The Effect of Metacognitive Strategy on Students' Reading Comprehension of Academic Text

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Abstract

Reading comprehension is an active reading process in which students can dig up information in reading sources. These skills are very important so that students are able to adapt and compete in facing future challenges. In the reading process, students are required to be active and understand how and when to implement strategies so that reading comprehension is more effective. One strategy that can be used is the metacognitive strategy. Metacognitive abilities are very important for reading achievement. The Purpose of Metacognitive is to prepare further develop readers to become more aware of their thinking alone while reading. Educators provide express preparation on the use of reading strategies. Metacognitive strategy trains students to manage themselves to get reading comprehension. This research aims to investigated whether there was significance difference on students reading comprehension of academic text by using metacognitive strategy and who are not. The research used quasi experiment, all students of six semesters were the population of the research while techniques sampling was purposive sampling. Six semester students from 6A and 6D are the sample in this research. From data analysis and finding, metacognitive give positive effect toward students reading comprehension of academic texts. Sig. (2-tailed) value was $0.015 < 0.05$ means that Ho was rejected and Ha was accepted. It concludes that there was significance difference on students' reading comprehension of academic text score thought by metacognitive and conventional strategy.

Keywords: Academic Text, Metacognitive Strategy, Reading Comprehension

A. Introduction

With the development of civilization in the world, the need for knowledge also increases. One of the keys for getting knowledge is through reading. Reading is one of the very crucial activities and can't be ignored in lifetime. The reading activity also strengthened Islamic teachings. It can be seen in Surah al-Alaq, it is recited: Read, In the name of the Lord Who created. It showed that reading activity occupies a very special position in Islam. Therefore, as Muslims, mankind should spend a special time reading. The important point in reading is comprehension. Mikulecky & Jeffries (2007) stated that comprehending what you read is more than just recognizing and understanding words. True comprehension means making sense of what you read and connecting the ideas in the text to what you already know. It also means remembering what you have read. In other words, comprehending means thinking while you read.

Although reading activity cannot be separated in everyday life, in fact the readability of society, especially Indonesians, is still in the low category. Indonesia's reading score is ranked 72 out of 77 countries in the most recent PISA (Programme for International Student Assessment) report, which was released on Tuesday, December 3, 2019. PISA reading assesses students' ability to comprehend, apply, and reflect on written texts in order to achieve goals, expand their knowledge and potential, and engage in societal activities. The measurement is the mean score. It is quite regrettable that Indonesians, who are primarily Muslim and are basically required to read, have low test results. It's especially challenging in this epidemic era since internet learning makes it challenging for kids to retain teachings. From observation and interview to Students of English department UIN FAS Bengkulu especially in Reading courses, the students mostly stated that the student don't enjoy in reading class. There are some obstacles faced by students such as students difficult in understanding the text, the lack of students' vocabulary, there isn't any appropriate strategy in teaching learning reading that can improve their motivation and ability in reading comprehension so that learning process become monotone and boring, even more in comprehending an academic text. Academic text is a texts or scientific papers can be manifested in various types, such as books, book reviews, research proposals, research reports, and scientific articles. The characteristics of academic texts are simple, concise, objective, and logical. The four characteristics of the text, linguistically, are able to reveal to the reader the level of scholarly an academic text (Salam et al., 2018). Therefore, reading strategy is crucially implemented in reading class. The ability to read proficiently requires great attention to detail, namely in the areas of comprehension monitoring and strategic awareness.

One alternative strategy in reading comprehension is Metacognitive strategy. Sari (2016) stated that Reading methods that are considered to be metacognitive are those that a reader employs in order to improve their awareness and control over their reading comprehension, as well as their evaluation of that comprehension. They consist of strategy for planning, monitoring, and analyzing the situation. He went on to add that these techniques are typically utilized by readers when they are confronted with challenges since it is necessary for them to evaluate the situation and monitor their comprehension in order to ensure that they are effectively reading, despite the fact that doing so may cause their reading process to take longer. Metacognitive reading strategy awareness has become one of the effective ways to facilitate students reading comprehension in the field of second/foreign language studies Ahmadi et. al (2013) define. Metacognition is the process of reflecting on and controlling one's own learning. This allows the reader to critically evaluate her own comprehension as she reads. She is conscious of her cognitive experience. In addition according to Babayiğit (2019) a reader uses metacognitive strategy before, during, and after reading to become aware of his or her own reading process. Students can organize their reading processes by using metacognitive awareness to make it easier for them to govern and monitor their reading. To put it another way, the student should read for the aim of self-evaluation in order to ascertain whether the reading process needs to be edited.

According to Aisah et. al (2021) there are three crucial abilities for metacognitive reading strategy regulation: Prior to reading, planning tactics are utilized, and monitoring strategies are used during reading. Monitoring is the process of consciously being aware of one's own text performance and understanding. These techniques include understanding language, asking oneself probing questions, summarizing, and determining the primary concept of each text. As

a result, monitoring makes it easier for readers to stay on task and lets them know when something isn't going well. 3. After reading, evaluating techniques are used. Examining focuses on what pupils set out to do, what they have achieved, and how they achieved it. For instance, readers may view things more clearly after reading a text.

Therefore, in this study, the researcher needs to implement Metacognitive reading strategy to improve students reading comprehension achievement. There were some similar researches conducted by other researcher for instance (Dangin, 2016) entitle metacognitive reading strategies awareness and reading comprehension: a correlational study. This research found that there is a positive relationship between student's metacognitive awareness and reading comprehension obtain. It means that this strategy turns to be one influential factor to determine student's success in reading. It was also in line with (Almubarak et al., 2019) The results of the study indicated that after undergoing training in modified metacognitive reading technique. The training helped the pupils achieve better results on the reading comprehension test than they had before. From those previous studies, researcher would like to implement Metacognitive strategy toward reading comprehension. The gaps were firstly from its method where researcher would like to use experimental research and also focus academic text in Islamic university students.

Usman et. al (2017) Using metacognitive methods when learning has several benefits. He claims that self-monitoring, which is an iterative process of evaluation during the learning process, is a benefit of metacognition tactics. Metacognitive techniques also foster superior learning and problem-solving abilities. Additionally, metacognition enriches and improves the learning process. Using metacognitive techniques like self-awareness and self-monitoring can help students become autonomous learners who can manage their own learning and acquire lifelong learning skills.

Research Question: Is there any significant difference of reading comprehension score between students who using metacognitive strategy and who are not? Research objective: The objective of the research is to find out whether metacognitive strategy has a significant effect on students reading comprehension of academic text.

B. Methods

Quasi-experimental was used in this research (Rukminingsih et al., 2020) one type of quantitative research is experimental research, which involves manipulating one or more independent variables while controlling for other pertinent variables and evaluating the impact on the dependent variable. Meanwhile A group-based research design is called a quasi-experimental design. The experimental and control groups weren't chosen at random. The experiment is the most powerful quantitative research method for establishing cause and effect relationships between two or more variable.

This research was conducted at UIN FAS Bengkulu. The location was at Bengkulu province. The population of this research was all the six grade students of English Department UIN FAS Bengkulu. There were 113 pupils in all among the four classes. Class 6 - A and Class 6 - D were the two classes chosen at random to serve as the samples for this study; a total of 52 students from each class served as the Experimental Group and the Control Group respectively.

Both courses have a certain number of pupils without exception. Tests and a questionnaire were the two tools the researchers used to collect the data. Before and after using metacognitive techniques with the Experimental group tests were performed to gauge the students' proficiency in recognizing and comprehending the meanings in reading passages. There were three elements to each test. First, text-based enquiries attempted to gauge pupils' capacity for finding.

Table 1. Design of pre-test and post-test of moderate group of students

Group	Pre-Test	Treatment	Post Test
Experimental	T1	X	T2
Control	T1		T2

Source: Design of Random Control Group, cited by Othman et. al. (2014). Table 1 Note: X: Treatment class given to experimental group using metacognitive strategy.
  T1: Pre-test results for experimental and control groups.
  T2: Post-test results for experimental and control groups.

Research instruments included reading texts, tests, survey and observation sheet. For the purpose of this study, academic material was selected. The primary distinction between academic text and non-academic text is that academic writing is written for the scholarly and research community in society, whereas non-academic text is written for the general public in society. The general public in society is the target audience for non-academic literature. Types of Academic Texts**:** Essays**,** Textbooks**,** Theses, Case studies, Reports, Research articles. In this case the researcher would like to choose some essays entitle the Hawaiian Islands, Natural disasters, the green revolution, Farming for the future. The four texts were adapted from Mikulecky published by Longman.

Written tests for both the experimental group and the control group were part of a set of comprehension assessments. Both groups of students in this study took the examinations before and after the study. The students were instructed to provide rapid answers to 15 subjective questions based on their comprehension of the literature they had just read. Each response received a value of 1 for the right response and 0 for the incorrect response. 2.7 Analyses of Data Statistical Package for the Social Science (SPSS) version 2.0 was used to collect and evaluate quantitative data from sets of questionnaires and comprehension tests. The t-test analysis was used to enhance the data by establishing mean comparisons. To compare the mean of the pre-test, an independent variable t-test was performed.

Statistical Package for the Social Science was used to collect and analyze quantitative data from sets of questionnaires and comprehension tests. The t-test analysis was used to elaborate the data by establishing mean comparisons. The mean pre- and post-test results for the control group and experimental group were compared using an independent variable t-test. Analyzing covariance (also known as One Way Ancova) was used to assess the impact of teaching reading comprehension while using metacognitive strategies. The significance level for each test is 0.05.

C. Results and Discussion

Using the Independent Sample t-Test (ISTT), it was determined whether there was a significant difference in pre-test reading comprehension performance between respondents who attended reading lessons using metacognitive strategy and respondents who attended reading lessons using conventional approach.

Descriptive statistics

The purpose is to describe and show the data in form of number of data, maximum score, minimum score, average score and etc.

Table 2. Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-test Experiment	26	20	90	50.19	18.192
Post-Test Experiment	26	40	90	62.88	13.577
Pre-test Control	26	20	90	50.38	17.316
Post-Test Control	26	25	85	52.50	16.016
Valid N (listwise)	26				

Normality test

Table 3. Test Normality

To see whether the research data distributed normal or not.

Tests of Normality

	Class	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Student's Achievement	Pre-Test Experiment	.111	26	.200[*]	.972	26	.668
	Post-Test Experiment	.123	26	.200[*]	.958	26	.361
	Pre-Test Control	.163	26	.075	.955	26	.308
	Post-Test Control	.094	26	.200[*]	.968	26	.579

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Based on the output above it showed that significance level (Sig.) both from Kolmogorov and Shapiro was > 0.05. It was concluded that research data was contributed normal.

Table 4. Independent Samples Test

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
posttest	Equal variances assumed	1.163	.286	2.522	50	.015	10.38462	4.11772	2.11393	18.65530
	Equal variances not assumed			2.522	48.696	.015	10.38462	4.11772	2.10844	18.66079

After conducting treatment to experimental group, researcher then give a posttest to both group to see the effect of metacognitive strategy toward students reading comprehension of academic text. The data was analyzed using independent sample t-test and calculated by SPSS. There is a significance difference between post-test and pre-test score. Metacognitive strategy gave positive effect to students' reading comprehension of academic text. It was in line with the research conducted by Djudin (2017), he claimed that Reading, writing, and other forms of problem-solving are just a few examples of the kind of situations in which students can benefit greatly from the application of metacognitive strategies, which play an important part in the learning processes that are designed to help students become independent and strategic learners. A number of strategies can be used by the teachers that enhance students' metacognitive skills.

D. Conclusion

Metacognitive strategy is one of alternative strategy that can give positive effect toward students reading comprehension because it can be trains students to manage themselves to get reading comprehension. From data analysis, it showed that students score increase after given treatment by using metacognitive strategy. Experimental class means score was higher than control class therefore it can be concluded that metacognitive strategy effective to improve students reading comprehension of academic texts.

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References

Ahmadi, M., Ismail, H., & Kabilan, M. (2013). The Importance of Metacognitive Reading Strategy Awareness in Reading Comprehension. *English Language Teaching*, *6*. https://doi.org/10.5539/elt.v6n10p235

Aisah, N., Surtiana, & Lucky R. Nurjamin. (2021). Metacognitive Strategies In Student's

Reading Comprehension. *English Education and Applied Linguistics (EEAL) Journal*, *4*(1), 1–4.

Almubarak, B., Sutarsyah, C., & Sukirlan, M. (2019). Metacognitive Strategy Training to Improve Students ' Reading Achievement . *U-JET: Unila Journal of English Teaching*, *8*(1). http://jurnal.fkip.unila.ac.id/index.php/123/article/view/17167/pdf

Babayiğit, Ö. (2019). Examination the Metacognitive Reading Strategies of Secondary School Sixth Grade Students. *International Journal of Progressive Education*, *15*(3), 1–12. https://doi.org/10.29329/ijpe.2019.193.1

Dangin. (2016). *Metacognitive Reading Strategies Awareness and Reading Comprehension : A Correlational Study Metacognitive Reading Strategies Awareness and Reading Comprehension : A Correlational Study*.

Djudin, T. (2017). Using Metacognitive Strategies to Improve Reading Comprehension and Solve a Word Problem. *JETL (Journal Of Education, Teaching and Learning)*, *2*(1), 124. https://doi.org/10.26737/jetl.v2i1.151

Mikulecky, B., & Jeffries, L. (2007). *Advanced Reading Power*. Pearson Education, Inc.

Othman, Y., Mahamud, Z., & Jaidi, N. (2014). The effects of metacognitive strategy in reading expository texts. *International Education Studies*, *7*(13), 102–111. https://doi.org/10.5539/ies.v7n13p102

Rukminingsih, Adnan, G., & Latief, M. A. (2020). Metode Penelitian Pendidikan. Penelitian Kuantitatif, Penelitian Kualitatif, Penelitian Tindakan Kelas [Educational Research Methods. Quantitative Research, Qualitative Research, Classroom Action Research]. In *Journal of Chemical Information and Modeling* (1st ed., Vol. 53, Issue 9). Erhaka Utama.

Salam, A., Mahfud, M., & Nurhusna, N. (2018). Characteristic of academic texts from systemic functional linguistics perspectives. *International Journal of Language Education*, *2*(2), 122–134. https://doi.org/10.26858/ijole.v2i2.5266

Sari, M, I. (2016). Cognitive and Metacognitive Reading Strategy Use and Reading Comprehension Performance of Indonesian EFL Pre-service Teachers. *Journal of Foreign Languange Teaching and Learning*, *1*(2), 46–61. https://doi.org/10.18196/ftl.1213

Usman, B., Aziz, Z. A., & Absida, N. R. (2017). Improving Reading Comprehension Using Metacognitive Strategies. *English Education Journal (EEJ)*, *8*(4), 425–438.