

THE CORRELATIONS AMONG CRITICAL THINKING SKILLS, CRITICAL READING SKILLS, AND READING COMPREHENSION

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Abstract: Critical thinking skills, critical reading skills, and reading comprehension were the most crucial life skills that should be mastered by the students, especially for university students. The objectives of this study were: (1) to find out whether or not there was a significant correlation among students critical thinking skills and reading comprehension, (2) to find out whether or not there was a significant correlation among critical reading skills and reading comprehension, and (3) to find out whether or not there was a significant correlation among the predictor variables (critical thinking skills and critical reading skills) and the criterion variable (reading comprehension) of English Education Study Program students of UIN Raden Fatah Palembang. In this study, 90 undergraduate English Education Study Program of UIN Raden Fatah Palembang in the academic year 2018/2019 in the fourth semester were chosen as a sample by means of purposive sampling. This study conducted correlational research design. The data were collected by using tests. Pearson Product Moment correlation and regression were used to analyzed the data. Based on the data collected and analyses applied in this study, the findings revealed that (1) there was a significant correlation among critical thinking skills and reading comprehension with r-value 0.810, (2) there was a significant correlation among critical reading skills and reading comprehension with r-value 0.844, (3) there was a significant correlation among predictor variables (critical thinking skills and critical reading skills) gave 71.3% contribution to criterion variable (reading comprehension).

Keywords: *critical thinking; critical reading; reading comprehension*

INTRODUCTION

In education, critical thinking skills cannot be separated from language learners. They are constantly exposed to different types of information from what they have to see and read which require them to be able to investigate as well as critical thinking skills simultaneously. Critical thinking skills cannot develop naturally and automatically. The skills must be practiced to increase students' engagement to have the potential effect. They need to be taught, learned, and practiced (Hammond, Flook, Harvey, Barron, & Osher, 2020; Ghanizadeh, Hoorie, & Jahedizadeh, 2020; Trinidad, Ngo, Nevada, & Morales, 2020). The practice of critical thinking

should be integrated in classrooms through questioning and reasoning. The students should be encouraged to question all information they got and they must also have reasons for their beliefs and actions. A study is conducted by Saleh (2019) that it is a must that students' critical thinking must be stimulated. It is relevant to Pnevmatikos, Christodoulou, & Georgiadou (2019) that students' critical thinking skills must be promoted. They argued an instructional approach that is values and knowledge education (VaKE) to apply. Meanwhile, the teachers has good perspectives toward the integration of teaching critical thinking in the classroom since this skill can be an intellectual stimuli to facilitate

student's learning. Therefore, education for now on should pay close attention to the development of student's thinking skills. Curriculum and implementation in relation to critical thinking must be designed (Bezanilla, Nogueira, Poblete, & Dominguez, 2019).

The cultivation of thinking skill has been the focus of education for years. It is one of the most life skills that should be possessed by all people in order to survive in the future life (UNESCO, 2011).

Beside critical thinking skills, good at reading literacy is also important because it can help students to engage with the progress of information in the global era. Reading is not only the way to share ideas between the writer and the readers, but also a very common way used by most of people in order to get information and enrich their knowledge. Reading is a receptive skill, but it practically involves an active process of thinking and has cognitive consequences for the readers. According to Yamasaki, Mcgregor, & Booth (2020), one of the categories in reading skills is critical reading skills. Critical reading skills are skills that will help students be able to analyze, synthesize, and evaluate what is read as it represents a cognitive skill that is academically has high relevancy. When teachers expose students to critical reading skills, they will also make students see the cause – and – effect or comparing relationships in the text, or adopting critical stance toward the text. In other words, when teachers teach critical reading skills to students, they will develop students to be critical thinkers as well because when they do critical reading it will lead to critical thinking (critical reading will come first before critical thinking). It means that, students need to have fully understood a text where they would analyze, synthesize, and evaluate it, then only they would think critically about the text – choose or reject the ideas put forward, agree or disagree with the issues, and most important of all they know the reasons why they do it.

Moreover, reading comprehension is related close to critical thinking skills and critical reading skills. Reading comprehension itself is a cognitive process of making meaning from text. The goal, therefore, is to gain an overall understanding of what is described in the text rather than to obtain meaning from isolated words or sentences (Woolley, 2011). It means that, reading comprehension is the ability to process text, understanding its meaning, and to integrate with what the readers already knows. It

is clear that the process involves analytic thinking and evaluating what one reads that requires to the higher order comprehension (cognitive skills) such as making inferences, reasoning and judging. These skills are important in order to infer, compare, distinguish between fact and opinion, and identify the author's intention.

In this information era, students must have critical thinking skills, critical reading skills, and reading comprehension ability. Critical Thinking skills will help students and graduates to achieve higher levels in their study and profession. Critical thinking skills will help create students become leaders and professionals that are self-governing. Then, critical reading skills will help students to not only know how to convert orthographic symbols to language (word attack skills), use context and knowledge to comprehend what is read (comprehension skills), or see larger sentences as wholes, but also it can help students to read fluently (fluency skills). Further, if students have critical reading skills, they would definitely have good reading comprehension skills and could be successful in schools or universities. Students with good reading comprehension skills could perform well in any subject or course because they have developed the critical reading skills to not only understand but analyze any text given to them. This will also help them to score better in any tests or exams they have to take in schools. The more crucial goal here is that teachers will prepare them to be better students if they embark in any program at the tertiary education (Hudson, 2007).

In the Faculty of Teacher Training and Education of UIN Raden Fatah Palembang, the students were practiced and taught to be a teacher. Ideally, a teacher should be good at thinking and reading skills. For English majoring, thinking skills and reading skills was taught from semester 1 to semester 3. The writer assumed that critical thinking skills, critical reading skills and reading comprehension were practiced in integrative during reading classes. Based on this assumed, this study attempted to know (1) whether or not there was any correlation between critical thinking skills and reading comprehension, (2) whether or not there was any correlation between critical reading skills and reading comprehension, (3) whether or not there was any correlation between predictor variables (critical thinking skills and critical reading skills) and criterion variable (reading comprehension) of

English Education Program students of UIN Raden Fatah Palembang.

Fatah Palembang in the academic year 2018/2019.

METHOD

Method of the study

In this study, the writer used a quantitative research approach with a correlational research design. Creswell (2012, p. 338) stated that a correlation is a statistical test to determine the tendency or pattern for two or more variables or two sets of data to vary consistently. In this study, the writer has found that there was a significant correlation between variables: critical thinking skills, critical reading skills and reading comprehension of English Education Study Program students of UIN Raden Fatah Palembang.

Site and participant

In this study, the total number of the population were 270 students of English Education Study program students of UIN Raden Fatah Palembang in the academic years 2018/2019.

Moreover, in the process of taking samples, the writer used a purposive sampling. According to Johnson and Christensen (2012, p. 231) purposive sampling is the way of researcher specifies the characteristics of a population of interest and then tries to locate individuals who have those characteristics. It is a nonrandom sampling technique in which researcher solicits persons with specific characteristics to participate in a research study. Since this study aimed at seeing the correlations among critical thinking skills, critical reading skills and reading comprehension, only students who had taken all the reading courses (Reading I, Reading II, Reading III and Intensive Reading) were taken as the sample. Because the fourth-grade students had already taken and passed all the reading classes, they were considered as the sample. A purposive sampling was used in this study to take 90 samples from 270 undergraduate students of English Education Study Program of UIN Raden

Technique for collecting the data

The data were collected by using tests which measured student's critical thinking skills, critical reading skills and reading comprehension. Student's critical thinking skills measured by using Collegiate Assessment of Academic Proficiency (CAAP) critical thinking test that designed by American College Testing (ACT) program in 2008. The test comprised 32 items of multiple choices that measured the students' skills in analyzing, evaluating, and extending (creating) arguments. Then, for the students' critical reading skills measured by using a ready-made test of the SAT for critical reading published by Peterson's in 2005. The test consists of 20 items of multiple choices that measured the student's skills in evaluating an argument, analyzing an argument, analyzing the limitation of the study and concluding an argument. Moreover, for students' reading comprehension measured by using TOEFL Preparation test from Heinemann in 1996. The total questions of the reading comprehension test were 50 questions in form of multiple choices that measured the student's skills in analyzing main idea, analyzing detail, analyzing cause-effect, analyzing inference, evaluating vocabulary, evaluating sequence, and analyzing the author's tone.

Technique for analyzing the data

The data collected were analyzed using descriptive and inferential analysis.

RESULTS AND DISCUSSION

The descriptive analysis of the test results

This analysis summarized the general information about the students' test results of critical thinking skills, critical reading skills and reading comprehension. Therefore, this analysis included; (1) the results of critical thinking test, (2) critical reading test, and (3) reading comprehension test.

Table 1. *Descriptive statistics of variables measured*

	N	Minimum	Maximum	Mean	Std. Deviation
Critical thinking	90	19	78	59.28	17.021
Critical reading	90	20	75	46.17	14.727
Reading comprehension	90	26	80	46.76	13.646
Valid N (listwise)	90				

Based on the statistical analyses, the results showed critical thinking minimum score was 19, maximum score was 78, mean score was 59.28 and the standard derivation was 17.021. Next, the results showed critical reading minimum score was 20, maximum score was 75, mean score was

46.17, and the standard derivation was 14.727. Then, the results showed reading comprehension minimum score was 26, maximum score was 80, mean score was 46.76 and the standard derivation was 13.646.

Table 2. *Score distribution of critical thinking*

Level of Critical Thinking	Score Interval	Number of Students	Percent (%)
Very Good	64 – 80	8	8.8
Good	48 – 63	44	48.8
Average	32 – 47	19	21.1
Poor	16 – 31	19	21.1
Very Poor	0 – 15	0	0

Based on the descriptive data above, there were 8.8 % students who had very good in critical thinking, 48.8 % had good in critical

thinking, 21.1 % had average in critical thinking, 21.1 % had poor in critical thinking, and 0 % had very poor in critical thinking.

Table 3. *Score distribution of critical reading*

Level of Critical Reading	Score Interval	Number of Students	Percent (%)
Excellent	80.00 – 100.00	0	0
Good	70.00 - 79.99	50	55.5
Average	60.00 – 69.99	19	21.1
Poor	50.00 – 59.99	12	13.4
Very Poor	0.10 – 49.99	9	10

From the result above, it found that there were 0 % students who had excellent level of critical reading, 55.5 % students had good level of critical reading, 21.1 % had average level of

critical reading, 13.4 % had poor level of critical reading, 10 % had very poor level of critical reading, and 0 % had failed in critical reading.

Table 4. *Score distribution of reading comprehension*

Level of Reading Comprehension	Score Interval	Number of Students	Percent (%)
Excellent	80.00 – 100.00	1	1.1
Good	70.00 - 79.99	56	62.2
Average	60.00 – 69.99	20	22.2
Poor	50.00 – 59.99	9	9.9
Very Poor	0.10 – 49.99	4	4.4

From the data, it can be seen that there were 1.1 % students who had an excellent reading comprehension, 62.2 % had good reading comprehension, 22.2 % had average reading comprehension, 9.9 % had poor reading comprehension, 4.4 % had very poor reading comprehension, and 0 % had failed in reading comprehension.

The results of normality, homogeneity, and linearity tests

Before analyzing all of the results statistically, it should be ensured that the data were normal, homogeneous, and linear. The data were obtained from the results of the tests. The results showed that the data of critical thinking, critical reading and reading comprehension tests were normal,

homogeneous, and linear since the significance value were higher than 0.05. The results were presented in the following table:

Table 5. *The results of normality*

Variables	Kolmogorov Smirnov	Sig.
Critical Thinking	0.086	.099
Critical Reading	0.088	.079
Reading Comprehension	0.089	.077

Table 6. *The results of homogeneity (N=90)*

Variables	Levene Statistic	Sig.
Critical Thinking & Reading Comprehension	1.185	.296
Critical Reading & Reading Comprehension	0.986	.490

Table 7. *The results of linearity (N=90)*

Variables	F	Sig.
Critical Thinking & Reading Comprehension	0.847	.667
Critical Reading & Reading Comprehension	1.295	.205

The inferential analysis of the test results

This analysis included; (1) the correlations among critical thinking and reading comprehension, (2) the correlations among critical reading and reading comprehension, and

(3) the correlations among predictor variables (critical thinking and critical reading) and criterion variable (reading comprehension).

Table 8. *The correlation among students' critical thinking and their reading comprehension*

Correlations		Reading comprehension
Critical thinking	Pearson Correlation	.810**
	Sig. (2-tailed)	.000
	N	90

The correlations among students' critical thinking skills (X1) and reading comprehension (Y)

Pearson Product Moment Correlation Coefficient explain how well two sets of continues data correlate to each other. The value can fall between 0.00 (no correlation) and 1.00 (perfect correlation). Alpha level (p-value) is as determiner to see whether there is significant correlation or not. Generally, p-value lower 0.05 are considered significant. After conducting

Pearson product correlation between the outcome of the whole critical thinking categories scores and the reading scores, the result revealed that Pearson correlation value was 0.810 for sample of N=90, and the significance was .000 which is lower than 0.05 and that was considered significant. The Pearson's correlation coefficient r indicates that there was a strong significant correlation between students' critical thinking and their reading comprehension.

Table 9. *Correlation between critical thinking skills and reading comprehension*

	Critical thinking skills	Reading comprehension
Analyzing argument	Pearson Correlation	.170
	Sig. (2-tailed)	.093
	N	90
Evaluating an argument	Pearson Correlation	.233
	Sig. (2-tailed)	.020
	N	90
Extending an argument	Pearson Correlation	.177
	Sig. (2-tailed)	.080
	N	90

Correlation between critical thinking skills and its aspects to reading comprehension

Based on table 9, the result of the correlation analyses for each aspect of students' critical thinking and students' reading comprehension show that the correlation coefficient of analyzing argument and reading comprehension was 0.170 with the significance value was .093. The correlation coefficient of evaluating argument

and reading comprehension was 0.233 with the significance value was .020. The correlation coefficient of extending argument and reading comprehension was 0.177 with the significance value was .080. It means that among three aspects of critical thinking, only one aspect had significant correlation with reading comprehension. It was evaluating an argument.

Table 10. *Contribution critical thinking skills and its aspects and reading comprehension*

Model Summary				
Model	R	Change Statistics		
		R Square Change	F Change	Sig. F Change
1	.233 ^a	.054	5.550	.020

a. Predictors: (Constant), evaluating an argument

Based on the regression analysis using stepwise method, from three aspects of critical thinking, only evaluating an argument contribute

to reading comprehension, used enter method, the contribution of aspect of critical thinking was 5,4%.

Table 11. *The correlation among critical thinking skills and aspects of reading comprehension*

Reading comprehension	Critical thinking skills	
Main idea	Pearson Correlation	1
	Sig. (2-tailed)	
	N	90
Detail	Pearson Correlation	.993**
	Sig. (2-tailed)	.000
	N	90
Cause effect	Pearson Correlation	.957**
	Sig. (2-tailed)	.003
	N	90
Inference	Pearson Correlation	.969**
	Sig. (2-tailed)	.001
	N	90
Vocabulary	Pearson Correlation	.968**
	Sig. (2-tailed)	.002
	N	90
Sequence	Pearson Correlation	.976**
	Sig. (2-tailed)	.001
	N	90
Author tone	Pearson Correlation	.970*
	Sig. (2-tailed)	.030
	N	90

Based on table 11, the result of the correlation analyses for each aspect of students' critical thinking and students' reading comprehension aspects show that the correlation coefficient of main idea and critical thinking was 1 with the significance value was (-). The correlation coefficient of detail and reading comprehension was 0.993 with the significance value was .000. The correlation coefficient of cause-effect and reading comprehension was 0.957 with the significance value was .003. The correlation

coefficient of inference and reading comprehension was 0.969 with the significance value was .001. The correlation coefficient of vocabulary and reading comprehension was 0.968 with the significance value was .002. The correlation coefficient of sequence and reading comprehension was 0.976 with the significance value was .001. The correlation coefficient of author's tone and reading comprehension was 0.970 with the significance value was .030. It means that among seven aspects of reading

comprehension, only one aspect had no It was main idea.
significant correlation with critical thinking.

Table 12. *Contribution critical thinking skills and its aspects and reading comprehension*

Model Summary				
Model	R	Change Statistics		
		R Square Change	F Change	Sig. F Change
1	.987 ^a	.975	78.370	.013

a. Predictors: (Constant), vocabulary

Based on the regression analysis in table 12 97,5% to reading comprehension of English showed that the contribution of vocabulary was education study program of UIN Raden Fatah.

Table 13. *The correlation among students' critical reading skills and their reading comprehension*

Correlations		
		Reading Comprehension
Critical Reading	Pearson Correlation	.844**
	Sig. (2-tailed)	.000
	N	90

The correlations among students' critical reading skills (X2) and reading comprehension (Y)
The result showed there was a significant correlation between critical reading and reading comprehension, since the p-value .000 was lower than 0.05 and the Pearson correlation value was $r=0.844$. It meant that the strength of correlation between critical reading and reading comprehension was in strong level.

Table 14. *Correlation between critical reading skills and reading comprehension*

	Critical reading skills	Reading comprehension
evaluating an argument	Pearson Correlation	-.240
	Sig. (2-tailed)	.004
	N	90
analyzing an argument	Pearson Correlation	-.331
	Sig. (2-tailed)	.011
	N	90
analyzing the limitation of the study	Pearson Correlation	.391
	Sig. (2-tailed)	.443
	N	90
concluding an argument	Pearson Correlation	.106
	Sig. (2-tailed)	.822
	N	90

Correlation between critical reading skills and its aspects to reading comprehension

Based on table 14, the result of the correlation analyses for each aspect of students' critical reading and students' reading comprehension show that the correlation coefficient of evaluating argument and reading comprehension was -0.240 with the significance value was .004. The correlation coefficient of analyzing argument and reading comprehension was -0.331 with the significance value was .011. The correlation

coefficient of analyzing the limitation of the study and reading comprehension was 0.391 with the significance value was .0443. The correlation coefficient of concluding argument and reading comprehension was 0.106 with the significance value was .0822. It means that among fourth aspects of critical reading, only two aspects had significant correlation with reading comprehension. It was evaluating an argument and analyzing argument.

Table 15. *Contribution critical reading skills and its aspects and reading comprehension*

Model Summary				
Model	R	Change Statistics		
		R Square Change	F Change	Sig. F Change
1	.286 ^a	.082	8.669	.004
2	.377 ^b	.142	6.735	.011

Predictors: (Constant), evaluating argument
 Predictors: (Constant), evaluating argument, analyzing argument

Table 16. *Correlation between critical reading skills and aspects of reading comprehension*

	Reading comprehension	Critical reading
Main idea	Pearson Correlation	.985*
	Sig. (2-tailed)	.015
	N	90
Detail	Pearson Correlation	.957*
	Sig. (2-tailed)	.043
	N	90
Cause effect	Pearson Correlation	.933
	Sig. (2-tailed)	.067
	N	90
Inference	Pearson Correlation	.991**
	Sig. (2-tailed)	.009
	N	90
Vocabulary	Pearson Correlation	.965*
	Sig. (2-tailed)	.035
	N	90
Sequence	Pearson Correlation	.947
	Sig. (2-tailed)	.053
	N	90
Author tone	Pearson Correlation	.978*
	Sig. (2-tailed)	.022
	N	90

In addition, the writer also conducted to see the correlation between critical reading and each aspect of reading comprehension. As showed in table 16, it was found that the correlation between main idea and critical reading was 0.985 with the significance value was 0.015. The correlation coefficient of detail and critical reading was 0.957 with the significance value was .043. The correlation coefficient of cause-effect and critical reading was 0.933 with the significance value was .067. The correlation coefficient of inference and critical reading was 0.991 with the significance value was .009. The correlation coefficient of vocabulary and critical reading was 0.965 with the significance value was .035. The correlation coefficient of sequence and critical reading was 0.947 with the significance value was .053. The correlation coefficient of author's tone and critical reading was 0.978 with the significance value was .022. It means that among seven aspects of reading comprehension, there were two aspects had no

significant correlation with critical reading. They are cause-effect and sequence.

Table 17. *Contribution reading comprehension and students' critical reading*

Model Summary				
Model	R	Change Statistics		
		R Square Change	F Change	Sig. F Change
1	.985 ^a	.953	101.443	.015
2	.957 ^b	.926	112.324	.043
3	.991 ^c	.983	114.573	.009
4	.965 ^d	.958	102.654	.035
5	.978 ^e	.965	111.785	.022

Predictors: (Constant), main idea
 Predictors: (Constant), detail
 Predictors: (Constant), inference
 Predictors: (Constant), vocabulary
 Predictors: (Constant), author tone

The writers also found the contribution aspects of reading comprehension and critical reading. Table 17 showed the result of regression analysis of each aspect of reading comprehension to critical reading using stepwise method. It showed that main idea, detail, inference, vocabulary and author tone had contribution from the seven aspects of reading comprehension to critical reading. The contribution was 95, 3% for main idea, 92,6% for detail, 98,3% for inference, 95,8% for vocabulary and 96,5% for author tone.

Regression analysis

Regression analysis by using stepwise method was applied to find out the contribution of critical thinking and critical reading to reading comprehension, to find out the contribution of critical thinking concept and its aspects to reading comprehension, and to find out the contribution of critical reading and its aspects to reading comprehension to English education student of UIN Raden Fatah Palembang.

Table 18. *The correlations among predictor variables (critical thinking and critical reading) and criterion variable (reading comprehension)*

Variable	R	R Square	F	Sig.
Predictor variable and criterion variable	.844	.713	218.809	.000

The result showed that the correlation coefficient between predictor variables total and criterion variable total was .844 with significance value was .000. it means that there was a significant correlation between predictor variables and criterion variable. Moreover, the contribution of predictor variables (critical thinking and critical reading) to criterion variable (reading comprehension) was 71,3%. Table 18 presents the result of regression analysis among critical thinking and critical reading to reading comprehension.

Discussion

The result of the tests showed that the fourth semester students of UIN Raden Fatah Palembang were in good level in terms of critical thinking. It can be seen from the table 2. They can think in clearly and rationally. They have a skill to engaged in reflective and independent thinking;

they can decide what to do or what to believe. It was in accordance with what Ennis (2011) state that critical thinking was the ability to think clearly and rationally. It included the ability to engaged in reflective and independent thinking; the ability to decided what to did or what to believed. Meanwhile, because of they were students of the higher education, it was easy to do critical thinking. They have the greatest experiences to think critically. This was in accordance with Akyuz and Samsa (2009) claimed that taught students critical thinking skills was the aim of higher education. They believe that one of the greatest experiences for students in higher education was to think critically and to challenge other students' ideas with those of their own. Thinking skills were crucial for educated persons and by these skills they could cope with a rapidly changing world and deal with reality in a reasonable and independent manner.

From the data distribution showed that students were in good level in terms of critical reading. This finding was the same as the study conducted by Dianti (2013) that the critical and analytical reading skills of the English Education Study Program Students of Sriwijaya University were at good level despite their high academic achievement. This might happen because the students can comprehend what they were reading, not only literal meaning but also implied meaning. It was in line with what Pirozzi (2003) state that a critical reading was as very-high level comprehension of written material requiring interpretation and evaluation skill and it also entails using reference to go beyond what was stated explicitly, filling in informational gaps and coming to logical conclusions. Moreover, critical reading refers to a careful, active, reflective and analytic reading (Kurland, 2006).

Moreover, the data distribution of reading comprehension showed that most of the fourth semester students of UIN Raden Fatah Palembang was in good level. It can be seen from the table 11. It could happen since they had already completed their reading courses, so they have enough knowledge and skills in reading comprehension questions. However, there was no one in excellent level of reading comprehension. This might happen due to many factors involving in comprehension. As stated by Baier (2005) that is reading comprehension is a skill that is critical in the educational success of all individuals. Without adequate reading comprehension skills, students could struggle in many subject areas. In addition, Hansen (2016) also stated that reading is often described as an interactive process, where comprehension is a result of joint efforts from the author and the reader. The author has to formulate the content so that it is interpretable, whereas the reader must mobilize the skills and knowledge needed to comprehend the text – a joint venture. However, the reader is the one most likely to spoil the process; fail to understand, give in, and stop reading. Hence, the reader is considered to be the one most responsible for gaining comprehension. It might be that the students did not engage fully during the test, or they had low motivation to do the test. Besides, their interest and ability in thinking critically also influences their achievement in reading comprehension.

The correlation analysis between critical thinking and reading comprehension showed that there was a significant correlation. This finding was in accordance with what Commeyras (1990, p. 201) stated that critical thinking is closely

related to reading comprehension. It was similar to the view that reasoning was an integral part of reading. Critical thinking which involved reasoning, was the process the reader used to determine which interpretations were consistent with textual evidence and background knowledge. Furthermore, there is a connection between critical thinking and reading comprehension. Readers must have the inferential and reasoning skills to establish meaningful connections between information in the text and relevant background knowledge. Central to these skills is knowing what constitutes an inferential or causal/logical relation and being able to recognize or construct one when need in order to form a coherent mental representation of the text (Broek & Kremer, 2000, pp. 11-12).

There was a significant correlation between critical reading and reading comprehension. This finding was in accordance with what Cleveland State University (2017) mentioned that a critical reading means that a reader applies certain processes, models, questions, and theories that result in enhanced clarity and comprehension. In line with that, reading comprehension could be utilized by a set of related concepts, such as: critical thinking, prior knowledge, inference-making, and meta-cognitive skills (Zabit, 2010). Besides, Shanahan (2006) supports that one of the components that could influence the readers to read effectively was comprehension. Comprehension was the only reason for reading. Without comprehension, it meant that someone just read for word calling exercise. By comprehending the meaning of the text deeply, someone could enrich their knowledge, skills, and experiences.

Last, the answers to the three questions can be seen from the results of statistical analyses showing that there were significant correlations among predictor variables (critical thinking and critical reading) and criterion variable (reading comprehension achievement). It can be concluded that students' critical thinking and critical reading had effect on their reading comprehension. It could happen since critical thinking becomes the starting point to involve in the way students gain the information especially in a reading activity, and the critical reading helps the students process and connect their prior knowledge and the new knowledge they get while reading. Critical reading ability was largely explainable through fluent execution of critical thinking skills in that reading and thinking were two interdependent skills and the reading process could not take place

without active use of thinking activities (Zin, Eng & Galea, 2014). Critical reading was related to critical thinking in that engaging critically in reading meant employing critical thinking skills while reading. These included the analysis and inference skills. Reading critically differed from other forms of reading in that the reading act goes beyond the literal meaning by questioning the functions and purposes of the text. Reading with awareness of similarities and differences between what the reader has already seen and what he was seeing in the text he is reading. It was clear that the process involves analytic thinking and evaluating what one reads i.e. it required higher order cognitive skills and comprehension skills such as making inferences, reasoning and judging. These skills were important in order to infer, compare, distinguished between fact and opinion, and identify the author's intention.

CONCLUSION

Based on the basis of the interpretation of this study, the following conclusions can be drawn. First, the students' critical thinking was significantly correlated with their reading comprehension. In other words, the more students' critical thinking in reading, the better their reading comprehension.

Second, the students' critical reading was significantly correlated with their reading comprehension. Therefore, it can be said that the more students' critical read, the better their reading comprehension.

Third, the students' critical thinking, critical reading, and reading comprehension were significantly correlated. In conclusion, students' success in reading comprehension was significantly affected by their critical thinking and critical reading.

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