

THE EFFECTIVENESS OF USING PREVIEW, QUESTION, READ, REFLECT, RECITE AND REVIEW (PQ4R) TOWARD STUDENTS' CRITICAL THINKING ABILITY ON READING COMPREHENSION

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Abstract

This research was aimed at knowing the effectiveness of using Preview, Question, Read, Reflect, Recite and Review or PQ4R toward Students' Critical Thinking Ability on Reading Comprehension at Second Grade Students at SMAN 1 Batulayar in Academic Year 2017/2018. This research was an experimental research and the design was quasi-experimental nonequivalent design pre-test post-test design. The sample all of students at Second Grade and the total number was 24 students in which consisted of two classes. Where II-A consisted of 12 students and II-B consisted of 12 students. The class divided into two groups, namely experimental group and Control group. The data was collected by using pre-test and pos-test. The instrument of this research used was reading test inform of multiple choice test. The technique that used to analysis the data was t-test formula. From the data analysis, it found that the result of t-test (1.41) was lower than t-table (1.714). The mean score of experimental group in post-test was (19.16) and the mean score of pre-test was (7.08). Based on the result of the research, it can be concluded that the used of PQ4R has not effective toward Students' Critical Thinking Ability on Reading Comprehension at Second Grade Students of SMAN 1 Batu Layar in Academic Year 2018/2019.

Keywords: *Reading, Critical Thinking, PQ4R*

INTRODUCTION

Reading is one of the important English skills besides listening, speaking and writing. Reading is an activity to find out information from the text. Max Coltheart (1970: 1) states that reading is an information processing, transforming print to speech, or print to meaning. By reading, ones will know everything whether it is command, prohibition, recommendation, job vacancy, news, etc. Besides, reading us also very helpful to increase ones' knowledge because almost all of the information and instruction are in written form, for instance: education, technology, science, and communication, trade etc.

At school, reading is very important for students because by comprehending reading the students will be able to

increase their knowledge on culture. One the keys for acquiring language are through reading and by reading a reader may read the best books and other media that are very important point information to increase our capability and to get many ideas. Clearly, reading was an essential aspect of self-preservation in dynamic society.

In fact, the students found difficulties to comprehend their skill, especially in English reading text. Because this reason, a student should use critical thinking strategy. A reality shows that the result of Senior High School has not been satisfactory especially the English teacher who teaches reading comprehension at SMAN 1 Batu Layar West of Nusa Tenggara. It because of their teachers in

teaching learning process using a conventional strategy such “read and answer” question on the text itself. So, there were students often found the difficulties to identify arguments, finding arguments, looking for words as clues, exercise in finding arguments, etc. It might be difficult to achieve if they are not serious in their learning process at their school. Such as that reason the researchers would like to investigate a research entitled “The Effectiveness of using Preview, Question, Read, Reflect, Recite and Review (PQ4R) toward Students’ Critical Thinking Ability on Reading Comprehension at Second Grade Students of SMAN 1 Batu Layar in Academic Year 2018/2019”.

RESEARCH METHOD

The design of the research was a quasi-experimental nonequivalent design. Based on Sugiyono (2013) that the quasi nonequivalent group experimental is when the experimental group and control group not selected randomly and the treatment in experimental group use PQ4R and the control group use Pre-questioning.

Table 1
The Design of Research

Group	Pre-test	Treatment	Post-test
Experimental R1	T ₁	PQ4R (X1)	T ₂
Control R2	T ₁	Pre-questioning (X2)	T ₂

Where: R1 : Experimental Group

T1 : Pre-test

X1 : Treatment by using PQ4R

T2 : Post-test

R2 : Control Group

T1 : Pre-test

X2 : Treatment by using pre-questioning

T2 : Post-test

Population

Arikunto (2010) stated that the population was the whole of the research subject. Based on the definition above, the researcher found that the population of this research was at Second Grade of SMAN 1 Batu Layar Lombok Barat in Academic Year 2018/2019. Then, the students were divided into two classes where each consisted of experimental group was 12 students and control group consisted of 12 students. So the population of the students was 24 students. The population of the grade students can be shown in table below.

Table 2
The Descriptive Population

No.	Population	Number of the Population
1.	Class II-A	12
2.	Class II-B	12
Total		24

Sample

The sample of this research was all students at Second Grade of SMAN 1 Batu Layar Lombok Barat were divided as experimental group and control group and pointed out as experimental group, the researcher used lottery. And based on the result of the lottery II-A was 12 students as experimental group and III-B the control group where each class consists of 12 students.

Instrument

Arikunto, (2002) said that instrument is a tool of doing research by using a method this research; the researcher used a test as an instrument; Therefore, to measure critical thinking ability of students on reading descriptive text the researcher used critical thinking test and multiple choice test on reading.

Technique Of Data Collection

The data were items obtained from the students after doing the test (instrument) given to them; test itself is a method of measuring a person's ability, knowledge or performance in giving domain. The obtained through Pre- test and Post-test.

1. Pre-test

In the process of collecting data, the researcher gave a test to the students. The test was given to both of experimental group and control group. Treatment used multiple choice consisting of 20 items multiple choice. But control group used multiple choice consisted with 20 items too. The pre-test was intended to know the students' achievement in students reading ability before the treatment was given.

2. Post-test

After the teaching process, the researcher gave post-test to both groups. The test was given to both of experimental group and control group. Where, the treatment multiple choices applied in the form consisted of 20 items and controls group 20 items too. Then, the students selected one of the best answers.

FINDING AND DISCUSSION

Research Finding

The research designed was conducted, at the first step the researchers give pre-test, the aim of this test was to find out basic knowledge of students about reading material, at the second the researcher gives a treatment to created students deeply understand on the reading material, at the third the researcher gave post-test, the aim of this test to know students improvement and the last, the researcher gives questionnaire knowing students' critical thinking ability on reading. Here

the score of experimental groups on the table below.

Table 3
The Score of Experimental Group

NO.	Initials	Pre-test (X1)	Post-test (X2)	Deviation (Dx)	Dx^2
1	A-1	45	75	30	900
2	A-2	55	65	10	100
3	A-3	40	50	10	100
4	A-4	55	80	25	625
5	A-5	50	75	25	625
6	A-6	45	70	25	625
7	A-7	35	55	10	100
8	A-8	35	45	10	100
9	A-9	30	55	25	625
10	A-10	45	70	35	1225
11	A-11	50	60	10	100
12	A-12	30	45	15	225
Total		$\sum X_1 = 515$	$\sum X_2 = 745$	$\sum D_x = 230$	$\sum DX^2 = 5350$

Table 4
The Score of Control Groups

NO.	Initials	Pre-test (Y1)	Post-test (Y2)	Deviation (DY)	DY^2
1	B	30	50	20	400
2	B-2	40	40	0	0
3	B-3	10	35	25	625
4	B-4	45	55	10	100
5	B-5	55	55	0	0
6	B-6	45	25	20	400
7	B-7	50	45	5	25
8	B-8	15	20	5	25
9	B-9	45	80	35	1225
10	B-10	35	65	25	625
11	B-11	45	20	25	625
12	B-12	35	45	10	100
TOTAL		$\sum Y_1 = 450$	$\sum Y_2 = 535$	$\sum DY = 180$	$\sum DY^2$

The descriptive of this research deals with analysis and interpretation of two scores of the test. After counting the deviation scores of experimental groups and control groups, then it continued to

analysis and interpretation of the mean deviation of each group as well as the result of the computation of the deviation of two mean deviation scores of each group and the value of “t”. In this case, the researcher followed several integrated steps below to analyze the data.

Calculating the students’ the deviation scores of two groups: Experimental groups (x) and control groups (y). The following formula was applied:

1). The Deviation Scores of Experimental Groups (X)

$$DX = X2 - X1$$

Where:

- DX: Deviation
- X2 : Post-test (745)
- X1 : Pre-test (515)

So, the deviation score of experimental group was: (230)

$$\begin{aligned} DX &: X2 - X1 \\ DX &: 745-515 \\ \sum DX &: 230 \end{aligned}$$

2) The Deviation scores of control group (Y)

$$Y = Y2 - Y1$$

Where:

- DY : Deviation
- Y2 : Post-test (535)
- Y1 : Pre-test (450)

So, the deviation scores of control group was: (85)

$$\begin{aligned} DY &= Y2 - Y1 \\ DY &= 535 - 450 \\ \sum DY &= 85 \end{aligned}$$

Calculating the students’ mean deviations score of two variable X and Y. The following formula was applied:

1) Calculating the students mean deviations score of two variable X and Y. The formula was applied:

$$\overline{DX} = \frac{\sum Dx}{Nx}$$

Where:

- \overline{Dx} : Mean deviation
- $\sum Dx$: The total deviation of experimental groups (230)
- Nx : Total sample of experimental (12)

So, the mean scores of experimental group (X) were:

$$\begin{aligned} \overline{Dx} &= \frac{230}{12} \\ \overline{Dx} &= 19.16 \end{aligned}$$

2). Calculating the students’ mean deviation scores of control groups (Y). The formula was applied:

$$\overline{Dy} = \frac{\sum Dy}{Ny}$$

Where :

- \overline{Dy} : Mean deviation
- $\sum Dy$: The total deviation of control groups (85)

Ny = Total sample of control (12)

So, the mean scores of control group (Y) were:

$$\begin{aligned} \overline{Dy} &= \frac{85}{12} \\ \overline{Dy} &= 7.08 \end{aligned}$$

Identifying the significance of the deviation scores from two mean deviation scores. The following t-test formula was applied to countering the significance of the deviation scores from two mean deviation scores was :

$$t = \frac{\overline{Dx} - \overline{Dy}}{\sqrt{\left(\frac{\sum Dx^2 + \sum Dy^2}{Nx + Ny - 2}\right) \left(\frac{1}{Nx} + \frac{1}{Ny}\right)}}$$

Where:

- t = t-test
- $\overline{Dx} = 19.2$
- $\overline{Dy} = 7.1$
- $\sum Dx^2 = 5350$
- $\sum Dy^2 = 4150$
- $Nx = 12$
- $Ny = 12$

$$t = \frac{19.2 - 7.1}{\sqrt{\left(\frac{5350 + 4150}{12 + 12 - 2}\right) \left(\frac{1}{12} + \frac{1}{12}\right)}}$$

$$t = \frac{19.2 - 7.1}{\sqrt{\left(\frac{9500}{22}\right)\left(\frac{2}{12}\right)}}$$

$$t = \frac{19.2 - 7.1}{\sqrt{(431.82)(0.17)}}$$

$$t = \frac{19.2 - 7.1}{\sqrt{(73.41)}}$$

$$t = \frac{19.2 - 7.1}{8.57}$$

$$t = \frac{12.1}{8.57}$$

$$t = 1.41$$

Questionnaires

The researcher was used Linkert scale to describe students' critical thinking ability on reading by using PQ4R technique. The researcher elaborated as follow:

- a. Item number 1: The value of this item is $(19 \times 5) + (5 \times 4) + (1 \times 3) = 118$. Item number 1 was percentage 94.4%.
- b. Item number 2: The value of this item is $(19 \times 5) + (6 \times 4) = 119$. Item number 2 was percentage 95.2%.
- c. Item number 3: The value of this item is $(20 \times 5) + (5 \times 4) = 115$. Item number 3 was percentage 92%.
- d. Item number 4: The value of this item is $(19 \times 5) + (6 \times 4) = 119$. Item number 4 was percentage 95.2%.
- e. Item number 5: The value of this item is $(19 \times 5) + (6 \times 4) = 119$. Item number 5 was percentage 95.2%.
- f. Item number 6: The value of this item is $(24 \times 5) + (1 \times 4) = 124$. Item number 6 was percentage 99.2%.
- g. Item number 7: The value of this item is $(17 \times 5) + (7 \times 4) + (1 \times 3) = 116$. Item number 7 was percentage 92.2%.
- h. Item number 8: The value of this item is $(19 \times 5) + (6 \times 4) = 119$. Item number 8 was percentage 95.2%.
- i. Item number 9: The value of this item is $(15 \times 5) + (10 \times 4) = 115$. Item number 9 was percentage 92%.
- j. Item number 10: The value of this item is $(21 \times 5) + (4 \times 4) = 121$. Item number 10 was percentage 96.8%.

Discussion

Based on analysis, it is clear that null hypothesis (H_a) is rejected which states: if $t\text{-test} > t\text{-table}$ in testing hypothesis, (H_o): PQ4R has not effective on reading at SMAN 1 Batu Layar Lombok Barat in academic year 2018/2019. It was accepted. The analysis and the interpretation of data eventually lead the researcher to conclude that the used of PQ4R has no effective on reading at SMAN 1 Batu Layar Lombok Barat in academic year 2018/2019. From the obtained, it was found that $t\text{-test}$ was low than $t\text{-table}$ by using the confidence level 0,10%. The degree of freedom (df) was 23. Obtained, it was found that its $t\text{-test}$ was 1.41 Meanwhile its $t\text{-table}$ was 1.714 It means that value is lower than $t\text{-table}$, where 1.41 Based on these evidences, it can be concluded that PQ4R is rejected in teaching reading.

CONCLUSION AND SUGGESTION

Based on the result of investigation was conducted and the researcher concludes that the different scores of mean deviation between experimental group 19.16 and control group 7.08 show that there was significant score after conducting this research. The experimental scores after treatment were lower than control group and $t\text{-test}$ is lower than $t\text{-table}$, so that it is indicated that the PQ4R towards students' critical thinking cannot be used in teaching reading. The null hypothesis (H_o) which state "PQ4R towards students critical thinking ability is not effective in teaching reading toward students' critical thinking ability on

reading at SMAN 1 Batu Layar Lombok Barat in academic year 2018/2019. It clearly is rejected.

On the conclusion, the researcher would like to propose some suggestions that for the English teachers at SMAN 1 Batu Layar Lombok Barat as facilitator and motivator must be creative to choose suitable strategy and evaluated the PQ4R strategy before teaching their students base on reading critical thinking. As we know that there is no effect in teaching reading toward students' critical thinking ability of SMAN 1 Batu Layar Lombok Barat in academic year 2018/2019.

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