A COMPARATIVE STUDY OF THE STUDENTS' READING ACHIEVEMENT BETWEEN USING PQ4R AND CIRC STRATEGY AT GRADE XI OF SMK AL MA'SHUM SIDODADI IN ACADEMIC YEAR OF 2019/2020

[1]Sri Rahayu, [2]Hamidah Sidabalok
[1.2] Jurusan Bahasa Inggris Fakultas Keguruan dan Ilmu Pendidikan, Universitas Asahan
Jl. Jenderal Ahmad Yani Kisaran Sumatera Utara

ABSTRACT

The objectives of this research is aimed at finding the differences between PQ4R (Preview, Question, Read, Reflect, Recite, Review) and CIRC (Cooperative Integrated Reading and Composition) strategy in students' reading achievement at grade XI of SMK Al Ma'shum Sidodadi in Academic Year of 2019/2020. This research had conducted in experiment design. There are two group, namely experimental group 1 and experimental group 2. Experimental group 1 had been taught by using PQ4R strategy, and experimental group 2 had been taught by using CIRC strategy. The population of this research was taken from the grade XI of SMK Al Ma'shum Sidodadi, and the sample were XI-TKJ1 and XI-TKJ2. The data has been collected from the pre-test and post-test value that worked by the students in experimental group 1 and experimental group 2. The data were analyzed by using t-test. The findings indicate that tvalue was lower than ttable (0,92 < 2,021). The result of this research that Ho is accepted which mention that students' reading achievement by using CIRC strategy is not higher score than using PQ4R strategy at grade XI of SMK Al Ma'shum Sidodadi in Academic Year of 2019/2020. This research shows that every strategy has different result. It is suggested to the teacher to use these strategy in teaching and learning process, so the students become more enjoyable in studying.

Keywords: PQ4R,CIRC (Cooperative Integrated Reading and Composition), Reading Achievement

I. INTRODUCTION

Reading is the process of putting the reader and communication with ideas. The reader interacts with the text, his prior knowledge combines with the print and the visual (written) information results in his comprehension the message. However in reality, the students' ability to read is still low. This can be proven by the fact that students score in reading English shows that only 50% students passed the examination. Besides, when this research observed the process of teaching reading the students' were still difficult in understanding main idea.

There were many factors that can cause the low level of students' reading achievement. They came from internal and external factors. Internally, students were not able to understand texts when the encounter words that have actually been taught or told to them, not to mention if they find new words. Externally, the reading teaching and learning process was sometimes boring, students were not motivated to do it and sometimes keep silent listening to what the teacher was reading,

including reading strategy.

Each strategy has its own way to apply in the classroom. The teacher at SMK Al Ma'shum used the common strategy. The teacher taught the material and asked the students to read a paragraph or a text and answer some questions. So, the learning process was not interested. So that the student felt uninteresting. Therefore, this research plans to apply the approriate strategy which compared two cooperative learning strategies.

There were two types in cooperative learning that can support reading comprehension with a group work or team work was PQ4R (Preview, Questions, Read, Reflect, Recite and Review) and CIRC (Cooperative, Integrated, Reading and Composition) strategy. Both strategies were the best strategy in reading achievement. The PQ4R strategy was used mainly to help students with difficulty in reading and it has aim at making reading easier. It was retaining and recalling information and can help students with improved understanding to recall of facts. While CIRC strategy was a school based program thats target reading. It was built around a cooperative learning strategy that actively engages students in rigorous disscussion of their reading. Reading strategies were directly taught and reinforced through team interaction. From the explanation above, it was clear that PQ4R and CIRC strategy can increase the students' reading achievement on reading on personal recount text and make them enjoy in the classroom. This research wanted to developed the students' reading achievement to be better. Hopefully, the research's expectation is active, the students' reading achievement is comprehended.

II. RESEARCH DESIGN

The Research Design

The recent study was an experimental research to find out the result of a certain technique. According to Hadi (1988: 56) that is "an experimental design is one of the precise methods to examine the cause and effect because of the fact, instruction toward a group and experimental sample". The instructional activity is designed only to teach reading skill students by using Think aloud strategy as a techniques toward the experimental group, the group of sample was had test to measure the effect that students get after treatment. The result of the test was analyzed and compare using statistical computation.

This study tried to describe the effect of treatment of two distinctions, PQ4R and CIRC, this research was designed pre-test and post-test. Therefore, the design is called a pre-test and post-test control group design. The study design was adopted from Ary, et.al (2002: 308). The table research is described as follows:

Table 1 : Randomized group, pre-test and post-test

Group	Pretest	Treatment	Postest
Experimental with PQ4R	T_1	Taught	T_2
Experimental 2 with CIRC	T_1	Taught	T_2

Where:

X = Treatment on the experiment group

T_1 = Pretest T_2 = Postest

This research presented several characteristics; (1) it had two groups of experimental subjects or treatment group and control group; (2) the two groups compared with respect two measurements of observation on the dependent variable; (3) both groups was measured twice, the first measurement served as the pre-test and the second as the post-test; (4) measurement on the dependent variable for both groups was done at the same time with the same test; and (5) the experimental group manipulated with particular treatment.

The Location and Time of the Research

In doing a research, the area where the data took must be restricted. It was aimed to make research easy to be done and it did not need much time and finance. It was conducted at the eleventh year students of SMK Al Ma'shum Sidodadi Kisaran, in Academic Year of 2019/2020.

The Population

In doing a research, the data was taken must be restricted. It aimed to make research easy to be done and it did not need much time and finance. The population of this research was the grade XI of SMK Al Ma'shum Sidodadi in academic year of 2019/2020. There were two classes which consist of 66 students.

The Sample

In taking the sample in this research used random sampling. According Arikunto (2006:87) states that "random sampling is take only a few of the students which is used as a sample". The way to take the sample was this research made four roll which was contained the name of the class. After that, this research took two roll as a sample. In this research was taken grade XI-TKJ1 as an experimental group 1 and grade XI-TKJ2 as an experimental group 2 which was consisted of 33 students.

The Research Variable

Every research requires variable since it roles is the fundamental elements to support the study. The existences of variable determine the outcome of the research itself. In quantitative research, where variable is central and knowing the right variable ought to be based on its appropriate definition. As variable refers to Suharsimi Arikunto (2006:118), it simply means the object in which the research is focused. This research consist of 3 variables. They were:

The Independent Variable (X)

Sugiyono (2009:16) said that independent variable could be called *stimulus, predictor,* or *antecedent.* Independent variable is variable which has the influence or the cause of change or make the existence of dependent variable. So, the independent variable in this research is the use of PQ4R as one of cooperative learning model and CIRC as another cooperative learning model in teaching and learning process.

Dependent Variable (Y)

The object of this research is Students' Reading Achievement on recount text. Reading analyzed based on three levels of Reading

Comprehension such as Literal Comprehension (Main idea, Cause and effects, and Sequences), Interpretive Comprehension (Referents of pronoun/adverb, Omitted words/vocabulary, Writer's intention and Conclusion), and Critical Comprehension (Opinion, Persuasive statement, Accuracy). Recount text analyzed based on retell of experiences in the past, generic structure of recount text (orientation, record of events and reorientation). So, the dependent variable of this research is Students' Reading Achievement on Recount Text.

III. DATA ANALYSIS AND RESEARCH FINDING

The Data Analysis

This research has done treatment in pre and post test. The result of the students' test can be seen on the following table the raw score

Table 2: The Scores of Experimental Group 1 in Pre-Test and Post-Test

No	Name of Students	Scores Pre-Test (X_1)	Scores Post-Test (X_2)
1	AN	40	75
2	AWK	40	80
3	AR	30	75
4	ANS	50	80
5	AH	35	90
6	AK	40	75
7	DVA	40	75
8	DN	50	85
9	DSP	45	80
10	DI	35	75
11	DPS	50	90
12	DAL	30	80
13	EH	35	80
14	HS	40	85
15	LR	45	85
16	LN	30	80
17	LA	30	85
18	LM	40	90
19	NF	45	80
20	OOZ	30	80
21	PF	50	85
22	RS	30	80
23	RY	30	75
24	RP	40	90
25	RW	40	85
26	SF	35	80
27	SA	35	80
28	SNA	40	85
29	SW	40	75
30	SL	45	85
31	SU	50	85
32	TR	55	90
33	TWS	50	85
	TOTAL	1325	2665
	MEAN	40,1	80,7

From the table above showed that the total scores in experimental group 1 of pre-test is (1325) and post-test is (2665). The mean score in pre-test is (40.1) and post-test is (80,7).

Table 3: The Scores of Experimental Group 2 in Pre-Test and Post-Test

No	Name of Students	Scores Pre-Test (Y_1)	Scores Post-Test (Y_2)
1	AIA	30	60
2	AL	35	70
3	AB	40	65
4	AA	40	70
5	AS	30	70
6	BC	35	75
7	DSS	25	65
8	DR	30	70
9	DP	25	75
10	DW	30	65
11	DA	30	70
12	DF	30	70

13	DP	40	70
14	ES	40	70
15	EK	45	65
16	EFR	45	65
17	FM	40	60
18	FP	30	70
19	ITA	35	75
20	KBB	30	70
21	LAN	30	80
22	LD	35	65
23	LDW	40	70
24	LS	45	70
25	NK	25	65
26	RDU	45	65
27	RFM	40	70
28	RA	35	60
29	RR	35	70
30	SK	40	65
31	SW	50	75
32	SM	45	70
33	WP	40	70
	TOTAL	1170	2210
	MEAN	35,4	66,9

From the table above showed that the total scores in experimental group 2 of pre-test is (1170) and post-test is (2210). The mean score in pre-test is (35,4) and post-test is (66,9).

Table 4: The Mean and Standard Deviation Calculation Experimental Group 1

No	Name of Students	Score (X)	X^2	Da (X-MX)	Da^2
1	AN	75	5625	-5	25
2	AWK	80	6400	-7	49
3	AR	75	5625	-2	4
4	ANS	80	6400	3	9
5	AH	90	8100	-7	49
6	AK	75	5625	-2	4
7	DVA	75	5625	-2	4
8	DN	85	7225	8	64
9	DSP	80	6400	3	9
10	DI	75	5625	-2	4
11	DPS	90	8100	13	169
12	DAL	80	6400	-2	4
13	EH	80	6400	3	9
14	HS	85	7225	-7	49
15	LR	85	7225	8	64
16	LN	80	6400	3	9
17	LA	85	7225	8	64
18	LM	90	8100	-12	144
19	NF	80	6400	-2	4
20	OOZ	80	6400	3	9
21	PF	85	7225	8	64
22	RS	80	6400	3	9
23	RY	75	562	-2	4

			5		
24	RP	90	8100	13	169
25	RW	85	7225	8	64
26	SF	80	6400	3	9
27	SA	80	6400	3	9
28	SNA	85	7225	-7	49
29	SW	75	5625	-2	4
30	SL	85	7225	8	64
31	SU	85	7225	8	64
32	TR	90	8100	13	169
33	TWS	85	7225	8	64
	TOTAL	2665	207750	68	1464
	Mean = 80,7				
	$(\sum X)^2$ = 7102225				

Table 5: The Mean and Standard Deviation Calculation Experimental Group 2

No	Name of Students	Score (Y)	Y^2	Db (Y-MY)	Db^2
1	AIA	60	3600	25,5	650,25
2	AL	70	4900	35,5	1260,25
3	ABs65		4225	30,5	930,25
4	AA	70	4900	35,5	1260,25
5	AS	70	4900	35,5	1260,25
6	BC	75	5625	40,5	1640,25
7	DSS	65	4225	30,5	930,25
8	DR	70	4900	35,5	1260,25
9	DP	75	5625	40,5	1640,25
10	DW	65	4225	30,5	930,25
11	DA	70	4900	35,5	1260,25
12	DF	70	4900	35,5	1260,25
13	DP	60	3600	25,5	650,25
14	ES	60	3600	25,5	650,25
15	EK	65	4225	30,5	930,25
16	EFR	65	4225	30,5	930,25
17	FM	60	3600	25,5	650,25
18	FP	70	4900	35,5	1260,25
19	ITA	75	5625	40,5	1640,25
20	KBB	70	4900	35,5	1260,25
21	LAN	80	640	45,	207

			0	5	0,25
22	LD	65	4225	30,5	930,25
23	LDW	65	4225	30,5	930,25
24	LS	70	4900	35,5	1260,25
25	NK	70	4900	35,5	1260,25
26	RDU	75	5625	40,5	1640,25
27	RFM	65	4225	30,5	930,25
28	RA	60	3600	25,5	650,25
29	RR	75	5625	40,5	1640,25
30	SK	70	4900	35,5	1260,25
31	SW	75	5625	40,5	1640,25
32	SM	70	4900	35,5	1260,25
33	WP	70	4900	35,5	1260,25
	TOTAL	2210	155650	1121,5	42588,25
	Mean = 66,9				
	$(\sum X)^2$ = 4884100				

Data Analysis

The data to be analyzed is obtained by giving the multiple choice test to the students in order to know which one better of PQ4R or CIRC strategy. It is calculated by using scores of reading test in both the experimental 1 and experimental 2. The analysis is intended to get significant difference between PQ4R and CIRC strategy on students' reading achievement on Recount Text. The analyzing of data through pre-test and post-test in both group, experimental 1 and experimental 2 were computed by applying t-test formula to prove the hypothesis in this study.

Technique for Analyzing Data

The data is analyzing by applying by t-test, finally, the significant of the sum, the t-test and t-table is compare with the degree of freedom (df) of the test, the t-test as follow :

$$t = \frac{Mx - My}{\sqrt{\left(\frac{da^2 + db^2}{nx + ny - 2}\right)\left(\frac{1}{nx} + \frac{1}{ny}\right)}}$$

where : Mx = 80,7
My = 66,9
da^2 = 1464
db^2 = 42588,25
Nx =33
Ny = 33

So, that formula is used to analyse the data which is shown below:

$$t = \frac{80,7 - 66,9}{\sqrt{\left(\frac{1464 + 42588,25}{33 + 33 - 2}\right)\left(\frac{1}{33} + \frac{1}{33}\right)}}$$

$$t = \frac{13,8}{\sqrt{\left(\frac{44052,25}{64}\right)\left(\frac{2}{33}\right)}}$$

$$t = \frac{13,8}{\sqrt{(688,31)(0,06)}}$$

$$t = \frac{13,8}{\sqrt{41,29}}$$

$$t = \frac{13,8}{6,425}$$
$$t = 2,147$$

To know degree of freedom (df) is used the formula :
$N_1 + N_2 - 2$
Df = 33 + 33 – 2
Df = 64
From the table
Df 40 = 2,021
Df 64.....?
Df 60 = 2,000
Df 64 is not shown in the list of t-table. So to find out df 58 is :
Df = $\frac{64-40}{66-40}$ x (2,00-2,021)
Df = $\frac{24}{26}$ x -0,021
Df = 0,9 x -0,021
Df = -0,0189
Then, Df 64 can be found as follow :
Df 64= Df 40 + (-0,0189)
Df 64 = 2,021+ (-0,0189)
Df 64 = 2,0021

Testing the Hypothesis

The basis of the testing hypothesis was as follow. Ha was accepted if the t-observed > t-table. In this study the calculation of the score by using t-test for degree of freedom (df) 64 at level value was 2,002. The result of computing the t-test shows that the t-observed (t-obs) is higher than t-table. It can be seen as follow :
t-obs > t-table (p=0,05, df 64)
2,125> 2,002 (p=0,05 df 64)

It indicates that there was a significantly difference between PQ4R and CIRC strategy on students' reading achievement recount text. It means that the hypothesis alternative (Ha) was accepted.

Disscussion

This research was conducted by using experimental design. The sample of this research was taken by using random sampling technique from grade XI students of SMK Al Ma'shum Sidodadi. The total number of the sample were 66 students.

The application of 2 strategies to the experimental group 1 and experimental group 2 helped the teacher to design teaching materials. Since 2 of strategies were applied to the both of experimental group, the achievement of the both of experimental group was different. It was proven from the scores obtained by the students where the experimental group 1 was higher scores than the experimental group 2. The mean students' score on the post test of the experimental group 1 was 80,7 while the mean students' score on the post test of the experimental group 2 is 66,9.

In application this strategy on this research was compare that in class XI-TKJ1 taught by using PQ4R strategy, the students were more relax in addition to foster responsibility, cooperation, good competition, concentrate, and the involvement of learning. In the learning process, they were active, condusif followed the material, and spirit because this research prepwered the reward for them who got higher score. While in class XI-TKJ2 taught by using CIRC strategy, the students were also active and followed the learning process. But their less concentrate and not condusif. They played with the other groups when two of group visit to another groups. It made a noise. So, their result in the material is not satisfied.

This research compared

between PQ4R and CIRC strategy that PQ4R strategy is better than CIRC strategy, it was seen from situation of class when this research taught the materials using this strategy and their result of post-test.

IV. CONCLUSION AND SUGGESTION

The Conclusion

Having analyzed the data thoroughly, this research concluded were drawn that Ha is accepted if T-obs> T- table and Ho is accepted if T-obs< T-table. In this research, the calculation of the scores by using T-test for the degree of feedom (df) 58 at level significance 0,05 where the T-table is = 2,002. And the result of T-obs is 2,147. The result of computing the T-test shown that T-obs is higher than T-table or it can be seen as follows :

T- obs > T- Table (0,005) with df 58 or 2,147 > 2,002 (0,05) with df 58.

So, from this result and based on the criteria of accepting hypothesis can be concluded that Ha is accepted which mention that teaching descriptive text by using PQ4R strategy is higher score than using CIRC strategy at grade XI of SMK Al Ma'shum Sidodadi in academic year of 2019/2020.

The Suggestion

The suggestion were given as follow :

1. It is suggested that English teacher should use the strategy in teaching and learning process especially in teaching reading.
2. By applying PQ4R and CIRC Strategy, the teacher can know the differences, then it is suggested to the teacher to use both or the strategy

REFERENCES

Arikunto, Suharsimi. (2006). *Prosedur Penelitian Suatu Pendekatan Praktek.* Jakarta: Bina Aksara.

Anderson, Duston & Poole. (2006). *Efficient Reading, A practical Guide.* Sydney: McGRAW-HILL BOOK COMPANY.

Brown, H. Doughlas. (2004). *Language Asessment:* Principle an Classroom Practice. New York : Person Longman.

Faturrahman. (2009). *Strategi Belajar Mengajar*. Bandung: Refika ahmad

Gillies Robyn and Adrian f. Ashman. (2005). *Cooperative Learning.* New York: Routledge Falmer

Huda, Miftahul. (2014). *Model-model Pengajaran dan Pembelajaran.* Yogyakarta: Pustaka Belajar

Imam, Djauhari. (2004). *Mastery on English Grammar.* Surabaya: Amelia

Johan, Ghani. (2003). *Reading and Translation.* Yogyakarta : Pustaka Pelajar

Johnson, M. Dona. (1987). *Approaches to Research in Second Language Learning.* Newyork: University of Arizona Longman