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The Effect of Metacognitive Strategies Implementation on Students' Reading Comprehension Achievement

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Metacognitive strategies are known to be important in improving reading achievement. This study investigated whether there was any significant difference on students' reading comprehension achievement score by using metacognitive strategies and investigated what metacognitive strategies implemented on students' reading comprehension achieving. All participants of this study were students in the eleventh grade of Senior High School. The data were collected by means of Reading Comprehension Test (RCT) and Metacognitive Strategy Questionnaire (MSQ). The results indicated that metacognitive strategies had positive effect on students' reading achievement. Based on eta-squared calculation the effect size for the paired-samples t-test of the experimental group was 0.48. It means that there was a large effect, with a substantial difference in the students score before and after the treatment. There were nine sub-categories of metacognitive strategies on student's reading comprehension achievement. Such as: Advance Organizer, Self-management, Comprehension Monitoring, Production Monitoring, Self-assessment, Self-evaluation, and Self-reflection. While the high implemented of metacognitive strategies in reading comprehension consisted of two sub-categories: Selective Attention and Organizational Planning. And the highest strategy use was Selective Attention, while the least strategy was Self-reflection.

Keywords: metacognitive strategies, reading comprehension, students' reading comprehension achievement, reading achievement, student

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INTRODUCTION

Reading is a receptive skill which plays a very significant role in students' learning process. According to Floris & Divina (2015), the role of reading for English as a Foreign Language (EFL) students is that it facilitates the improvement of English abilities and knowledge. Many studies have shown that EFL students who read English text more seem to acquire English much better than those who do not (Floris & Divina, 2015; Hunt & Beglar, 2005). Kebudayaan (2012) states that without being exposed much to reading materials in class, EFL students are not probable to make much progress. When these students read English text less, they are not well accustomed to English then they get difficulty in understanding English text once they have it.

Even though students have already exposed to English text quite often, there is still a problem whether they understand the text they are reading or not. Many students are unable to comprehend texts, even though they can decode or find the meaning of the texts fluently (Williams & Atkins, 2009). Ahmadi, Ismail, & Abdullah (2013) assert that many students of EFL/ESL have "major difficulties" with English reading comprehension even after learning the English language for years. They can read a text but they encounter difficulties when they have to understand the information in the text. This is problematic for the students as the main purpose of reading is actually to get information and idea of the text to complete a certain instruction, like what is demanded in a test.

Final examination in Indonesia has given a big portion of its questions to be answered based on texts. Looking back at 2014 final examination, there are around 85% (43 out of 50 items) of the questions for junior high and 70% (35 out of 50 items) for senior high are all based on texts. This clearly needs a good reading ability as the students mostly have to spend the allocated limited time to read texts to be able to answer the questions correctly. Thus, it is important for the students to have good reading strategies so they will not waste their time reading the text again and again without getting the answers demanded from the questions.

Many strategies and techniques have been proposed as solution to enhance the students reading comprehension skill. One of them is metacognitive reading strategy. Metacognitive reading strategy is effective to facilitate students reading comprehension in the field of second/foreign language studies (Ahmadi et al., 2013). Many researches then attempted to create taxonomies of metacognitive reading strategy to facilitate reading comprehension.

Metacognitive strategies are regarded as "high order executive skills that make use of knowledge of cognitive processes and constitute an attempt to regulate one's own learning by means of planning, monitoring, and evaluating" (Hartman, 2001b; L. Zhang & Seepho, 2013). Pang (2008) asserts metacognitive strategies as the "monitoring and regulative mechanism that readers consciously use to enhance comprehension." In reading, metacognitive strategies are self-monitoring and self-regulating activities which focus on both the process and the product of reading (L. Zhang & Seepho, 2013).

Metacognitive process involves cognitive effort which consists of knowledge about and regulation of cognitive processing (Cubukcu, 2008). It affects the success of comprehension. Pang (2008) mentions about metacognitive strategic competence which reflects readers' monitoring and control of reading strategies. (Hartman, 2001a) asserts that students who are aware and in control of their metacognitive reading behaviour can take advantage because they can monitor their comprehension, clarify difficulties and restore the process when it fails.

Ahmadi et al., (2013) conducted a research dealing with metacognitive reading strategy, resulting that metacognitive reading comprehension strategy has a positive effect on learning a second language and learners can gain the skills they need for effective communication in English. Metacognitive strategies were also proven to facilitate reading comprehension and promote both the performance and understanding of one's reading comprehension.

L. J. Zhang (2009) assessed metacognitive awareness and reading strategy used by Chinese senior high school students who learnt English as a foreign language (EFL). The results showed that the students used the strategies at a high-frequency level. It also revealed that the students were also active EFL reading-strategy users and that their pattern of strategy use was closely related to their overall EFL achievement. This finding proves that when the students use strategy in their reading activity, they can achieve English better.

Other research proving that there is a correlation between metacognitive strategy use and English reading achievement was conducted by L. Zhang & Seepho (2013). The results revealed the overall metacognitive strategy use in academic reading comprehension of Chinese EFL (English as a Foreign Language) students with both high and low proficiency. They also emphasized that metacognitive strategies played an important role in English majors' EFL reading and are important and helpful to enhance EFL reading comprehension. Additional suggestion for the teacher was that EFL teachers in the classroom should integrate metacognitive strategy training into reading instruction and teachers can play a key role in making students aware of and fostering the acquisition of metacognitive strategies.

To apply the metacognitive strategies, teacher should give the students systematic instruction about the concept of metacognition and learning strategies. This will help the students comprehend the new strategies better and know how to apply them to different reading tasks. This is in line with what Cubukcu (2008) has investigated. He conducted a study which the students had been taught metacognitive strategies for reading. The results of the study have confirmed that reading comprehension could be developed through systematic instruction in metacognitive language learning strategies. The model of instruction helped the students to know why, when, and how to use the strategies or known as declarative, conditional (conceptual) and procedural knowledge (Veenman in Ahmadi et al., 2013; Hartman, 2001b). Gradually, they start to think metacognitively about the strategies they could use to improve reading comprehension to become not merely readers but also strategic readers.

Researchers argued that metacognitive process should be taught in order to improve metacognitive knowledge, monitoring and control of all readers and also to create active, strategic and proficient comprehends. The process cannot occur automatically without being learnt and practiced. Since readers are expected to comprehend the material they are reading, they need strategies to be applied to better comprehend the text.

Bjork, Metcalfe, & Shimamura (1994) describe it as the knowledge about how someone perceive, remember, think, and act upon what he/she knows. Other scholars define it as knowing about knowing. The first knowing represent the awareness of the second knowing, that is, the understanding of different factors to complete certain task, such as the state of one's knowledge and abilities (Kleitman, Stankov, Allwood, Young, & Mak, 2012). So it can be said that having metacognitive ability, one can be said to have awareness, knowledge and control of what he/she has in mind and can regulate it to achieve certain purposes.

In relation to reading comprehension, Forrest-Pressley & Waller (2013) mention metacognitive aspects of comprehension which involve knowing when one has understood a text he/she has read, knowing what one does not understand, and being able to use this knowledge to monitor comprehension. Accordingly, Zhang & Seepho (2013) asserts that metacognitive strategies in reading are those strategies designed to increase readers' knowledge of awareness and control upon their reading process, to improve their reading comprehension, and to evaluate whether they have succeeded in their attempt to comprehend. Forrest-Pressley & Waller (2013) mention that the ability to monitor comprehension depends on what a reader knows about his/her own comprehension processes. Thus it can be said that metacognition is the trigger for other processes that are necessary for understanding (Maki & McGuire, 2002). Having this ability, students will know what strategies to be best used in certain condition and instruction, when, how and why using those strategies. Students will also have the ability to select the most appropriate reading strategy for different passages and eliminate what are unnecessary. This will save time and students can take the benefit of it for completing another task.

Considering the importance of reading comprehension and metacognitive strategies, this study has been done to investigate the effectiveness of implementing metacognitive strategies to teach reading comprehension in Indonesian context. Since some studies in other countries shown that the use of metacognitive strategies was effective to enhance reading comprehension, this study had been done to investigate whether it also works for Indonesia student. In this study, the indicator whether the implemented of metacognitive strategies to teach reading comprehension was effective or not was seen from the students' scores. Other difference between this study and previous researches lies on the metacognitive reading strategies applied. There are many kinds of metacognitive reading strategies, and one of previous studies used the different ones. The metacognitive reading strategies used in this research were based on the adaptation of O'Malley, Chamot, & Küpper, (1989)'s and Zhang & Seepho (2013)'s. One of the previous studies applied the metacognitive reading strategies on different level of

students; high and low proficiency students. Meanwhile, this study did not focus on that difference. The subjects of this study were in the same level of proficiency, as the teacher confirmed. Other difference was on the reading comprehension test used. This study adapted O'Malley et al., (1989)'s and Zhang & Seepho (2013)'s which had been comprised into five main reading competencies (see Appendix 2) which then were used as the basis to make the reading comprehension test items.

METHOD

Design

This research was quasi-experimental, since the researchers could not randomly assign subjects to experimental treatments, but must use already assembled groups such as classes. There were two groups in quasi-experimental research: experimental and control group. Both groups had both pretest and posttest, but only experimental group which got treatment of metacognitive strategies. The time length from pretest to posttest was only around two months. Students might have intentionally remembered the pattern of the reading comprehension test questions. Students in experimental group who had already got treatment might have studied by themselves by remembering the shortcut of how to find the answer of questions with the same pattern. Meanwhile, the control group had the conventional reading activity.

Subjects

The subjects of this study were students from eleven grade. There were ten classes for eleven grade. The school divided the classes into male and female student classes. Based on the school policy, the researcher conducted the study on female classes. Two classes which were homogenous in their English competence chosen for experimental and control group. Based on the teacher's recommendation, class of XI IPA 5 (Natural Sciences 5 Class) was the experimental group and class of XI IPS 2 (Social Education Science 2 Class) was the control group. Each class consists of 25 students.

Instruments

There were two instruments used in this study: Reading Comprehension Test (RCT) and Metacognitive Strategy Questionnaire (MSQ). First, The RCT was given to measure reading comprehension ability of the subjects. The reading texts were selected from Senior High School final examination year 2013, text books of grade XI, and other sources like internet. There were five passages containing five questions for each passage, so there were 25 multiple choice questions items in total. In order to be said as a good test, the reading comprehension test was composed by considering three criteria of a good test as asserted by Brown & 吳一安(2000) and Kebudayaan (2012), they were practicality, reliability, and validity.

Second, The MSQ was given asking about the metacognitive strategies the students actually used to plan, monitor, and evaluate their reading process. It was composed into three main sections divided into pre-, whilst-, and post-reading activities. Each section contain the details of metacognitive strategies in reading comprehension composed by

Zhang & Seepho (2013) and the description of the real activity which the students need to choose from 1 to 5 based on their real condition. Zhang & Seepho (2013) adapted the metacognitive strategies in reading comprehension process based on O'Malley, & Chamot (1990)'s classification which is widely accepted. However, the original classification has been modified with the following details:

a) There are 6 items from the original version for the Planning Strategy (before reading) which were modified into 4;

b) Self-monitoring strategy in the original classification is replaced by the Monitoring (while reading), Comprehension Monitoring and Production Monitoring with some developments; and,

c) The Evaluating (post reading), Self-assessment, Self-evaluation and Self-reflection are developed, probing the depth of the metacognitive reading process.

Table 1
Description of Metacognitive Strategies in Reading Comprehension Process by Zhang & Seepho (2013)

Metacognitive process & its sub-categories	Metacognitive strategies in the academic reading comprehension process	Number of items in the MSQ
Planning (Pre-reading)	Advance Organizer	Items 1-4
	Organizational Planning	Items 5-8
	Selective Attention	Items 9-10
	Self-Management	Items 11-12
Monitoring (While reading)	Comprehension Monitoring	Items 13-24
	Production Monitoring	Items 25-30
Evaluating (Post-reading)	Self-Assessment	Items 31-34
	Self-Evaluation	Items 35-37
	Self-Reflection	Items 38-40

The MSQ consisted of items to be answered by the students by ticking on the column which suit them the most. The students were informed that the MSQ was not a test and did not affect their reading score, so they were expected to answer based on what they really did related to reading activities. The MSQ data was used to answer the second research question about what metacognitive reading strategies were mostly used by the students in achieving their reading comprehension.

Data Collection Technique

To address the first research question, pre- and post-Reading Comprehension Test (RCT) were given before and after the students taught by using metacognitive reading strategy. The score from pretest was compared with the score from posttest.

To address the second research question, Metacognitive Strategy Questionnaire (MSQ) was given in the seventh meeting. Before MSQ was given, the students were informed about the purpose of the MSQ that the questionnaire would not affect their score. There was no right or wrong answer and it also did not measure the students' ability in English especially in reading skill. The MSQ only investigated what strategies used by the

students. The students were also informed that their response on the MSQ was confidential and thus they would not write their name on the MSQ sheet but their student's number only. The students completed the questionnaire without discussing with others. The questionnaire was written in English and Bahasa Indonesia to make the students easier to understand the questions and thus could answer them easily.

Data Analysis Technique

Paired-sample t-test was chosen to analyze the data from Reading Comprehension Test (RCT) score because this research investigated whether there was any significant difference of students' means score from pretest (before intervention) and posttest (after intervention) of two groups (control and experimental). The control group existed as the comparison of experimental group which got treatment to investigate whether the intervention given for experimental group did have effect or not. The use of control group which was not exposed in intervention (i.e., treatment) but was similar with the participant improved the study (Pallant, 2010). Through paired-samples t-test, it was found that there was significant difference between pre and posttest scores of students who were trained by metacognitive strategies and those who were not. when using paired-samples t-test, the p (probability) value of control group was above the alpha value of 0.05 (0.327). The probability value of the experimental group's mean score from pretest to posttest was below the alpha value of 0.05 (0.000). And from the table of Paired Samples Test, the probability (p) value labeled Sig. (2-tailed) for Pair 1 (pretest-posttest control group) was 0.327, while for Pair 2 (pretest-posttest experimental group) was 0.000.

Metacognitive Strategy Questionnaire (MSQ) was analyzed by using Strategy Inventory for Language Learning (SILL) scale value version 5.1 by (Lin & Zhang, 2011; Oxford, 1990) to indicate the level of usage for the nine sub-categories. The following is the 5 scale value and its description. (Note: the pronoun 'you' and 'me' here refer to the student).

Table 2
Strategy Inventory for Language Learning (SILL) Scale Value Version 5.1

Response	Description	Meaning
1	Never or almost true of me	The statement is very rarely true of you; that is, you do the behavior which is described in the statement only in very rare instances.
2	Generally not true of me	The statement is usually not true of you, that is, you do the behavior which is described in the statement less than half the time, but more than in very rare instances.
3	Somewhat true of me	The statement is true of you about half the time, that is, sometimes you do the behavior that which is described in the statement, and sometimes you don't, and these instances tend to occur with about equal frequency.
4	Generally true of me	The statement is usually true of you, that is, you do the behavior which is described in the statement more than half the time.
5	Always or almost always true of me	The statement is true of you in almost all circumstances; that is, you almost always for the behavior which is described in the statement.

The frequency scales of strategy used based on SILL (Oxford, 1990) and its interpretation are shown in the following table.

Table 3
Frequency Scales of Strategy Use

Mean Score	Frequency	Evaluation
4.5–5.0	High	Always or almost always used
3.5–4.49		Usually used
2.5–3.49	Medium	Sometimes used
1.5–2.49		Generally not used
1.0–1.49	Low	Never or almost never used

FINDINGS

Data from Reading Comprehension Test (RCT)

Table 4
Pretest and Posttest Result for Experimental and Control Group Statistics

		PretestCon	PretestExp	PosttestCon	PosttestExp
N	Valid	25	25	25	25
	Missing	0	0	0	0
Mean		60.9600	61.7600	62.2400	70.2400
Median		60.0000	60.0000	60.0000	72.0000
Std. Deviation		8.34905	9.52750	5.78273	6.64129
Minimum		48.00	44.00	52.00	60.00
Maximum		80.00	84.00	72.00	84.00
Sum		1524.00	1544.00	1556.00	1756.00

Table 4.5 above reports the descriptive statistics of each test (pre- and posttest) for both groups (control and experimental). For the control group, the pretest means score (M) was 60.96 with sd=8.35, while the posttest means score (M) was 62.24 with sd=5.78. For experimental group, the pretest means score (M) was 61.76 with sd=9.53, while the posttest means score (M) was 70.24 with sd=6.64.

Table 5
Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PretestCon - PosttestCon	-1.28	6.40	1.28	-3.92	1.36	-1.00	24	.327
Pair 2	PretestExp - PosttestExp	-8.48	8.97	1.79	-12.18	-4.77	-4.72	24	.000

From the table of Paired Samples Test above (table 4.7), the probability (p) value labeled Sig. (2-tailed) for Pair 1 (pretest-posttest control group) was 0.327, while for Pair 2 (pretest-posttest experimental group) was 0.000. If this probability value was less than 0.05, it could be concluded that there was a significant difference between the two scores. For control group, there was no significant difference between pretest and

posttest since the value was 0.327 (above the alpha value of 0.05). Meanwhile, for the experimental group, the probability value was 0.000. It had actually been rounded down to three decimal places. It means that the actual probability was less than 0.005. This value (0.005) was smaller than the specified alpha value of 0.05. Therefore, it could be concluded that there was a significant difference between pretest and posttest in the experimental group. The table above also showed the df (degrees of freedom) which was computed as total N-1 (similar to Correlation). So, in this analysis, df was 24 (i.e. 25-1).

It was important to ignore the sign negative in the means score of both pairs, because it depends on which mean score subtracted from the other. The value was negative because the posttest mean score was subtracted from the pretest mean score.

The result presented above showed us the difference of mean score between the group which got treatment and the group which did not. To analyze the importance of the intervention (treatment) effect, eta squared was used.

$$\text{Eta squared} = \frac{t^2}{t^2 + (N - 1)}$$

(Pallant, 2010)

The guidelines for interpreting eta squared value are as follow.

Table 6
Eta Squared Value and Its Interpretation

Value	Interpretation
0.01	Small effect
0.06	Moderate effect
0.14	Large effect

Cohen (1998) in Pallant, 2010)

Based on the eta-squared calculation, the effect size for the paired-samples t-test of the experimental group was 0.48. Thus, it can be concluded that there was a large effect, with a substantial difference in the students score before and after the treatment.

Data from Reading Comprehension Test (RCT)

The questionnaire consisted of 40 items with numbers to choose as a scale which described them the most. The averages for metacognitive strategy use based on the SILL scale value by Oxford (1990) were applied to indicate the level of usage for the nine sub-categories of metacognitive reading strategies.

The implemented of metacognitive strategies on students' reading comprehension achievement was demonstrated in terms of the mean scores of the students' self-reporting for nine sub-categories of metacognitive reading strategies. The mean scores and the level of use of the sub-categories are presented in Table 4.9.

Table 7
Metacognitive Reading Strategies Employed by the Students in Reading Comprehension

Metacognitive Strategies and Sub-categories	Mean	Level
Advance Organizer	3.23	H
Organizational Planning	3.50	H
Selective Attention	3.60	M
Self-Management	3.30	M
Comprehension Monitoring	3.25	M
Production Monitoring	3.41	M
Self-Assessment	3.28	M
Self-Evaluation	3.05	M
Self-Reflection	2.88	M
X	3.28	M

Based on the table above, it showed of the mean scores of all nine sub-categories of metacognitive reading strategies used by the students. With regard to the individual strategy items (40 questionnaire items), the mean scores of the individual strategies ranged from 2.88 to a high 3.6 (overall mean = 3.28), indicating a medium overall used of seven sub-categories; Advance Organizer, Self-management, Comprehension Monitoring, Production Monitoring, Self-assessment, Self-evaluation, and Self-reflection, while a high overall use of metacognitive strategies in reading consisted of two sub-categories: Selective Attention and Organizational Planning. The highest strategy use was Selective Attention while the least was Self-reflection. This result answers the second research question of which metacognitive strategy which was mostly used by the students.

DISCUSSION

Correlation Between Metacognitive Strategies Implementation and Reading Comprehension Achievement

Based on the result from pretest to posttest, both groups had increased in their scores. The mean score of control group increased from 60.96 to 62.24 (1.28 point) while experimental group increased from 61.76 to 70.24 (8.48 point). The increased score in control group was considered insignificant since the increased point was quite small (1.28). Meanwhile, the mean score of experimental group increased significantly with the increased point of 8.48 point. This result proved that when metacognitive strategies instructions were applied to reading comprehension activity, the students showed better performance in doing reading comprehension task. This was proven by their scores of posttest which was better than their pretest. This was in line with what Cubukcu (2008) had investigated. Cubukcu conducted a study by teaching metacognitive strategies for reading in a five-week program for his students. The result was that their students who got metacognitive strategy instruction had increased their score in post-test compared to their pre-test score.

The result of this study showed that there was no significant difference of control group's score from pretest to posttest. On the contrary, there was a significant difference

of pretest and posttest score of experimental group. This also showed the significant positive correlation between the implementation of metacognitive strategies and reading comprehension achievement.

Those data showed that the different treatment for control and experimental groups did affect the students' reading comprehension scores. This result supported the previous research done by Zhang & Seepho (2013). They investigated the metacognitive strategies used by English major students in academic reading. The result of the study showed that the students who used more metacognitive strategies tended to score higher on the reading comprehension test than those who did not. In this research, the experimental group had got the treatment of metacognitive strategies and they used the strategies when doing the posttest. They were proven to score higher in the posttest than the control group who was not exposed to any of the metacognitive strategy treatment. It was possible that some students from the control group did use some of metacognitive strategies which had already been attached to their mind, as in fact some metacognitive strategies had been naturally possessed by some students. However, the number of metacognitive strategies possessed by control group was not as many as those possessed by experimental group since the control group did not get the training of metacognitive strategies. Thus, what Zhang & Seepho (2013) had stated that "the students who used more metacognitive strategies tended to score higher on the reading comprehension test, whereas the students who used fewer metacognitive strategies were likely to get low scores" was proven.

The other result of this study was about the effect size of the treatment of metacognitive strategies. It was known that the eta squared value of 0.48 showed that there was a large effect. The students of experimental group were proven to get significantly difference in their score compared to the students of control group. This result was also in line with Zhang & Seepho (2013)'s, that there was a significant positive correlation between metacognitive strategies implementation and English reading achievement. The metacognitive reading strategy training was proven to be successful to help students improve their reading comprehension ability.

There was a significant difference of students who were trained by metacognitive strategies with those and who were not. Metacognitive strategies also gave positive effects on students' reading performance, it was showed by their reading comprehension scores which increased significantly. Metacognitive strategies proven to play important role in students' reading comprehension, and further open possibility of enhancing reading comprehension by improving these strategies. There were nine sub-categories of metacognitive reading strategies used by the students, such as: *Advance Organizer, Self-management, Comprehension Monitoring, Production Monitoring, Self-assessment, Self-evaluation, Self-reflection, Selective Attention and Organizational Planning.* When metacognitive strategy instructions were implemented on reading comprehension activity, the students showed better performance in doing reading comprehension task. The more the students implemented metacognitive strategies, the more the probability they have to improve their reading ability and further their reading score.

Students with metacognitive strategies had definite reading goals in mind and know how to accomplish them (Zhang & Seepho 2013). They could maximize to plan what reading strategies they would use, choose the most appropriate ones effectively, did self-assessment and self-evaluation further to accomplish maximum performance of their reading comprehension. Therefore, students with metacognitive strategies were able to read efficiently and effectively.

Metacognitive Strategies Implementation on Students' Reading Comprehension Achievement

From the MSQ data, it was found that Selective Attention had been used the most by the students. The possible explanation of the high use of this strategy was related to the nature of metacognitive strategies. The three process of metacognitive strategies (planning, monitoring, and evaluating) were not linear process but the recursive ones. The students might use them when they consider it necessary depending on the needs and the demands of the task and the interaction between the task and the learner (Brantmeier, 2005). Selective Attention in this study consisted of two activities; the first was determining the major points which would be paid attention to, such as the headings and sub-headings, the topic sentence, and the text structure. When the students realized that these activities were beneficial in helping them coping their reading problems, they would do these activities more than once to attain the optimal advantage of their reading. The second activity in Selective Attention was recalling weak points in reading comprehension and trying to comprehend when reading began. Once the students know their weaknesses, they could anticipate for not doing that again in the next reading activity. This is in line with what Kleitman et al., (2012) noted that Selective Attention was useful because it helped the students understand the complexities of the incoming reading task before reading, pinpoint the problem, and expand the learning task. Another reason could be that because English is a foreign language for students, they often found unfamiliar language and cultural references, so they paid attention to the visual features of the text to help them enhance the comprehension of the text (L. Zhang & Seepho, 2013). Chamot (2005) stated that choosing to focus on specific aspects of language or situational details will help perform the task.

The second most applied category was Organizational Planning. This category consisted of four activities, they were: coming up with a list of reading strategies which would probably be used, scanning the text first and concentrating on what would be read, reading the task before reading the text, and reading the text before reading the task. The most possible activity the students used the most was reading the task before reading the text because it needs shorter time than the other three activities and it was more appropriate when it was done in a limited time, for example when the students are facing examination or test. They are often faced with long reading texts with minimum allocated time. What in their mind was that they had to accomplish the entire task by answering what was demanded by the text. What they could do was looking only at the questions and then directly seek for the answers from the text. For good readers, it was not really a problem to read the text first before reading the task since they could comprehend the text in a one time reading. Unfortunately, poor readers could not do

that. Most students needed to read the text more than once to be able to grasp the meaning of the text. So, to save the time, they preferred to read the questions first.

In Organizational Planning, there are three activities which spent quite long time, they are: coming up with a list of reading strategies which would probably be used, scanning the text first and concentrate on what would be read, and reading the text before reading the task. These activities were very advantageous to help the students comprehend the text. They could prepare some reading strategies which had been learned before then chose the most appropriate ones based on what was demanded by the task. The students could do these activities when they did not have to rush with the time. However, in certain situation, for example in an exam or a test, they probably choose to avoid doing these activities. Since the students had got the training of metacognitive strategies for reading, they could equip themselves with strategies that supported the success of their reading. This was in line with what The Rohim (2009) stated related to the teachers' duty to equip students with strategies that are linked to reading success.

The last, from the MSQ data, it was found that Self-Reflection and Self-Evaluation were the least applied by the students. It seemed that the students got difficulties in evaluating how well they learned to read and the reading strategy use. They also got difficulties in reflecting their own problems whether they needed to go back through the reading process for a better understanding. Though in the training they had been told how to do those, however, in practice, they did not know what to do and how to evaluate themselves. This is probably because both strategies need the readers' ability to recognize weaknesses in their work, to reflect whether they need to go back through the task, to decide whether they meet the goal, and to evaluate the effectiveness of the strategy use (Anderson, 2002). These activities were not easy for the students. Another possible reason was due to cultural issue in Indonesia. Normally, students just need to submit their work and the teacher will do the evaluation. The students are not accustomed to evaluate themselves. All the evaluation and scoring are done by the teacher and the students got used to the way the teacher evaluate their reading tasks. Consequently, the students do not consider that Self-evaluation is needed.

CONCLUSION

This research focused on reading comprehension achievement which was seen from the students' scores. The results of this study showed that metacognitive strategies had impact on students' reading comprehension achievement. It promoted students' reading performance as well as their ability to maximize their reading effectively. By accustoming using metacognitive strategies in their reading activity, students will become skilled and become good and strategic readers in their process. Strategic readers had the ability to plan, monitor, and evaluate their reading automatically, as represented by three steps of metacognitive strategy activities. By doing so, they got the most from their reading and further achieved the targeted score.

Although this study had proven that metacognitive strategies result positive in students' reading ability and further to their reading achievement, other possible factors which might affect the students' reading performance must also be taken into consideration.

One of some possibilities is that the time length from pretest to posttest was only around two months. Students might have intentionally remembered the pattern of the reading comprehension test questions. Students in experimental group who had already got treatment might have studied by themselves by remembering the shortcut of how to find the answer of questions with the same pattern. This, at glance, was good as they were motivated to study by themselves and could find the 'smart solution' of solving certain questions in limited time. However, this also has negative effect that the students did actually not really comprehend the text. Instead, they used the shortest and easiest way merely to find the answers of the questions.

One thing which also should be noted about this study was that the training of metacognitive strategies in this research only lasted around two months. Whereas, to make the students accustomed to these strategies and to make them able to be skillful in these strategies, longer time was needed. It was quite impossible that by only having exposed to the treatment in quite short time, students were already skillful upon these strategies. Thus, to make them well trained and possess metacognitive strategies till become skilled, they needed to be trained in longer continuous time. If necessary and possible, they needed to be conditioned to always used metacognitive strategies every time they meet reading texts. This was where the role of teachers was important in facilitating the students. Once they were skillful, they would use those strategies automatically.

The result of this study supported the theory that metacognitive strategies had positive impact on students' reading comprehension achievement. Thus, attention on the use of metacognitive strategies on reading comprehension activity should be given more. Teachers and practitioners could start to give their students trainings on metacognitive strategies and made the students aware of and foster their students to acquire metacognitive strategies. On the other hand, students could acknowledge themselves to learnt about metacognitive strategies and further to apply the strategies purposefully. Many factors were involved in any learning activity and sometimes unnoticeably affected the students and the learning activity itself. Students' psychological factors such as perception, motivation, belief, self-confidence, etc. should be taken into consideration when conducting metacognitive strategy training to anticipate any possible challenge and to overcome any possible difficulties to ensure the effective used of the strategies.

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