Journal of Applied Studies in Language, Volume 5 Issue 2 (Dec 2021), p. 309—319
p-issn 2598-4101 e-issn 2615-4706 © Politeknik Negeri Bali
http://ojs2.pnb.ac.id/index.php/JASL

Effect of CALLA metacognitive strategy instruction on reading comprehension and reading awareness

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Abstract - This research aim is to analyze whether metacognitive strategy instruction CALLA affects students' reading comprehension and reading awareness. This research used a quasi-experimental study in forms of pretest, treatment and post-test. Results showed that the group of experimental students had score significantly higher than the control group students on reading comprehension post-test and also showed significantly higher improvement in metacognitive reading strategy awareness and reading comprehension than control group students. The study recommends CALLA metacognitive strategy instruction to be an effective option for teaching reading comprehension skills at the senior high school level and in the contexts, which share similar characteristics.

Keywords: CALLA, MSI, reading comprehension, reading awareness

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1. Introduction

Indonesia needs to be critical 'and solves the problem on their own. This achievement can only be achieved through cultural behavior, both in formal education and in ideas. Most of the best ideas are found in books, a statement that seems self-evident. It is widely acknowledged that the activity of reading results in a deeper and wider awareness of life's possibilities and literature inspires creative minds. The students need to know of the importance of literacy but without a culture of reading; It is a real struggle to write and produce a quality of literature. Based on the survey taken by the International Reading Literacy Study (PIRLS), Indonesia had a low score of awareness in reading literacy. The proficiency levels in Indonesia in the core academic areas of reading, math, and science are not yet satisfactory (Fasih et al, 2018). Based on the study of PISA 2015, it resulted and was found significantly high that 68% of Indonesian 15-year-olds achieved below basic proficiency levels in mathematics. The lower scores than average were also identified in science and reading domains, the findings that are commensurate with results on the TIMSS and PIRLS assessments for 4th and 8th graders. Based on the study (Mullis, Martin, Kennedy, and Foy, 2007), at the other extreme, Moldova, South Africa, Iran, Morocco, and Indonesia had 20 percent or more of their students at the low level of the index and very few at the high level. Except for Moldova, these countries had average achievement below the PIRLS international scale average. It is proven that reading is hard and challenging for the students to learn because reading is a complex subject. It means the data have shown that the Indonesian students had a low reading score because they have a lack of awareness. In reading comprehension, students are often struggling to comprehend the reading comprehension of the text. According to Mckee (2012), reading is a key to success in life. The students reading ability can help the students to understand the language and art but also all subjects. Reading also helps students to make them easier in all work and tasks. Reading is a window to see the world and to get access to all information up to date that we need. The students can improve their critical thinking by reading a lot of books. According to Frankel et al (2016), reading needs a brain to access the information as it is collected, processed, and analyzed. Therefore, there is a need to find a good teaching strategy to teach reading comprehension that is related to the Metacognitive process. According to Ahmadi, Ismail, and Abdullah (2013) metacognitive is a good skill to have critical thinking and have self-aware of the situation, metacognitive bring the students to success in learning. It is important for a learner to understand the metacognitive skill because metacognitive used planning, monitoring, and evaluation to help students to succeed in learning reading comprehension. The teacher could also facilitate the students to develop metacognitive skills in the classroom by designing learning activities for the courses and the curriculum. Many researchers have conducted studies related to metacognitive strategy (Takallao, 2011; Kamis et al, 2017; Hastanto et al, 2020; Kurniawati, 2014), yet they did not mention how effective is metacognitive to students' reading awareness.

Metacognitive skill is, as it is widely believed, developed through intentional questioning, modeling techniques, and reflection. The students need to train their metacognition skills through the practice of self-regulation. Students can develop their own control of awareness, thinking, and learning. Teachers hopefully will be able to improve the students 'awareness and control their own learning by teaching them to reflect on think, learn, and remember and perform in academic tasks before, during, and after a task evaluation. According to Quigley (2018), when students are getting trained to use metacognition strategies, they become confident and become independent learners. it means students who have the ability of metacognition will soon realize when they face the problem and they will always find a solution to solve it by their own experience. Since there are many strategy instructions frameworks that exist. The researchers choose the Cognitive Academic Language Learning Approach (CALLA). CALLA has five basic steps: preparation, presentation, practice, evaluation, and expansion (Chamot & Robbins, 2005). They also state that CALLA purposes can be integrated

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into the curriculum and suits Curriculum 2013. They also claim CALLA is suitable for ESL, EFL, bilingual, foreign language, and general education classrooms. In Indonesia, CALLA is not a widely spread strategy used as there are very limited resources talking about the CALLA model.

This is because of the application of what fits to teach ESL. Since the government used curriculum 2013 the role has changed from teacher to students' center. The CALLA is important to introduce to an English teacher because the curriculum 2013 has demanded the teacher to be creative and innovative to implement the theory in the classroom. In this case including CALLA, the teacher could implement into the curriculum 2013 in the classroom particularly in the teaching and learning process. While there has been research on metacognitive strategy instruction (CALLA) and reading comprehension, there is little research on metacognitive reading awareness. Base on previous research many researchers have proven CALLA's metacognitive strategy is effective to teach reading comprehension and reading awareness. CALLA metacognitive strategy instruction is contributed for students to have high thinking process, independent learner, set students goals, monitor their own strategy in how they think about learning, and evaluate their own comprehension (Flavell, 1979). It is important that to tell the information about CALLA Metacognitive strategy instruction to the English teacher of senior high school to teach reading comprehension and reading awareness.

2. Method

2.1 Research Design

This study used a quasi-experimental design in which the quasi-experimental is a design of research that needs two groups to be tested (Ary et al, 2010). The groups of the research were chosen based on the consideration that they have almost the same ability. Thus, the researchers took two classes that have almost the same ability and are available in the school. In this research, the researchers focus on one form of quasi-experimental studies that is a pre-post-test design with a control group. In this research, there are two classes that are taken as the sample of this study. One class is directed to be the experimental group and the other class becomes the control group. The experimental group gets some treatments about metacognitive strategy instruction (CALLA) and the control group does not get the treatments. The experimental group has to take pre-test, treatments, and post-test. The pre-test explores the students' reading comprehension and reading awareness before they get the treatments. The post-test is executed for the students after they get the treatments first. Therefore, the data for the research is collected from the scores of two pre-tests and the two post-test, and then the data is analyzed and evaluated by using the t-test. There are two variables in this research. The first is the independent variable and the second one is the dependent variable. The use of metacognitive strategy instruction is an independent variable symbolized by "X" and the students' Reading Comprehension and Reading Awareness are dependent variables symbolized by "Y". This research used two groups for comparison. The first is the experimental group that was treated by imagery strategy. The second one is the control group that was treated by conventional strategy or not treated by Metacognitive strategy instruction. In brief, the research is designed by the following table 1.

Table 1 Research Design

Class	Pre-test	Treatment	Post-test
Experimental	O^1	X	O^2
Control	O^1	Ɵ	O^2

Note:
O1 : Pre-test to experiment and control class
O2 : Post-test to experiment and control class
X : Receiving treatment, that is using MSI (CALLA)

Ɵ : No treatment
Y1 : Reading Comprehension
Y2 : Reading Awareness
In order to get the Y score is from post-test – pre-test table 2

No and name of students	Post test	Pre test	Achievement (Y)
Total			Y ∑

Adopted from Ary et al (2010)

2.2 Research Population and Sampling

The population is the entire XI grade of Senior high school students. In this research, the author used cluster random sampling. The cluster random sampling technique is to select the sample based on the group, not the individual. This technique was used by the researchers because the population to be studied was considerably more than 100 students and using the technique of random to obtain the natural data of the students (Creswell, 2012). In short, the researchers shook five small papers, each paper written their classes after that being shaken the researcher took one of small papers randomly to research sample. Finally, the researchers got an experimental class as the sample of this study. Then to select the control class the researchers make sure that the class should have a similar characteristic.

2.3 Data Collection Instrument

The researchers applied the multiple choices test for reading comprehension and questionnaire test for reading awareness. In this research, the researchers used pre-test and post-test for both tests reading comprehension and reading awareness. Both tests are used to make sure that the students will not fill easy to answer the question. According to Neglected, Delinquent (Savoie, 2006) The test should have at least two different versions available for administration at the pre-and the post-test. Administrators should not post-test a student with the same questions they encountered in the pre-test. Doing so can produce invalid data because a student's progress cannot necessarily be attributed to the skills they have developed if they are already familiar with the test questions. It means that in order to create the pre and post should be different forms. The researchers have conducted the test in pre-test and post-test. The students were given to experimental class and control class. Moreover, the researchers selected multiple choices tests. Further, the questions of the test consist of getting the main idea, finding the supporting details, dealing with vocabulary, and making inferences that have 30 items. The questionnaire for reading awareness also has 30 items. This questionnaire consists of aspects; global reading strategy, problem-solving strategy, and support reading strategy. This questionnaire was adopted from Mokhtari and Reichard (2002). A validity test is a way to ascertain whether the data used to measure the variables is valid or not. In order to get the validity and reliability, the researchers did the try-out of the tests and then analyzed them with the Pearson product-moment correlation formula for validity and spearman rho for reliability. According to Creswell (2012) reliability is to measure consistency. It means the score from the test must be stable and consistent even if the test is used on different occasions or when it is used by another person, it will give the same result. The good or bad quality of the data is obtained based on the instrument used to collect the data. The test is valid if the result r-XY is greater than the r-table. the r table for N 30 was 0,2960. The test is reliable if the result spearman rho was greater than Spearman rho-table. Spearman rho-table for N 30 was 0,2960. The data was calculated by SPSS V.25 the analysis of pre-test and post-test items the questionnaire and multiple-choice test were valid and reliable.

2.4 Data Analysis

In order to find out the answer to this research question, the procedures of data analysis are required. Because most of the data are intervals and in the numbers. So, the researchers used

the application SPSS V.25 to help the researchers analyze the data by the formula in SPSS V 25. Statistical Package for the Social Sciences (SPSS) is a software application program for a computer to analyze the data. The kind of formulas that the writer analyzed the data are the Individual score, Mean score, standard deviation, t-test or Wilcoxon, F distribution test. In this research the researchers analyzed the data with procedures as follow: In this research, the researchers collect the data from test and questionnaire. The tests were used to find out the level of the students' reading comprehension skills and whether students who taught through Metacognitive strategy instruction have better reading comprehension skills than those who were not taught through Metacognitive strategy instruction. The researchers use a metacognitive reading awareness inventory to assess the student reading awareness adapted from Mokhtari and Reichard (2002) to score the students' reading awareness. The tests consist of pre-test and post-test. The students' post-test scores from both experimental and control groups were analyzed through the T-test. The T-test is used to test the comparative hypothesis of two samples if the data is in interval or ratio. Afterward, the result of the T-test, t-value, results were compared with the t-table to find out which hypothesis is accepted or rejected.

3. Results and Discussion

3.1 Result of pre-test and post-test on Reading Comprehension

The result of pre-test and post-test reading comprehension were presented on following table 3 below.

Table 3 Descriptive Statistics of Reading Comprehension

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-test Reading Comprehension Experimental Group	31	7.00	73.00	**30.12**	13.79
Pre-test Reading Comprehension Control Group	27	10.00	57.00	**33.74**	14.44
Post-test Reading comprehension Experimental group	31	50.00	83.00	**57.79**	9.54
Post-test Reading Comprehension Control group	27	20.00	63.00	**42.70**	13.66
Valid N (listwise)	27				

Based on table 3, the researchers analyze that the mean score from the experimental group reading comprehension pre-test was 30.12. it means that the reading comprehension achievement from the table has shown that the students from the experimental group have a low score of reading comprehension achievement with a total average of 30.12. We can classify this data as a poor achievement. From table 3, for the control group of reading comprehension of the pre-test was 33.74. it means that the data of reading comprehension achievement from the control group class has a low score of reading comprehension achievement with a total average of 33.74. We can classify this data as a poor achievement. The researchers can describe based on the data in table 3 that both classes either the experimental group or control group have a good reading comprehension achievement. It means that both classes have poor reading comprehension achievement.

The mean score of post-tests on reading comprehension achievement for the experimental group was 57.79. It means that the experimental group students were getting improved from pre-test of 30.12 to 57.79 post-test after they are receiving the CALLA treatment. The data of table 3 has shown that students' mean score of 57.79. It means that the students reading comprehension achievement were in the average level of reading achievement. Then based on table 3 of the control group class of post-test reading comprehension achievement mean score was 42.70. It means that reading comprehension achievement for the control group is still at the level of bad reading comprehension achievement. The result of

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students' control group reading comprehension achievement for pre-test was 33.74 to 42.70 post-test. This data has shown that the control group was also getting improve. Although this data is improved this data is still at the level of poor reading comprehension achievement.

3.2 Result of pre-test and post-test reading awareness

The result of pre-test and post-test reading comprehension were presented on following table 4 below.

Table 4 Descriptive Statistics of Reading Awareness

	N	Minimum	Maximum	Mean	Std. Deviation
Reading awareness Experimental Class Pre-test	31	49.00	77.00	**65.09**	8.42
Reading awareness Control Group Pre-test	27	40.00	80.00	**65.07**	10.53
Reading awareness Experimental Class Post-test	31	56.00	91.00	**70.80**	7.51
Reading awareness Control Class Post-test	27	40.00	80.00	**65.66**	10.23
Valid N (listwise)	27				

Based the table 4, the analysis shows that the mean score from the Experimental group reading awareness pre-test was 65.09. It means the reading awareness achievement has shown that the students from the experimental group have an average score of reading awareness achievement with a total average of 65.09. This data can be classified as an average achievement. Table 4 of the control group class, the reading awareness pre-test results the means score of 65.07. It means that the data has shown that control group students have an average level of reading awareness achievement with a total average of 65.07. this data can be classified as an average achievement. The data in table 4 has shown that both classes, either the experimental group or the control group, have an average level of reading comprehension achievement in the reading awareness of the pre-test.

It means that both classes have an average level of reading awareness achievement. For the reading awareness post-test, the mean score from the experimental group reading awareness was 70.80. It means that reading awareness achievement has shown that the students from the experimental group have a good score of reading awareness achievement with a total average of 70.80. This data can be classified as a good achievement. For the reading awareness of the post-test control group class, the reading awareness means the score was 65.66. It means that the data has shown that the control group students have an average level of reading awareness. The data in table 4 showed that both classes experimental group or control group have an average level of reading awareness achievement in reading awareness post-test. It means that both classes have an average level of reading awareness achievement.

3.3 The Result of T-Test Experimental and Control Group for Reading Comprehension and Reading Awareness

The Result of T-Test Experimental and Control Group for Reading Comprehension table 5.

Table 5 Independent Samples Test of Reading comprehension

	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

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Reading Comprehension	Equal variances assumed	7.566	.008	**7.205**	56	.000	21.29630	2.95562	15.37548	27.21711
	Equal variances not assumed			6.988	42.522	.000	21.29630	3.04753	15.14837	27.44422

The t-test of reading comprehension for experimental group and control group pre-test and post-test, the data was calculated by SPSS V.25 the data calculation of t value was 7.205 with the degree of freedom 56 and with significant level 95 %. The calculation of the t-test was from the comparison between the experimental group post-test mean score and control group post-test mean score to answer the hypothesis in this current study. In this study, hypothesis testing is accepted if the t value is higher than the t table.

The t value for reading comprehension achievement for the experimental group was 7.205. From table 5, the degree of freedom was 50-2=48 and with a significant level of 95%. From the t table sheet, t table was 2.00. It can be concluded that the t value was higher than the t table (7.205 > 2.00). In verifying the hypothesis, the writer compares the t value with the t table. If the t value was higher than the t table (t value > t table) it means rejecting the null hypothesis (Ho) and accepting the alternative hypothesis (Ha). And if the t value was lower than the t table (t value < t table) it means rejecting the alternative hypothesis (Ha) and accepting the null hypothesis (Ho). Based on table 5 the t value was 7.205 degrees of freedom 56 with a significant level of 95 %. The t table for df 58-2 = 56 and 95 % was 2.021. Therefore, the hypothesis testing for reading comprehension was the t value was higher than > t table. The t value was 7.205 and the t table was 2.021. Then the result was the Ha accepted and Ho rejected.

It means there is a significant difference in CALLA toward the students' reading comprehension. This study reveals that there is a significant difference among the students who were taught by using CALLA metacognitive strategy toward reading comprehension and among the students who do not. The students reading comprehension achievement in the experimental group were differed greatly compared to the control group. Therefore, the hypothesis testing for reading comprehension was the t value was higher than > t table.

The t value was 7.205 and the t table was 2.021. Then the result was the Ha accepted and Ho rejected. Therefore, it means there is a significant difference in CALLA toward the student's reading comprehension. To measure the significance of the post-test mean of both groups, the t-test was used. Here, the researchers conducted the independent samples t-test because it was used to examine whether there was a difference between the two groups. The Result of T-Test Experimental and Control Group for Reading Comprehension table 10.

Table 6 Independent Samples Test of Reading Awareness

		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
Reading Awareness	Equal variances assumed	5.261	.026	**2.626**	56	.011	6.13978	2.33836	1.45549	10.82408
	Equal variances not assumed			2.571	47.116	.013	6.13978	2.38819	1.33568	10.94389

The t-test of reading awareness for the experimental group and control group pre-test and post-test, the data were calculated by SPSS V.25 the data calculation of t value was 2.62 with the degree of freedom 56 and with significant level 95 %. The calculation of the t-test was from

the comparison between the experimental group post-test mean score and control group post-test mean score to answer the hypothesis in this current study. In this study, hypothesis testing is accepted if the t value is higher than the t table.

The t value for reading comprehension achievement for the experimental group was 2.626. From table 6, the degree of freedom was 50-2=48 and with a significant level of 95%. From the t table sheet, t table was 2.00. It can be concluded that the t value was higher than the t table (2.62 > 2.00). In verifying the hypothesis, the writer compares the t value with the t table. If the t value was higher than the t table (t value > t table) it means rejecting the null hypothesis (Ho) and accepting the alternative hypothesis (Ha). And if the t value was lower than the t table (t value < t table) it means rejecting the alternative hypothesis (Ha) and accepting the null hypothesis (Ho). Based on table 6 the t value was 2.62 degrees of freedom 56 with a significant level of 95 %. The t table for df 58-2 = 56 and 95 % was 2.02. Therefore, the hypothesis testing for reading awareness was t value was higher than > t table. The t value was 2.62 and the t table was 2.021. Then the result was the Ha accepted and Ho rejected. It means that there is a significant difference in CALLA toward the students' reading awareness. Therefore, the hypothesis testing for reading awareness was t value was higher than > t table. The t value was 2.626 and the t table was 2.02. Then the result was the Ha accepted and Ho rejected. Therefore, it means there is a significant difference in CALLA toward the students' reading awareness.

3.4 The Effect Size

Table 7 The result of effect size of reading comprehension

Group	Mean	SD	D
Experimental Group	57.79	9.54	2.03
Control Group	42.70	13.66	

Based on the result of the test for reading comprehension the effect for the experimental group was 2.03. It means that the CALLA effect was a strong effect on reading comprehension achievement. The strength of the effect size for reading comprehension achievement was strong. It means that the CALLA metacognitive strategy instruction was really effective to teach reading comprehension at the senior high school level. The teachers and readers should follow the instruction and the procedures of CALLA that are already written on this paper and to maximize the effort, the teacher should continuously use this instruction. This CALLA metacognitive strategy instruction was suggested to the students that have a low ability in reading comprehension.

Table 8 The result of effect size of reading awareness

Group	Mean	SD	D
Experimental Group	70.81	7.51	
Control Group	65,67	10,24	0.57

Based on the result from table 8 the computed d value was 0.57. This value of effect size is computed by SPSS V25. For reading awareness. This data has shown that how strong CALLA has affected reading awareness achievement. The computed effect size was 0.57. It means that the effect of CALLA was a medium effect. This CALLA metacognitive strategy instruction was suggested to the students that have a low ability in reading awareness. the strength of the effect size of reading awareness was moderate. The potential cause might be to do with meeting in giving the treatment. The researchers only conducted three meetings of CALLA metacognitive strategy instruction. The difference of the subject is the current study was implemented in SMAN 1 Ledo which basically used English as a foreign language.

The results of the data on reading comprehension and reading awareness of pre-test and post-test have shown that CALLA has a positive effect on reading comprehension and reading

awareness. The data can be seen from the experimental group that was improved after receiving the CALLA metacognitive strategy instruction treatment rather than the control group. Based on the study by Nejad and Masoud (2015), metacognitive has a positive relationship with reading performance. in the study, it is also found that and believed the presence of a significant positive relationship between the use of CALLA and the students' reading comprehension performance could not be neglected. Based on the study by Gürses and Adýgüzel (2012), it was also found that students have positive opinions toward reading strategy and reading instruction use.

Furthermore, after the students receive calla instruction students have a positive opinion about reading comprehension achievement and they have aware concerning their reading skills and strategy use. This study reveals that there is a significant difference among the students who were taught by using CALLA metacognitive strategy toward reading comprehension and reading awareness to the students who do not. The students reading comprehension and reading awareness achievement in the experimental group were differed greatly compared to the control group. From this study, the researchers concluded that the experiment students had better performance in reading comprehension after they received CALLA treatment. After the students take the test of multiple-choice reading comprehension tests pre and post. Experimental students' achievement in reading comprehension was improved.

This finding confirmed by the previous study that CALLA has a positive effect on reading comprehension. Based on the study by Nejad and Masoud (2015), metacognitive has a positive relationship with reading comprehension. This study has shown that CALLA has a positive relationship with reading comprehension performance. As the result of reading awareness, the researchers concluded that the experimental students had better performance in reading awareness after they received CALLA treatment. After the students take the test questionnaire of reading awareness test pre and post, the students have the awareness in recognizing their learning process, thinking about their learning, understanding their strategy, and deciding which strategy that students prefer. Understanding their own though the students could know independent learning.

Based on the study by Pei (2014), the experimental group has differed greatly from the control group. The use of metacognitive could increase the students thinking and improve students' achievement, making them better in performance in reading comprehension. The strength of the effect size for reading comprehension achievement and reading awareness has shown that CALLA is an effective strategy to teach reading comprehension and reading awareness. The result confirms that by the study Lin (2014), MSI is an effective strategy to teach reading comprehension and reading awareness on Korean students wherein Korean learning English is a foreign language and Indonesia also consider English as a second language.

This study revealed that if the students were aware of the importance of reading strategy and if they have a positive attitude toward reading comprehension (English) if they follow the metacognitive framework planning, monitoring, and evaluation the students will have better achievement in reading comprehension and reading awareness. As expected, the use of strategy awareness and awareness strategy is related to the cultural context of Korea. Cognitive and cultural interpretations and this study reveal that Korean students have a positive value to the English language. The students were required to be an expert in applying the reading instruction. Younus and Khan (2017) state that the students will become independent learners when they mastered the reading strategy instruction. As the teacher in a modern era, the teacher should become innovative in all aspects including in finding the new and effective one.

4. Conclusion

Based on the findings of this research, it could be concluded that there was an improvement in the students' reading comprehension and reading awareness after the CALLA metacognitive

strategy instruction treatment. From the statistical analysis, t-test independent sample in students reading comprehension achievement revealed that there is a significant difference among the students who were taught by using CALLA metacognitive strategy and to the students who do not. It means that CALLA MSI affects students reading comprehension. Based on the statistical analysis, the data t-test of the students' reading awareness achievement revealed that there is a significant difference among the students who were taught by using CALLA metacognitive strategy toward reading awareness and among the students who do not. The students reading awareness achievement in the experimental group differed from the control group. It means the CALLA has a positive effect on reading awareness. Therefore, the data of this research has proven that there is a positive effect of CALLA on students' reading comprehension and students' reading awareness. The strength of effect size of students reading comprehension and reading awareness has indicated that the CALLA metacognitive strategy instruction was effective to teach reading comprehension and reading awareness at the senior high school level. The teachers and readers should follow the instruction and the procedures of CALLA that are already written on this paper and to maximize the effort, the teacher should continuously use this instruction.

The teachers are recommended to conduct CALLA Metacognitive strategy instruction in the classroom. However, regarding students' achievement on reading comprehension and reading awareness in the present study, the teacher should consider following the procedures of CALLA. The teachers are suggested to conduct CALLA in teaching reading comprehension and the strategies of reading continuously to get the maximum result of reading comprehension and reading awareness. There are several limitations of the study. The process of the student's improvement is not covered in this research. It would also be meriting the future research to conduct using classroom action research. Also, giving treatment in three meetings in this research bounds the students to understand CALLA instruction as well as comprehension. Hence, the students 'performance in reading awareness is not maximal. Therefore, the researchers prompt future research to provide this technique more than 10 times.

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