

Exploring the Relationship between Metacognitive Strategies and Reading Comprehension among Senior High School Students

Desi Surlitasari Dewi ¹, Deviany Premini ²

English Education Study Program, University of Riau Kepulauan, Batam

belldaisy46@gmail.com ¹; devianypremini1995@gmail.com ²

Abstract

This study was intended to find out whether there is any significant correlation between students' metacognitive strategies and students' reading comprehension. Besides, it aimed to find out whether the variables had a positive or negative correlation. Therefore, the researcher conducted a correlational research. The population of the study was 286 and the sample was 37 students of tenth grade of SMA N 19 Batam taken by cluster random sampling. Questionnaires of Survey of Reading Strategies (SORS) were used as instruments to measure the students' metacognitive strategies and Reading Comprehension test was used to assess students' reading comprehension. Then, the researcher found out the validity and reliability of both instruments. After finding out that the distribution of the data was normal, the researcher analyzed the correlation by using Person Product Moment formula to find out the correlation both students' metacognitive (X variable) and students' reading comprehension (Y variable). The data analysis found that r_{count} was $- (0.056)$ means that the variables had a negative correlation. Then, it showed that $t_{counted}$ $(0,331)$ and t_{table} (2.030) . It indicates that $t_{counted}$ was smaller than t_{table} . It means that alternative hypothesis is rejected and null hypothesis is accepted. The research found out that there was no significant correlation between students' metacognitive and students' reading comprehension at tenth grade of SMA N 19 Batam.

Keywords: Correlation, Metacognitive, Reading Comprehension

INTRODUCTION

English is served as foreign language in Indonesia. According to Burns and Richards (2009) in Sulistiyo (2015:1), English proficiency is needed for citizen in countries that are very active in the global economy, and who need the access to get information and knowledge for social and economic development. Indonesia is a developing country, so the increasing of need for English fluency making it as a subject in education.

In Indonesia, English has been introduced as a required subject in junior and senior high school. One of the problems in Teaching English as Foreign Language (TEFL) is low motivation and low English competence

among students in Indonesia particularly in mastering four skills in Teaching English as Foreign Language (TEFL). Skills in English learning are listening, speaking, reading, and writing. Listening means to understand what someone say. Furthermore, speaking is one of the four language skills that focused with the competence to utterance words or articulate sound with ordinary voices, while reading is a process of looking at a series of words and getting meaning of them, and retrieving the information. The last skill is writing, which is an expression of ideas, thoughts, and stories on a piece of paper.

One of the most fundamental skill for student of English as Foreign Language is reading comprehension. The ability to read academic book is one of the crucial skill. There are some factors that can influence reading comprehension. One of that is metacognitive strategy in reading comprehension. According to Flavell (1979) in Meniado (2016:119), “metacognition involves one’s knowledge about his thinking processes and products, active monitoring, and regulation of cognitive processing activities”. Based on explanation above, metacognitive is one of strategies that involves a person's knowledge about the process of thinking. Each variable will give a different impact in students’ reading comprehension.

Based on the explanation above, the researcher is interested to see the correlation between Students’ Metacognitive Strategies and Reading Comprehension among Senior High School Students of SMAN 19 Batam.

Reading Comprehension

Al Noursi (2014) in Meniado (2016:118) explains that reading competence is a necessary skill in learning process, both in school and university. He also states that reading skill will be a crucial skill for students and professional in future. According to Rumelhart (1981) in Meniado (2016:118) states that reading comprehension is a composite cognitive process. It is several dimensional components, process, and factor concern in contrastive settings with the purpose to obtain good ways to increase student knowledge. Based on the explanation above reading comprehension is cognitive process that includes several dimensional of section, process, and the factor which purpose to get knowledge or information from the text.

Reading Assessment

According to Brown (2004:206), Assessment of reading consists of these features:

- 1) Main idea (topic); is the important information that tell about topic or idea of a paragraph or in particular of text. The main idea will make easy the reader to know the important information that there are in the text.
- 2) Expression /idioms/phrases in context; in text there are expression/idioms/phrases the purpose of it are to know the meaning of expression/idioms/phrases that appear in the text and change it with the true meaning based on the context.
- 3) Inference (implied detail); is implicit information, the information is not written directly in the text. The readers should find the information based on their through when read the text.
- 4) Grammatical features; class of units (such as noun and verb)
- 5) Detail (scanning for a specifically stated detail); is detail information about the text.
- 6) Excluding fact not written (unstated details); unwritten fact in the text, intend to measure level of accuracy of students when reading the text.
- 7) Supporting idea(s); to support the main idea.
- 8) Vocabulary in context; is vocabulary that there are in the text, like antonym or synonym that suitable with the context of the text.

Metacognitive Strategy

Metacognitive is one of strategies in reading, according to Iwai in Meniado (2016 :119) states that metacognition is most importantly in reading comprehension in expansion of some linguistic, cognitive, and social skills. According to Meniado (2016:119) explains that in reading comprehension, metacognitive are activities that makes students conscious of their thoughts when doing the reading task. Metacognition is a strategy about one's consciousness in reading comprehension processing in reading or thinking process. It is a strategy that is planned, discussed, instructed, and forward-oriented to know the level or progress in cognitive task.

The Categories of Model Metacognitive

According to Flavell (1979) in Iwai (2014:151), There are four categories of model metacognitive are:

- a) **Metacognitive Knowledge**
The first category in metacognitive it refers to cognition or belief about something that may affect cognitive activity, the factors that influence are:
 1. **Person**
It is variable that related with knowledge or consciousness about how person study and process of cognitive activities
 2. **Task**
The second variable in metacognitive knowledge, is knowledge about the nature of the task and the requirements of the task.
 3. **Strategy**
The third variable in metacognitive knowledge, includes the strategies that using for reach the aim.
- b) **Metacognitive Experiences**
Metacognitive experiences or regulation refers to a set of activities that help learners to control their learning. According to Flavell (1979) in Iwai (2014:151) states that metacognitive experiences as an experience felt consciously and related with someone's intellectual.
- c) **Metacognitive Goals or Task**
Metacognitive goals or task refer to the aim or purpose of any cognitive attempt.
- d) **Metacognitive Action or Strategy**
It refers to activities that used by student to achieve goals or metacognitive objectiveness.

METHODOLOGY

In this research, the researcher used correlational research to find out the significant correlation between students' metacognitive strategies and students' reading comprehension. According to Sudijono (2014 :188) states that correlation research is one of techniques of analysis in statistic which is used to find correlation between two variables of ratio or interval data. The aims of correlational research are to find evidence (based on existing data), answer the question of whether there is a relation between variables, and to get clarity and certainty whether the relation between variables is significant.

The population in this research is tenth grade of SMA N 19 Batam that consists of 286 students. In this study the researcher used cluster random sampling as sampling technique resulting to 37 students as the sample of the research. In collecting the data, the researcher distributed Survey of Reading strategies (SORS) questionnaire and Reading Comprehension Test.

RESULT

1. Validity and Reliability of questionnaire

Based on the calculation of validity by person product moment formula, all items of the questionnaire is valid and for the coefficient of reliability the result is 0.90. According to Siregar (2017:90) states that criteria of instrument based on alpa cronbach formula is reliable if coefficient of reliability $R_{counted} > 0.6$. The $R_{counted}$ (0.90) is more than 0.6, it means that the instrument of questionnaire is very reliable

2. Validity and Reliability of Reading Test

Based on the calculation validity of reading test by point biserial formula, from 50 items only 33 item were valid. The researcher only took 30 items of reading comprehension test from valid item that were used to sample. The researcher took 30 items of reading comprehension for the test's scoring practicality.

The obtained reliability calculation is 0,85 based on KR- 21 formula. According to Siregar (2017:111) states that the criteria of instrument is reliable if coefficient of reliability $R_{counted} > 0.7$. $R_{counted}$ (0.85) is more than 0.7, it means that the instrument test is very reliable.

3. Testing Hypothesis

After found out that the data has a normal distribution, the researcher used formula of Pearson product moment correlation to count the correlation between variable x and variable y.

According to Riduwan and Sunarto (2015:80) the formula of person product moment correlation is;

$$r_{XY} = \frac{\sum_{i=1}^n \frac{X_i - \bar{X}}{s_x} \cdot \frac{Y_i - \bar{Y}}{s_y}}{\sqrt{\sum_{i=1}^n \left(\frac{X_i - \bar{X}}{s_x}\right)^2 \cdot \sum_{i=1}^n \left(\frac{Y_i - \bar{Y}}{s_y}\right)^2}}$$

Explanation:

r_{XY} = Correlation of Coefficient between variable X and Y

x = Deviation of the mean for the variable X

y = Deviation of the mean for the variable Y

$\sum X \cdot Y$ = The number of multiplications between the values of X and Y.

x^2 = The square of the value X

y^2 = The square of the value Y

Based on the result of the calculation, the coefficient correlation of students' metacognitive strategies and reading comprehension is $- (0.056)$. It shows that it has negative correlation between students' metacognitive and students' reading comprehension. Negative correlation symbolized by minus means that higher score in variable x (students' metacognitive) will have lower score in variable y (students' reading comprehension test).

To see whether the correlation is significant, t_{xy} is compared with $t_{counted}$ the researcher continued to find the significance by count the $t_{counted}$, used formula in Riduwan and Sunarto (2015:83).

$$\begin{aligned} t_{counted} &= \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} \\ &= \frac{0.056\sqrt{37-2}}{\sqrt{1-0.056^2}} \\ &= \frac{0.056\sqrt{35}}{\sqrt{1-0.003}} \\ &= 0.331 \end{aligned}$$

After the researcher found $t_{counted}$ then the researcher compared $t_{counted}$ and t_{table} . With the rule of decision if $t_{count} \geq t_{table}$ then H_0 is rejected but if $t_{count} \leq t_{table}$ then H_0 is accepted. Based on calculation above, $\alpha = 0.05$ and $n = 37$. $Dk = n - 2 = 37 - 2 = 35$ so obtained $t_{table} = 2.030$

It means that t_{table} more than $t_{counted}$, or t_{count}

$(0.331) < t_{table}(2.030)$, it means that null hypothesis is accepted, and alternative hypothesis is rejected. Therefore, there is no significant correlation between students' metacognitive strategies and students' reading comprehension.

However, the correlation is not adequate significant or very low correlation when it is seen in table of correlation coefficient. Therefore, it is concluded that students' metacognitive has no significant correlation with students' reading comprehension.

N	r_{xy}	$t_{counted}$	t_{table}	Status
37	0.056	0.331	2.030	Ho Accepted

DISCUSSION

Based on the result of calculation, it can be concluded that there was no significant correlation between students' metacognitive strategies and students' reading comprehension. The result showed that the coefficient correlation of them was r_{xy} (0,056) and $t_{counted}$ (0,331) with the error rate (α) = 0,05 and dk = n-2, dk = 37-2 obtained $t_{table} = 2,030$. This indicates that $t_{counted}$ less than t_{table} or $t_{counted}$ $(0.331) < t_{table}(2.030)$.

It means that alternative hypothesis was rejected and null hypothesis was accepted. Therefore, there was no significant correlation between students' metacognitive and students' reading comprehension. Based on the finding, it can be concluded that in general students' metacognitive strategies does not affect student reading comprehension. The student who has high

metacognitive does not always have high score in reading comprehension. It can be concluded that there was no significant correlation between students' metacognitive and students' reading comprehension of the tenth grade students of SMA N 19 Batam.

It means that even general students have high metacognitive not necessarily followed high score in reading comprehension test. The result of survey of reading strategies questionnaire in this study almost students usually try to translate from English to Indonesia. In reading comprehension the student should determine the meaning in order to find main idea, implied detail, grammatical feature, detail information, and vocabulary in context. But in this study even the students usually try to determine the meaning, it means that the student have metacognitive but not all of the students can answer correctly.

It means that variable x (metacognitive strategies) has no significant correlation with variable y (reading comprehension). The researcher assumed that metacognitive does not affect the student reading comprehension, but background of knowledge is very important in reading comprehension, therefore students metacognitive do not influence the students reading comprehension. Based on the finding, it was found that generally the students had high metacognitive strategies, but they have low score in reading comprehension test.

REFERENCES

- Brown, H. D. (2004). *Language Assasment: Principal and Classroom Practice*. New York: Longman.
- Iwai, Y. (2011). The Effects of Metacognitive Reading Strategies: Pedogogical Implications for EFL/ESL Teachers. *The Reading Matrix*, 11(2), 150-159. Retrieved from http://www.readingmatrix.com/articles/april_2011/iwai.pdf
- Meniado, J. C. (2016). Metacognitive Reading Strategies, Motivation, and Reading Comprehension Perormance of Saudi EFL Students. *English*

Language Teaching, 9(3), 117-129. Retrieved
<https://files.eric.ed.gov/fulltext/EJ1095593.pdf>

from

Ridwan, & Sunarto. (2015). *Pengantar Statistika untuk penelitian Pendidikan, Sosial, Ekonomi, Komunikasi, dan Bisnis*. Bandung: Alfabeta.

Siregar, S. (2017). *Statistik Parametrik untuk Penelitian Kuantitatif*. Jakarta: PT Bumi Aksara.

Sudijono, A. (2014). *Pengantar Statistik Pendidikan*. Jakarta: Rajawali Pers.

Sulistiyo, U. (2015). *Improving English as a Foreign Language Teacher Education in Indonesia: The Case of Jambi University*. RMIT university. Retrieved from
<https://researchbank.rmit.edu.au/eserv/rmit:161521/Sulistiyo.pdf>