

**THE COMPARATIVE STUDY OF USING NUMBER HEAD TOGETHER (NHT)
AND COOPERATIVE INTEGRATED READING AND COMPOSITION
(CIRC) TOWARD STUDENTS' READING ABILITY**

Pramudita Dewi Cahya
pramuditadewicahya@gmail.com
Lilis Sholihah
lilisvivo148@gmail.com

**Universitas Muhammadiyah Metro
Jl Ki Hajar Dewantara No 116 Iringmulyo Kota Metro Lampung**

Abstract

Reading is one of the four language skills that has important role for the students. Every students must have good achievement in reading. That is the reason why the reading ability should be built as early as possible. The research was proposed to know the distinction between students reading ability instructed by NHT and CIRC at the ninth grade of SMPN 1 Melinting to know which one more effective between NHT and CIRC. This design is quantitative research and the researcher give pre-test and post-test to the students. The researcher used cluster random sampling with the population of the students about 117 students. From the four classes in ninth grade, the researcher took two classes as the samples. The samples are 9.1 as Experimental class and 9.2 as the control class. Based on the result of research, there is distinction between NHT and CIRC. And the last result show that NHT is more effective than CIRC toward reading ability in report Text in SMP N 1 Melinting.

Keywords: NHT, CIRC and Reading Ability

INTRODUCTION

Reading is one of the four language skills that has important role for the students. And all of skills have get relation each other especially in reading. Every students must have good achievement in reading. That is the reason why the reading ability should be built as early as possible. In the fact that the students got difficulties to read the text and comprehend the text. This happen because of some reasons. One of the reasons is that they lack of vocabulary, unmotivated to read, and difficult to find the strategy in reading text. Moreover, there are many kinds of techniques that can be used in teaching reading, for example jigsaw, make a match, NHT, and CIRC and so on. NHT is a type of cooperative learning which consists of

four stages that are used to review the fact and basic information that serves to regulate students' interactions.

Considering the information above, the researcher are interested to conduct a research based on the data survey of the research above. The researcher found out how far the result comparison by using Number Head Together and Cooperative Integrated Reading and Composition techniques toward students reading ability in report text. Hopefully, this technique would be beneficial for improving teaching learning English.

The research was proposed to know the distinction between NHT and CIRC, which one is more effective to apply for the students to improve reading ability. After conducting this study the researcher hopes that many advantages in all of component. Firstly, the teacher can apply the technique for learning process. Secondly, the students are not bored to study and find easiness to understand the learning process. Thirdly, the other researcher are able to implement the technique and find out the the result of research.

Reading is complex cognitive process of decoding symbols in order to construct or derive meaning. Reading is a means of language acquisition, of communication, and of sharing information and ideas. Reading is typically and individual activity. Rates of reading include reading for memorization (fewer than 100 words per minutes), reading for learning (100-200 wpm), reading for comprehension (200-400 wpm). Underwood & Batt (1996, p.10) states that reading comprehension is the process to acquire linguistic information through a text. The ability is different from comprehension, that is the ability to understand something or actual understanding of something. Solaeman (2007, p.112) states that the ability is the characteristic to carry out to learning by someone to finish their assignment from mental, or physic.

Cooperative learning method is one of the learning that can be applied in the class where the learning process focuses on the students' work together. This is also supported by the theory of cooperative learning by Johnson et al. (2000, p.2), Kagan, L., Kagan, M., Kagan., S. (1997). Johnson states that cooperative learning is one of the most remarkable and fertile areas of theory, research, and practice in education. Stotie (2000, p,74) explains "cooperative learning exists when the students work together to accomplish shared learning goals." Numbered Head Together (NHT) is a sample four step structures, in main strength are in building mastery and in reviewing previously learned information. CIRC was developed by Steven and Slavin (1995) program represents a bold attempt to apply to the principle of cooperative learning and other recent research in the areas of reading, writing, spelling, and

English language mechanics. In CIRC all of these skills are integrated, in a fashion, so that instruction in each reinforces the others. The researcher determine the objectives of this research as follows:

- 1) To know the significant differences of using NHT and CIRC Techniques toward reading ability in report text at the students of SMPN 1 Melinting academic year of 2015/2016.
- 2) To find out which one is more effective in learning of using NHT Technique and CIRC technique toward reading ability in report text at the students of SMPN 1 Melinting academic year 2015/2016.

RESEARCH METHOD

This research is included into experimental research. Experimental research is the research that investigate the particular treatment toward the subject of research which recognize about the relationship of cause-effect. In experimental research, the researcher inspect at least one variabel which monitor appropriate variable, and perceive the stimulus toward one or more dependent variable. In this research, the researcher will obtain quasi experimental design. The researcher will compare two learning teaching technique. The researcher will utilise two classes, namely experimental class and control class. The researcher will investigate the reading to the experimental class by NHT, while the control class will teach by CIRC. In this research, the researcher will concern the research design which is Pretest-Posttest Control Group Design.

Table 1. Pretest-Posttest Control Group Design

Group	Pre-Test	Treatment	Post-Test
Experimental	O ₁	X ₁	O ₂
Control	O ₃	X ₂	O ₄

(Sources from Ary, 2006: 112)

In this research, the independent variables are NHT (X₁) and CIRC (X₂). Independent variable is sstudents' reading ability.

The population of this research has been conducted at the ninth grade students of SMPN 1 Melinting. The total population of the research is about 117 students which is

divided into four classes. From the four classes, the researcher chose two classes for experimental and control group. To get the sample from population, the researcher uses cluster random sampling technique. Cluster random sampling means that the researcher must choose randomly from four class. Cluster random where different groups within a population are used as a sample. This is different from stratified sampling in that you will use the entire group, or cluster, as a sample rather than a randomly selected member of all groups. The researcher will uses multiple choice test with the number of the test is 30 items. Next, the researcher uses construct validity to determine the validity of the test. Then, spearman brown formula is used to count the reliability of the test. After that, the researcher uses the normality, homogeneity test and hypothesis test to analyze the data.

RESULT AND DISCUSSION

The result of the research can be taken from the tryout and test. Try out was done to determine the validity and reliability of the instrument test. If the result of tryout was valid and reliable, the test can be used as the instrument of this research. The research did on February until April 2016. After the researcher gained the data from tryout, the researcher did the research to provide treatment in experimental class by concerning Numbered Head Together and control class was given treatment by applying Cooperative Integrated Reading and Composition (CIRC). In this research, the researcher used test as the instruments of this research. The measurement of the reading test items, the researcher used construct validity through tryout test. The tryout test resulted 20 items were valid. The result of tryout can be seen that from 30 items test, 10 items were invalid or dropped because they cause wrong answer.

The Result of Pre-test

In experimental class, the highest score was 63 and the lowest score was 21 which had a mean 36, 6 and standard derivation 25, 06. While in control class, the highest score was 67 and the lowest score was 24 which had a mean 42, 3 and standard derivation was 13, 8. From the data, it was known that most of them did not master reading well.

1. The Implementation Of Treatment

The researcher conducted three meetings for treatments between Experimental and Control class. This research focused on the applying of Numbered Head Together (NHT) and Cooperative Integrated Reading and Composition (CIRC).

In Experimental class, the first treatment was done on March 10th 2016. The material was about Report Text. The students were energized to follow the explanation, because the material completed with description and the students are asked to answer the lecturer's questions about report text. The students got imagination while thinking the answer and they feel enjoyable to play NHT technique. They work in a group consisted of 4 to 5 students. Many students got high score in doing exercise. Then the second treatment was done on March 18th 2016. The students still got the same material, the researcher reminded the students to remember what has been studied before. The students still got difficulties to remember the material so the researcher helped them. The students got the good score. The students in Experimental class were very awesome, they are very active. So the research in that class runs smoothly. The students were very good and enjoy the learning.

While in control class, the first treatment was given on March 15th 2016. The material was also about narrative text. The students were also interested in learning cooperative integrated reading and composition. The second treatment was conducted on March 20th 2016. They were enthusiastic while answer the questions about narrative text. The condition of the class was calm because they worked it seriously. They were very busy with their works.

The Result of Post-Test

The post test was given by the researcher after giving the treatment in two meetings or in the last meetings. The post test was given in experimental and control class in order to know the students' reading ability after offering the treatment. The type of post test was similar to pre- test. But the test was different with pre-test. Post-test contained 30 items. From the result of the test, it had known that highest score in experimental class was 67 while the lowest score was 23. From the result of the test, it was known that the highest score in control class was 65 while the lowest score was 25.

a. The Result of Normality Test

The normality data of the test accepted $H_0 x_{hit}^2 \leq x_{daf}^2$ for the significance level 5% ($\alpha=0,05$) and 1% ($\alpha=0,01$)

Table 12. the normality of pre-test

Test	Variable(x)	x_{hit}^2	X_{hit}^2		Conclusion
			Significance level		
			5%(a=0,05)	1%(a=0,01)	
Pre-test	NHT	2,81	7,81	11,34	Normal
	CIRC	5,26	7,81	11,34	Normal

Source: The Result Of Normality Test In Pre-Test Both Experimental And Control Class.

According to the table above, it was gotten x_{hit}^2 of the pre-test in experimental class and control class were lower than x_{daf}^2 in the significance level of 5%(a=0,05) and also 1%(a=0,01). In fact, the hypothesis H_0 was accepted. It means that samples of the research came from the normal distribution of population. The explanation of the calculation of normality pre-test in experimental and control class clearly, it can be checked it on appendix.

Table 12. The normality of post-test

Test	Variable(x)	x_{hit}^2	X_{hit}^2		conclusion
			Significance level		
			5%(a=0,05)	1%(a=0,01)	
Pre-test	NHT	4,05	7,81	11,34	Normal
	CIRC	7,00	7,81	11,34	Normal

Source: The Result Of Normality Test In Pre-Test Both Experimental And Control Class.

Based on the table above, it was gotten x_{hit}^2 of the pre-test in experimental class and control class were lower than x_{daf}^2 in the significance level of 5%(a=0,05) and also 1%(a=0,01). In fact, the hypothesis H_0 was accepted. It means that samples of the research came from the normal distribution of population.

b. The Result of Homogeneity Test

The population of the data was proven which to be normal distribution, so the researcher also conducted the test of homogeneity variance from both samples to prove whether to both sample had the equal variance or not. The homogeneity data of the test accepted $H_0 F_{hit} \leq F_{daf}$ for the significance 5%(a=0,05) and also 1%(a=0,01).

Table 13. The Homogeneity Variance Pre-Test and Post-Test

Test	F_{hit}	F_{hit}		Conclusion
		Significance level		
		5% (a=0,05)	1% (a=0,01)	
Pre-test	1,68	1,86	2,42	Homogenous
Post-Test	1,28	1,86	2,42	Homogenous

Source: the result of homogeneity test of pre test and post test in experimental class and control class.

On the table above, it was obtained that $F_{hit} \leq F_{daf}$ in significance level 5% (a=0,05) and also 1% (a=0,01). So that, H_0 was accepted. It can be said that two samples which had the equal of variance or homogeny.

c. The Result Of Hypothesis Test

The hypothesis testing was used to inspect the hypothesis proposed by the researcher whether is accepted or not. In order to prove the result, the researcher used t-test formula. T-test was used to examine the similarities of two means and the differences of two means. In the research, the researcher compared two test that applied in different class.

a. The Similarities Of Two Means

$H_0 : \mu_1 = \mu_2$ (there is not a few distinction of students' reading ability taught by using Numbered Head together and Cooperative Integrated Reading and Composition)

$H_1 : \mu_1 \neq \mu_2$ (there is a few distinction of students' reading ability taught by using Numbered Head together and Cooperative Integrated Reading and Composition).

Table 14. The Hypothesis Test: The Similarities of Two Means

Variable	Means	S ²	S	t_{hit}	t_{daf}	
					a=5%	a=1%
Experimental	36,6	628,0325	25,06	0,54	2,00	2,66
Control	42,3	190,5555	13,80			

Source: the result hypothesis of pre-test in experimental and control class.

Based on the table above, the result was gotten that the result finds $t_{hit} = -0,54$ either on significance level 5% and 1% is gotten $-t_{daf} < t_{hit} < t_{daf}$. H_o was accepted and H_1 was rejected. It means that there were not a few distinctions before using Numbered Head Together and Cooperative Integrated Reading and Composition in pre test score.

b. The Difference Of Two Means

$H_o : \mu_1 \leq \mu_2$ (Numbered Head Together) is nor effectual that Cooperative integrated reading and composition). $H_1 : \mu_1 \neq \mu_2$ (Numbered Head together is more effectual than Cooperative Integrated Reading and Composition)

Table 14. The Hypothesis Test: The Differences Of Two Means

Variable	Means	S ²	S	t_{hit}	t_{daf}	
					a=5%	a=1%
Experimental	48,8	199,0555	14,10	2,15	2,00	2,66
Control	49,9	154,9292	12,44			

Source: the result hypothesis of pre-test in experimental and control class.

Based on the accounting above, the result show that $t_{hit} = 2,15$, moreover the researcher looks $t_{daf} for(\alpha = 5\%) = 2,00$. It means that $t_{hit} > t_{daf}$. So, H_o is rejected and H_1 is accepted. Furthermore, it can be known that the students reading ability have been taught by using numbered head together is more effective that cooperative integrated reading and composition.

Discussion

The purpose of study was to distinguish the differences between result of using numbered head together (NHT) and cooperative integrated reading and composition (CIRC) toward students reading ability in report text. To illuminate the purpose of this study, the researcher used a test (which was used in pre-test and post test) as the research instrument.

Based on the result of calculation, the value of pre-test and post test in each class (experimental and control class) had showed in distributions list which was the normal of distribution. After that the researcher examined the hypothesis, the result had confirmed that

received H_a . In this case, $t_{hit} = 2,15$ higher than $t_{daf} = 2,00(\alpha = 5\%)$ and $2,66(\alpha = 1\%)$ that null of hypothesis (H_o) was rejected and the alternative of hypothesis (H_a) was accepted. This showed that there was any distinction the result between pre-test and post-test score in experimental and control class, in more point, the changing of students post test was higher than their pre-test result especially in experimental class which was used by Numbered Head Together. It can be explained that Numbered Head Together (NHT) was more effective than Cooperative Integrated Reading and Composition (CIRC) to increase the students' reading ability in recount text.

So Numbered Head Together (NHT) is more effective than CIRC, it can be seen according to Stotie (2000, p.74) NHT is a sample four step structures with the main strength are in building mastery and in reviewing previously learned it. So for the statement about that Numbered Head Together is a cooperative learning strategy in which students work together. NHT is very suitable for teaching reading. According to Dalman (2013: p:5), reading is an activity or cognitive process to find out some information on the text. It means that reading is thinking process to comprehend the main idea of the text.

CONCLUSION

NHT and CIRC is two methods that can be applied in teaching reading. This research is only focus on knowing the effectiveness which one of the method that can be more effective in improving reading ability in report text especially in SMPN 1 Melinting. The treatment has been done in two classes namely experimental and control class. After conducting the research and calculating the data, the reseracher can take the conclusion that Numbered Head Together (NHT) is more effective than Cooperative Integrated Reading and Composition (CIRC) to increase the students' reading ability in report text.

SUGGESTION

Based on explanation and description above, the researcher proposes more suggestion as follows:

Firstly, In order to be able to encourage the students' reading ability in report text, the researcher suggest to the students to use the Numbered Head Together (NHT) in learning activity so the students who are not creative and imaginative during reading class will be encouraged to read text by following the technique numbered head together in report text. So, all of the students are able to read in report text well. Secondly, it is suggested to lecturer or teacher to find the various techniques which can stimulate the students to be more creative and imaginative during reading activity. It can encourage their thinking creativity in order to get a lot of idea, much vocabulary, and train their ability to reading a good report text fluently. Last but not the least, it is suggested for the next researcher to use this research as research reference if they want to take the same research using Numbered Head Together and cooperative integrated reading and composition. Hopefully this research can help the next researcher to find the reference about the Technique of Numbered Head Together (NHT) and Cooperative Integrated Reading and Composition (CIRC).

Bio-Profile

Pramudita Dewi Cahya was born on 18 September 1994 in Sumberhadi East Lampung. She took English education study program in Muhammadiyah University of Metro in 2012 and graduated her study in 2016. Now, she lives in Sumberhadi Melinting East Lampung and become an English teacher in SMPN 1 Melinting. pramuditadewicahya@gmail.com

Bio-Profile

Lilis Sholihah, M.Pd has been a lecturer in English Education Study Program of Muhammadiyah University of Metro since 2012. She graduated from Sultan Ageng Tirtayasa University in 2008 and continued her study to post graduate program of English language teaching of State University of Malang and graduated in 2011. Her corresponding email: lilisvivo148@gmail.com

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