

MODIFIED CALLA TO IMPROVE STUDENTS' COGNITIVE READING STRATEGY AND READING COMPREHENSION

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Abstract

Penelitian ini bertujuan untuk menemukan strategi membaca kognitif dan pemahaman membaca siswa setelah di ajarkan melalui *Cognitive Academic Language Learning Approach (CALLA)* yang telah dimodifikasi. Desain penelitian ini adalah *non randomized control group pretest-posttest design*. Dua kelas siswa kelas XI SMAN 8 Bandar Lampung menjadi sampel penelitian ini. Untuk mengumpulkan data, peneliti menggunakan dua jenis instrumen, tes membaca dan kuesioner. Hasil penelitian menunjukkan bahwa dari sepuluh strategi, ada empat strategi yang berbeda secara signifikan antara siswa pada kelas eksperimen dan kontrol. Dalam hal pemahaman membaca, hasil menunjukkan bahwa ada perbedaan yang signifikan dari pemahaman membaca siswa antara pada kelas eksperimen dan kontrol.

This research aimed to discover students' Cognitive reading strategies and reading comprehension after being taught by using modified Cognitive Academic Language Learning Approach (CALLA). The design of this research was non randomized control group pretest-posttest design. Two classes of second grader students of SMAN 8 Bandar Lampung became the sample of this research. To gather the data, the researcher employed two kinds of instruments, reading test and questionnaire. The results showed that out of ten strategies, there are four strategies which differ significantly between students in experimental and control class. In terms of students' reading comprehension, the result showed that there was significant difference of students' reading comprehension between students in experimental and control class.

Keywords: CALLA, Cognitive reading strategies, reading comprehension

INTRODUCTION

Reading is an important language skill to master. Reading is also a receptive skill which becomes an input for English language learner. It provides good model for English writing, provides opportunities to study vocabulary, grammar, and punctuation, and demonstrate the way to construct sentences, paragraphs, and whole texts. It can be said that reading is an inseparable part of any English course.

In fact, learning reading is not easy especially for Indonesian students since English is taught as foreign language in Indonesia. It means that students only learn and use English in classroom not in daily activities. The reading difficulties faced by students in EFL setting come from different sources: poor interpretation of the texts, poor vocabulary, the use of inappropriate reading strategies, and poor grammatical competence (Behroozizad & Bakhtiyarzadeh, 2012:28). Several research results (see e.g. Hamra & Satriyana, 2012; Riswanto, 2014) indicated that the ability of Indonesian students to read English texts was very low.

This condition also faced by the students in SMA N 8 Bandar Lampung. Most of eleventh grader students have poor reading comprehension. It can be seen from their English test score. Only few of them can pass the test. Therefore, this research attempts to solve this problem by experimenting one of approaches to teach strategy that is Cognitive Academic Language Learning Approach (CALLA). Hopefully, after students have known the strategies of reading, their reading comprehension will increase.

Learning strategies are “specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations” (Oxford, 1990:8). In addition, Wenden & Rubin (1987:23) says that learning strategies are strategies which contribute to the development of the language system in which the learner constructs and affect learning directly. In other words, when learners start to learn something, they have ability to respond to particular learning situations so that they can decide the most appropriate way to handle those situations. Learners use strategy in order to learn something successfully.

The strategy which was employed in this research is cognitive reading strategies. Cognitive strategies refer to the steps or operations used in learning or problem-solving, which require direct analysis, transformation, or synthesis of learning materials (O’Malley and Chamot, 1990:229). They operate directly on new information and control it to promote learning (O’Malley and Chamot, 1990:44). They help students to understand and produce the new language by repeating, summarizing, reasoning deductively, predicting, analyzing, using context clues, note taking, and practicing with the specific aspects of the target language such as sentence structure and unknown vocabulary. The advantages of cognitive reading strategies become the consideration why the strategy was chosen. Several previous studies have also revealed that the use of cognitive learning strategies in classroom instruction and learning is fundamental to successful learning (Ozek & Civelek, 2006; Ratna, 2014).

Cognitive strategies are typically found to be the most popular strategies with language learners (Oxford, 1990:43). The importance of cognitive strategies increases with the age of learners in EFL. Learners need to be provided with appropriate ways of instruction to use this strategy as efficiently as possible. These strategies refer to the steps or operations used in learning or problem-solving that require direct analysis, transformation, or synthesis of learning materials. Rubin (1981) cited in Wenden & Rubin, 1987:23) identified 6 main cognitive learning strategies contributing directly to language learning:

- Clarification / Verification
- Guessing / Inductive Inferencing
- Deductive Reasoning
- Practice
- Memorization
- Monitoring

The cognitive reading strategies mentioned above are also in line with those identified by O'Malley & Chamot (1990:119-120) which include resourcing, repetition, grouping, deduction, imagery, getting idea quickly, elaboration, inferencing, note-taking and summarizing. Cognitive reading strategies taught in this research will be based on the cognitive reading strategies classification by O'Malley & Chamot (1990:119-120).

One of the approaches that can be used by teacher to teach learning strategy is CALLA. CALLA was developed in the United States in 1986 by Chamot and O'Malley in order to overcome the academic problems in which secondary

education students who were learning English as L2 were having in their other classes. CALLA has three main components; content topics, academic language development, and explicit instruction in learning strategies for both content and language acquisition (O'Malley & Chamot, 1990:193). According to O'Malley & Chamot (1986:5), CALLA is designed to: (1) meet the academic development needs in English of elementary and secondary students. (2) provide a program of content based that can serve as a bridge between the ESL or bilingual program and mainstream education; and (3) develop a curricular and instructional approach for LEP students based on cognitive model of training. It shows that CALLA can be implemented in Indonesia since students in Indonesia are categorized as Limited English Proficient (LEP) students. But, since English is taught as foreign language in Indonesia, the implementation of this approach is different from the original one. It should be adjusted with the students' condition in Indonesia since ESL and EFL context are different. The adjustment will be on the steps of implementation of CALLA in classroom and the materials which are used by the teacher. In addition, the explicit instruction of CALLA is the consideration of writer to implement this approach in the classroom.

There are several previous studies dealing with CALLA. The result of the studies indicate that strategy instruction based on CALLA has positive effect on reading performance (Cubukcu, 2008; Marimuthu & Muthusamy, 2011). Their studies revealed that CALLA can improve students' reading comprehension. However, it seems that there are no studies that focus on investigating the implementation CALLA in developing students' cognitive reading strategies and reading

comprehension especially in Indonesia. Moreover, since the strategy and skill employed in this research are specific, cognitive reading strategy and reading skill, CALLA which is going to be employed in this research will be modified to fit on those two aspects. It should be useful to know whether or not the application of modified CALLA can help students in developing their cognitive reading strategies and reading comprehension. In addition, knowing students' perception about the implementation of modified CALLA will be worth to be investigated.

RESEARCH METHOD

In this research, quasi experimental design was employed and the researcher chose non randomized control group pretest-posttest design. In quasi experimental, the samples were not chosen randomly (Cresswel, 2009:309). The samples can be taken purposively based on the need of the research. The researcher chose two classes of second grader students of SMA Negeri 8 Bandar lampung as the sample of this research.

There were two research instruments utilized in the research, namely reading test and questionnaire. The reading comprehension test was administered to find out whether there is any significant difference of students' reading comprehension who are taught by modified CALLA explicitly and implicitly. In the other hand, the questionnaire was intended to discover students' cognitive reading strategy. The questionnaire was intended to measure the improvement of students' cognitive reading strategy before and after the treatment.

Before the instruments were used to gather the data, a try out test was done to get validity and reliability of the instruments. The researcher used expert judgment to see whether the instruments were valid or not. In testing the reading test, the result showed that out of 40 items, 5 items were not valid. Due to that reason, the reading test used in pre-test and post-test consisted of 35 items. In testing the questionnaires, both of the questionnaires got a positive judgment from the expert, so it can be said that all of items in the questionnaire were ready to use as the instrument in the research. In addition, in measuring the reliability of the instruments, several statistical computations were done. In measuring reading test reliability, split-half computation was done. It was found that the reliability of this test was 0,954. It means that the instrument is reliable and it is ready to use. In measuring the reliability of the questionnaires, cronbach alpha formula was done. It was found that the coefficient Alpha obtained was 0.828. It means that the questionnaire is reliable and it can be used as instrument to get the data for students' Cognitive reading strategy.

In line with the design of this research, the data in this research will be analyzed quantitatively. There were some different statistical computations to answer each research question. Paired t-test and ANOVA were used to analyze the data. In analyzing the data, Statistical Package for Social Science (SPSS) program version 20 for windows was used. The data obtained from test and questionnaire were compared before and after treatment

RESULTS AND DISCUSSIONS

As stated before, this research was aimed to investigate whether or not the application of modified CALLA can help students in developing their cognitive reading strategies and reading comprehension.

In attempting to see the difference of the usage of the strategies between students who were taught by using modified CALLA explicitly and implicitly, the researcher then did the analysis by using ANOVA. Here is the result of the ANOVA.

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Resourcing2	Between Groups	.267	1	.267	.497	.484
	Within Groups	31.148	58	.537		
	Total	31.415	59			
Repetition2	Between Groups	2.604	1	2.604	4.360	.041
	Within Groups	34.642	58	.597		
	Total	37.246	59			
Grouping2	Between Groups	.535	1	.535	.675	.415
	Within Groups	46.004	58	.793		
	Total	46.539	59			
Deduction2	Between Groups	4.267	1	4.267	7.208	.009
	Within Groups	34.333	58	.592		
	Total	38.600	59			
Imagery2	Between Groups	7.350	1	7.350	6.379	.014
	Within Groups	66.833	58	1.152		
	Total	74.183	59			
Getquick2	Between Groups	8.438	1	8.438	17.619	.000
	Within Groups	27.775	58	.479		
	Total	36.213	59			
Elaboration2	Between Groups	2.400	1	2.400	2.262	.138
	Within Groups	61.533	58	1.061		
	Total	63.933	59			
Inferencing2	Between Groups	1.751	1	1.751	3.131	.082
	Within Groups	32.435	58	.559		
	Total	34.186	59			
Note2	Between Groups	2.817	1	2.817	2.474	.121

	Within Groups	66.033	58	1.139		
	Total	68.850	59			
Summarizin g ²	Between Groups	.150	1	.150	.180	.673
	Within Groups	48.433	58	.835		
	Total	48.583	59			

Based on the table above, it can be seen that out of ten strategies there were four strategies which differ significantly between the two groups after the treatment implemented. They were repetition, deduction, imagery and getting the idea quickly. It can be said like that because of the sig value of those strategies. It showed that sig value of those strategies were less than sig level 0,05 which means that there is significant difference between students' strategy usage between control and experimental group after the treatment in those four strategies. However, it seemed that there is no significant difference in the other six strategies since their sig value are higher than sig level 0,05.

The result showed that the usage of strategies of students who were taught by using explicit modified CALLA was better than students who were taught implicitly. It can be seen that explicit teaching became the crucial thing which differs the result of the students between the two groups. In explicit training, teacher gives students rules to practice and make conscious efforts to learn. According to Oxford (1990:214), explicit instruction could help students develop awareness of the learning strategies used, learn to think of practicing the target language with the new strategies, students' self-evaluation of the strategies used, and students' practice of transferring knowledge to newer tasks. It means that, by teaching student explicitly, students' awareness of strategy will emerge. Then,

after they have the awareness of the strategies, they can practice to use them and later on they can evaluate which strategies that appropriate to several conditions which is faced by them.

In addition, according to Nelson & Manset-Williams (2006:227), “Without explicit procedures, these students may not perceive the control the have over reading outcomes, instead making attributions for failure to stable and uncontrollable traits such as ability”. In other words, without a repertoire of strategies, some readers may feel helpless when presented with a difficult text. They can do nothing to help them overcome the problem which is being faced by them while reading a text.

In analyzing students’ reading comprehension, paired t-test testing was employed. The researcher used gain score to know the improvement of students’ reading comprehension between pre test and post test. The significant level used by the researcher was 0.05. The following table is the summary of hypothesis testing through t-test.

Paired T-test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper
Paired Experiment - Control	.15519	.30705	.05606	.04054	.26984	2.768	29	.010

Based on the table above, the sig. (p) value earned through SPSS was 0.010. Meanwhile, the significant level used in this research was 0.05. The hypothesis acceptance criteria was if sig. (p) value is less than sig. level, it means that Ho is rejected. From the table above, it is seen that sig. (p) value (0.010) was less than sig. level (0.05). Hence, in other words, it could be said that there was significant difference of students' reading comprehension who are taught by modified CALLA explicitly and modified CALLA implicitly.

By looking at the result of students' reading comprehension, It seemed that the modification of CALLA was successful since the researcher found that the usage of the strategy by the students was improved and also their reading comprehension. In addition, the explicit teaching which was done by the researcher in experimental group made the real difference to control group which was taught implicitly. Beside the usage of the strategies was improved, the result also showed that the reading comprehension of the experimental group was better. It can be said that explicit teaching also good not only for the usage of the strategies but also for the reading comprehension of the students. It is in line with Boulware-Gooden et al. (2007:76) research which stated, after participating in a five-week study, third graders receiving explicit strategy instruction improved their comprehension by 20% more than those in the control group.

CONCLUSIONS

Relying on the result of data analysis and the discussions of this research, the researcher draws the following conclusions.

1. In terms of the usage of Cognitive reading strategies, there are four strategies which differ significantly between the class which was taught by modified CALLA explicitly and the class which was taught implicitly. The four strategies are repetition, deduction, imagery and getting idea quickly strategies. It shows that explicit teaching help students develop their awareness especially on those four strategies.
2. In relation to students' reading comprehension, it shows that there was a significant different of students' reading comprehension between experimental and control class. By looking at the result, students' reading comprehension in experimental class is better than students in control class. It means that the explicit teaching of CALLA can promote students reading comprehension. It can be happened like that since explicit teaching can help students to develop their awareness of strategies. When they aware of the strategies, they can use the strategies to overcome their problem when they were do reading task.

SUGGESTIONS

In line with the result and conclusions of the research, the researcher would like to propose some suggestions both for teachers and further researcher:

a. For the Teachers

1. The approach used in this research was really effective to teach students about learning strategies. It can be used as an alternative approach for teacher to teach learning strategies, especially cognitive reading strategies. It provides

clear directions and steps to teach students about the cognitive reading strategies.

b. For the Further Research

By looking at the limitation of the research, several suggestions for further research identified. First, since in this research the CALLA was modified to be appropriate to teach cognitive strategy in reading. It seems that it would be interesting for the future researchers to implement this approach to different strategies or skills. Second, it is better for the further research to be conducted in a school which has students with good ability of English in order to get the best result of the research. In addition, it is also suggested for the next researcher to implement CALLA in long term research to see the different effect of CALLA to students' strategies.

REFERENCES

- Behroozizad, S., & Bakhtiyarzadeh, H. 2012. Pragmatic meaning and EFL learners' text-understanding ability. *English Language and Literature Studies*, 2(1), 28-34.
- Boulware-Gooden, R. Carreler, S., Thornhill, A., & Joshi, R. M. 2007. Instruction of metacognitive strategies enhances reading comprehension and vocabulary achievement in third graders. *The Reading Teacher*, 61, 70-77.
- Creswell, J. W. 2009. *Research Design; Qualitative, Quantitative, and Mixed Method Approaches*. United States of America: Sage Publication.
- Cubukcu, F. 2008. How to Enhance Reading Comprehension Through Metacognitive Strategies. *The Journal of International Research* Vol.1/2 Winter.
- Grellet, F. 1981. *Developing Reading Skill: a practical guide to reading comprehension exercises*. New York: Cambridge University Press.

- Hamra, A., & Syatriana, E. 2012. A Model of Reading Teaching for University EFL Students : Need Analysis and Model Design. *English Language Teaching Vol.5 No.10*.
- Marimuthu,R & Muthusamy,C. 2011. Metacognitive Strategy Training through The Cognitive Academic Language Learning Approach (CALLA) as a Way to Improve Reading Comprehension Performance among Students of an English Language Course at UiTM Penang. *Malaysian Journal of ELT Research*. Vol.7 (1).
- Nelson, J. M., & Manset-Williamson, G. 2006. The impact of explicit, self-regulatory reading comprehension strategy instruction on the reading-specific self-efficacy, attributions, and affect of students with reading disabilities. *Learning Disability Quarterly*, 29(3), 213-230.
- O'Malley, J. M., & Chamot, A. U. 1986. The Cognitive Academic Language learning Approach: An ESL Content-Based Curriculum . *Office of Bilingual Education and Minority Languages Affairs (ED)*, Washington, DC.
- O'Malley, J. M., & Chamot, A. U. 1990. *Learning strategies in second language acquisition*. Cambridge: Cambridge University Press.
- Oxford, R. 1990. *Language Learning Strategies: What Every Teacher Should Know*. Rowley, Mass: Newbury House.
- Riswanto., Risnawati., & Lismayanti, D. 2014. The Effect of Using KWL (Know, Want, Learned) Strategy on EFL Students' Reading Comprehension Achievement. *International Journal of Humanities and Social Science*. Vol.4, No.7(1).
- Wenden,A & J.Rubin.1987. *Learner Strategies in Language Learning*. Englewood Cliffs, NJ: Prentice Hall.