IMPROVE STUDENTS' COMPETENCE IN READING COMPREHENSION BY USING 5E (ENGAGMENT, EXPLORATION, EXPLANATION, ELABORATION, AND EVALUATION) MODEL AT SMP NEGERI 40 HALMAHERA SELATAN

Saiful Latif

English Language Education Study Program of Khairun University
Ternate, Indonesia
Email: Saifullatif203@gmail.com

Abstrak

Tujuan dari penelitian ini yaitu untuk mengetahui sejauhmanakah penggunaan model pembelajaran siklus 5E untuk meningkatkan pemahaman membaca siswa di kelas 2 SMP Negeri 40 Halmahera Selatan. Penelitian ini menggunakan metode kuantitatif khususnya pre -experimental dan menggunakan satu grup test awal dan test ahir. Populasi dalam penelitian ini adalah siswa kelas 2 SMP Negeri 40 Halmahera Selatan dengan total berjumlah 26 siswa. Peneliti menggunakan semua siswa di kelas tersebut sebagai sample dengan menggunakan conveniont sample. Instrumen ini menggunakan soal pilihan ganda 50 butir soal test awal dan test ahir kemudian analisis menggunakan rumus t-test. Hasil ini menginformasikan bahwa ada perbedaan signifikan antara pretest dan posttest dari pencapaian siswa. Pada hasil nilai tes awal 914 dan tes akhir 1280, kemudian hasil dari analisis statistik pada level signifikan 0.05 dan degree of freedom (df) adalah 25. Menunjukkan bahwa t-test 11.34 lebih besar dari pada t-table 1.708. Dapat disimpulkan bahwa sebagian besar pemahaman membaca siswa meningkat sesudah menggunakan model pembelajaran siklus 5E.

Kata Kunci: *Pemahaman Membaca, model pembelajaran, siklus 5E*

Abstract

The aim of this research is to know wether the use of 5E learning cycle model in improving students reading comprehension at the second grade students of SMP Negeri 40 Halmahera Selatan. This research used quantitative research with pre- experimental design and used one group pretest and posttest. The Population of this research was the second grade students of SMP Negeri 40 Halmahera Selatan with total amounts 26 students. The researcher use all the students as sample by using convenience sampling. The instrument of the research used multiple choice test consist of 50 items pretest and postest, then was analyzed by t-test formula.The result showed that there was significant difference between pretest and posttest of the students achievement. In the result of pretest 914,, and posttest 1280, so the result of statistical analysis of the level significance 0.05 with the degree of freedom (df) is 25. It is indicated that t-test 11.34 is higher than t-table 1.708. It can be concluded that most of the students' reading text improved after using 5E learning cycle model.

Keywords: *Reading comprehension, 5E learning cycle model.*

INTRODUCTION

Reading is an important activity in every language. Reading is incidentally visual, the reader then contributes more information by the print on the page (Brown, 2001:299). Moreover, Richard and Renandya (2002: 273) state that reading has special spotlight in many second and or foreign language learning situations. In other words, reading becomes an important activity because it enables people to find out information from variety of the texts, to get pleasure, to get jobs, and to deal with some study purposes. Reading enables people to find out information from a variety of texts, written or printed information from newspapers, magazines, advertisements, and brochures. In reading activity, we are not only reading the text, but also trying to understand what we are reading.

Based on observations to SMP Negeri 40 Halmahera Selatan, there were many students at the second grade of SMP Negeri 40 Halmahera Selatan could not comprehend the reading text well. Most of the students had difficulties in comprehending a text. Therefore, they could not find the detailed information from the text. If the teacher asks them to answer some questions related to the text, most of the students could not answer well. The students got difficulties to understand the text. In this case, the students comprehension of SMP Negeri 40 Halmahera Selatan still lack. It can be seen in answering some related questions to the reading contain.

The teacher's role in determining the method or model of learning the classroom is not determined by what will be learned, but rather how to provide appropriate learning and can make the learning process more effective. Due to the method or model appropriate learning students are able to understand the subject matter with ease. As well as learning the teacher must also have a method or model appropriate learning. Therefore, a study would be more interesting if the teacher uses a model that is expected to attract students to learn better. So, in this case, the researcher use 5E (engagement, exploration, explanation, elaboration, and evaluation) learning cycle model.

The 5E learning cycle is a model student-centered learning. 5E learning cycle is a series of stages of activities (phase) which is organized so, that students play an active role to be able to master the competencies that must be achieved in the learning objectives. 5E learning cycle is one of the complete constructivist models in the cases of research-based learning or brain-storming which are used in the classroom (Campbell, 2000). Students have to think creatively and complex for

overcoming problems and difficulties and as a result, they have to think in an integrative manner in order to unify their thoughts. This situation can only occur when students have higher order thinking competence. These competences are called also critical thinking competence.

Reading

Reading is one process to know a concept or text in one knowledge which we study. Reading is a skill in learning English that must be mastered by students in as a foreign language about text books and materials are written in English. According to Weaver (2009) in Syaveny (2017: 153) reading is a process to determine, what the reader's brain, emotions and beliefs bring to the reading. It means that reading is the reader's way in interpreting the printed words. It is supported also by Linse (2005: 69) in Syaveny (2017: 153) argues that reading is making sense of printed word.However, teaching reading comprehension is not an easy job for the teacher. The teachers need improve their teaching method or strategy in order to help the students get the point in reading the text.While, according to Widya (2015:1), reading is a kind of a crucial activity in an attempt to master a certain language. Harmer (2007 cited in Widya, 2015: 1) supports this by saying that reading is beneficial not only for careers, study, and pleasure, but also language acquisition. Reading can also make us understand each material which we study, since by reads can add scholarship. According to Mcnamara (2007:15), reading is not a reaction to text but an interaction between writer and reader medicated through the text. It is clear that reading is fundamental requirement that can influence the students' achievement in studying English through reading. Moreover, Mikulecky and Jeffries (1996) state that reading can improve the students' general language skills in English.

Competence

Competency is often used to describe the knowledge to be able perform at a particular task. According to Norman (1985) competency is more than knowledge. It includes the understanding of knowledge, clinical, technical, and communication skills, and the ability to problem solve through the use of clinical judgment. Competence is the ability to perform a specific task, action or function successfully.

Reading Comprehension Strategies

Reading comprehension strategies are tools that proficient readers use to solve the comprehension problems they encounter in text. Zimmermann and Hutchins (2003: 20). Identify seven reading comprehension:

1. Activating or building backround knowledge;
2. Using sensory images;
3. Questioning;
4. Making predictions and inferences;
5. Determining main ideas;
6. Using fix-up opions;
7. Synthesizing.

5E Learning Cycle Model

According to Lorsbach (2006), 5E model is a learning cycle model that facilitates learning creates beneficial opportunities for students while learning. The 5E learning cycle model is a constructivist model which provides learning a new concept or comprehension deeply a known concept.

Stages of 5E Learning Cycle

5E learning cycle consists of five stages which consists of the generation stage of interest. Engagement, exploration, explanation, elaboration, and evaluation (Lorsbach, 2002).

Advantages and Disadvantages of 5E Learning Cycle

According to Cohen and Clough (in Wibowo, 2010: 2), the application of 5E learning cycle model provide the following advantages:

a. Increasing students' motivation to learn because it is actively involved in the learning process
b. Helping students develop as scientific attitude.
c. Learning becomes more meaningful.

Meanwhile, the disadvantage of 5E learning cycle model application should always be anticipate dare as follows:

a. Low effectiveness of learning if the teacher did not master the material and learning steps.
b. Demanding sincerity and creativity of teachers in design and implementing the learning process.

c. Classroom management requires a more planned and organized Require time
    and more energy in designing and implementing learning.

METHODOLOGY

The research design used is quantitative pre-experiment with one group
pretest and posttest. This design used pretest, before treatment was given. Thus the
results of treatment can be more accurately known, because it can be compared
with the situation before treatment was given. In this research, there were two
variables: independent variable and dependent variable. The independent variable
was 5E learning cycle model and dependent variable was reading comprehension.

The population of this research was the second grade students of SMP
Negeri 40 Halmahera Selatan in academic year 2018/2019, and the total amounts
was 26. There were one class of the second grade students of SMP Negeri 40
Halmahera Selatan. This researcher used convenience sampling to obtain the
sample. Convenience sampling is used to determine the sample area when the
object to be examined or the source of the data is very broad (Sugiyono, 2013: 83).
The researcher took all of the population as sample of the resarch.

The instrument of the research was reading comprehension test. The test
pretest and posttest. It was multiple choice with 50 items with a maximum score of
100. The test is taken from UN Junior High School English book by Mokhamad
Sabil Abdul Aziz, Rolisda Yosintha and Agus Kamaludin. Then, researcher gave
the score using the formula:

Table 1. Multiple choice assesment

No	Answer	Score
1	True	1
2	False	0

$$S = \frac{total\ correct\ answer}{maximum\ score} x\ 100$$

$$= \frac{total\ correct\ answer}{50} x\ 100$$

Table 2. Scoring Criteria and Classification

No	Classification	Scoring
1	Excellent	85-100
2	Good	70-84
3	Fair	50-69

4	Poor	<50

(Iskandar, 2010: 13)

This research used dependent t-test analysis because dependent sample were sample formed which pre-test before treatment and the post-test. To the result of pre-test and post-test the researcher used the formula follows:

a. Scoring the students' correct answer of pre-test and post-test.

$$\text{Siswa} : \frac{total\ correct\ answer}{maximum\ score} \times 100$$

b. Calculating the mean score or the students' answer by using formula:

$$t = \frac{\overline{D}}{S\overline{X}D}$$

t = Gussett scores

S $\overline{X}$ D = Standard error of mean differentiations

$\overline{D}$ = The difference between pretest and posttest

N = Total sample

To analyze the formula above, that formula has been show below:

1. Counting the difference between x_1 and x_2

$$\overline{D} = \Sigma \frac{D}{N}$$

2. Counting standard deviation of the difference

$$SD = \sqrt{\frac{\Sigma D^2}{N} - \overline{D}^2}$$

3. Counting Standard Error of means

$$S\overline{X}D = \frac{SD}{\sqrt{N-1}}$$

4. Counting t Score

$$t = \frac{D}{SXD}$$

5. 0.05

(L.R: Gay, 2006 : 42)

FINDINGS AND DISCUSSION

Findings

This analysis was intended to find out the comparison whether there is a significant difference between results of pretest and posttest. The researcher gave test to the students in reading text by using multiple choice. After that, the researcher collected students score. The data analyzed are presented in the table.

The table below showed the finding research on each students result with score of pretest and posttest.

In analyzing the data, the researcher used dependent t-test as follows:

1. Counting the difference between X_1 and X_2

$$X_1 = \frac{914}{26} = 35.15$$
$$X_2 = \frac{1280}{26} = 49.2$$
$$X_2 - X_1 = 49.2 - 35.15$$
$$\sum D = 14.05$$

Then, put into the formula below:

$$\bar{D} = \frac{\sum D}{N} = \frac{366}{26} = 14.07$$

2. Counting standard deviation of the difference (SD)

$$SD = \sqrt{\frac{\sum D^2}{N} - \bar{D}^2}$$
$$= \sqrt{\frac{6143}{26} - 14.07^2}$$
$$= \sqrt{236.46 - 197.96}$$
$$= \sqrt{38.5}$$
$$= 6.20$$

3. Counting standard error of means

$$SXD = \frac{SD}{\sqrt{N-1}}$$
$$= \frac{6.20}{\sqrt{26-1}}$$
$$= \frac{6.20}{\sqrt{25}}$$
$$= \frac{6.20}{5}$$
$$= 1.24$$

4. Counting t-score

$$t = \frac{\bar{D}}{S\bar{X}D}$$
$$= \frac{14.07}{1.24}$$
$$= 11.34$$

From the counting data above, it shows that t- test 11. 34= is higher than t-table =1.708 at the significant level of 0,05 by using N=1 = 26- 1= 25.

1. The mean score and standard devition between the pretest and postest

Table 3. The mean score and standard devition between the pretest and postest

Test	Mean score	Standard devition
Pretest (X_1)	35.15	
Posttest (X_2)	49.2	6.20

2. T-test Value

In order to know whether or not the differences between pretest and postest test is statistically significant, the t test analysis for non-independent sample is employing. The rsult of the t-test is t =11,34.

Table 4. T-test of students achievment

Variable	T-test value	T-table
X_1-X_2	11.34	1.708

3. Hypothesis testing

To find out degree of freedom (df) the researcher using the following formula:

df = N-1
df = 26-1
df = 25

It shows that students' score of pretest and posttest are 26 students getting score average in pretest (X1) is 914, posttest (X2) is 1280, (The range or difference of pretest and posttest) D is 366, D² is 6148. Furthermore, from the analysis and the counting above, it shows that t-test = 11.34 is higher than t- table = 1.708 at the significant level 0,05 by using N- 1 = 26-1= 25. It means shows that Reading is one important way to improve your general language skills in English.

Furthermore, the researcher can conclude that Alternative hypothesis (Hi) stating that can improve students' Reading comprehension at SMP Negeri 40 Halmahera Selatan is accepted and null hypothesis (Ho) stating that cannot improve students' Reading comprehension at SMP Negeri 40 Halmahera Selatan is rejected.

Discussion

In learning reading we need a model. The one of model that can be used is 5E learning cycle. This model which increase students skill in comprehending text, by satisfying expectations of students, consist of active research skill and activities that are necessary for knowledge and comprehension (Ergin, Unsal, and Tan, 2006). 5E learning cycle model is effective for teaching reading comprehension, because, it help students knew information in text.

In this research found that the students' achievement in reading before giving treatment all students obtained good. After the researcher gave treatment, the students reading comprehension at SMP Negeri 40 Halmahera Selatan can be improved. This is supported by the data of table. It means that value in posttest is higher than pretest. In the other word, by using 5E learning cycle Model of SMP Negeri 40 Halmahera Selatan and it means that Hypothesis null (H_o) was rejected and Hypothesis alternative (H_i) was accepted.

It can be seen from the data collected through pretest and posttest that shown by the students' reading comprehension at SMP Negeri 40 Halmahera Selatan is good. It is supported by the result of the students' score of pretest and posttest. The students' score teaching reading in using 5E learning cycle Model is better than before the treatment.

CONCLUSION

The data analysis in previous chapter, the researcher concluded that the use of 5E learning cycle model can improve students' competence in reading comprehension at the second grade students of SMP Negeri 40 Halmahera Selatan**.** It   proved that, the difference between pretest and posttest score. The result of pretest was 914, and the 914 distributed 26 students. So, the result of pretest can categoryze with poor, and the result of posttest was 1280. Then 1280 distributed 26 students. So, the result of posttest can category with fairly good. The range or difference of pretest and posttest are 366 scores. The t-test value 11.34 where as the value of t-table was 1.708. It means that, the alternative hypothesis (H_i) was accepted and nul hypothesis (H_o) was rejected because there are significant defferences between posttest and pretest. The statistical data also showed that, the using 5E learning cycle model can improve students' reading comprehension or significant.

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