The Effectiveness of Authentic Materials to Improve Reading Comprehension of The Eighth Grade Students of SMP Negeri 5 Palu

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Abstract

The objective of this research was to prove whether or not the use of authentic materials improves reading comprehension of the eighth grade students of SMP Negeri 5 Palu. This research used quasi-experimental research design, involving an experimental group and a control group. The population of the research was the eighth grade students of SMP Negeri 5 Palu. The sample was taken by applying purposive sampling technique. The sample was 27 students of VIII B as control group and 27 students of VIII D as the experimental group. The instrument in collecting data was test (pretest and posttest). In this research, authentic materials is original materials in the form of printed materials, which can be found in everyday life with a clear context. The data in this research were analyzed statistically with a significance level of 0.05 and degree of freedom (df) = 52, the results showed that $t_{counted}$ value is 8.47 which is greater than t_{table} 2.0126, which indicated that the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted. In other words, the reading comprehension of the eighth grade students of SMP Negeri 5 Palu can be improved by using authentic materials.

Keywords: *Authentic Materials, Reading Comprehension*

Introduction

Reading is very important for students because students gain information and can think critically by reading. Reading is an activity of getting information either from books, the internet or writings on posters, newspapers, etc. According to Khasanah, Fitriani, Rahmawati, Priyantoro, Haddar, and Solissa (2023:1164), "Reading has the value of helping the students learn to express their own thoughts and make them familiar with the language patterns and ways of using language efficiently." Reading aims to get an idea in a written text and is also a way to discover new ideas, facts and knowledge. Therefore, in the reading process, students must improve reading comprehension to understand a text so that they know what is including in the reading and are able to express their own thoughts.

Reading comprehension is the readers' ability to understand the content of an argument, expository, or read a description of a particular topic to produce new information and knowledge through what they read. Reading comprehension is defined as a language learners' ability to understand a written text to find the main idea and certain information. Gilakjani and Sabouri (2016:230) state the purpose is to get an understanding of the text rather than to acquire meaning from individual words or

sentences. This means that, students do not just read but are able to gain understanding of the text. At the junior high school level, based on learning outcomes in the Merdeka Curriculum, "Students use oral, written, and visual texts in English to interact and communicate in more diverse contexts and formal situations and informal" (Kemendikbud Ristek, 2022). Learning outcomes are a description of the achievements of three aspects, namely knowledge, skills, and attitudes produced by students in learning activities. This can be obtained by improving reading comprehension in various types of texts. So that, at the end of the lesson, students can explain or defend an opinion through the results of the reading content. However, it should be noted that there are several problems in understanding reading, especially in English.

After researcher conducted observations with teacher and students at SMP Negeri 5 Palu, there were several obstacles that caused students to have difficulty in mastering reading comprehension. These difficulties were determining the main idea and lacking of vocabulary. These obstacles ultimately cause students do not understand and uninterested in reading.

To improve students' reading comprehension, the researcher used authentic materials as an interesting learning medium. This has a positive impact that can motivate students, especially in cases of lack of reading comprehension in English. Guariento and Morley (2001) state that extracting real information from a real text in a new or different language can be extremely motivating, therefore increasing students' motivation for learning by exposing them to 'real' language. Authentic material will enable students to study phenomena and events in everyday life. According to Berardo (2006:67), "One of the main reason for using authentic materials in the classroom is once outside the "safe", controlled language learning environment, the learner will not encounter the artificial language of the classroom but the real world and language how it is really used". This will introduce words that are familiar in life. So that, students can easily know the meaning and the sound of words, which creates students' confidence when reading. Akbari and Razavi (2015:111) state that using authentic materials has a positive attitude that can improve students' skills and introduce them to real language.

Based on the reasons above, authentic materials can be used as an alternative in teaching reading to improve students' reading comprehension abilities. Therefore, the researcher is intended to conduct a research entitled "The effectiveness of authentic materials to improve reading comprehension of the eighth grade students of SMP Negeri 5 Palu", the researcher would like to investigate the effectiveness of authentic materials to improve reading comprehension.

Method

In this research, the researcher used quasi-experimental research design. The researcher chose this design because it was to find out between variables involving a control group and an experimental group, and wants to investigate the relationship between the dependent and independent variables and clarify the causes of this relationship. Based on the title of the research, the dependent variable was reading comprehension, while the independent variable was the use of authentic materials of eighth grade students of SMP Negeri 5 Palu. The design of this research was proposed by Sugiyono (2015:116) as follows:

Experimental group $\quad\quad\quad\quad O_1 \quad X \quad O_2$
Control group $\quad\quad\quad\quad\quad\quad O_3 \quad\quad O_4$

The population in this study was the eighth grade students of SMP Negeri 5 Palu. The eighth grade was divided into four parallel classes A, B, C, D and each class consisted of 26 to 27 students. The total number was 107 students.

Table I Distribution of Population

No	Classes	Number of Students
1.	VIII A	26
2.	VIII B	27
3.	VIII C	27
4.	VIII D	27
	Total	107

The researcher selected a sample by applying purposive sampling, and took class VIII B as the control group and VIII D as the experimental group. The researcher took these two groups because there were still many students who experienced difficulties in reading comprehension, even though these groups have a specialization in English as a subject.

In data collecting, researcher used tests consisting of a pretest and posttest. Data collection was carried out for one month at SMP Negeri 5 Palu. The researcher spent one month collecting data, where at the first meeting the researcher gave a pretest consisting of multiple-choice and reading comprehension test. Then, at the second to seventh meeting, the researcher provided treatment to the experimental group. The eighth meeting, the researcher gave a posttest in the form of multiple choice and reading comprehension tests to see students' reading comprehension. Then, the researcher calculated the students' pretest and posttest results analyzed statistically.

Results

The result was obtained using test instruments (pretest and posttest) in both groups. The following section presents the result of the test (pretest and posttest) of the control group and the experimental group. The researcher gave pretest to both groups; experimental and control. The pretest was given to the exerimental group on April 22nd, 2024 and the control groups on April 23rd, 2024. In presenting the data, the researcher divided them into two parts; the first is the result of pretest in experimental group and the second is the result of pretest in control group. The result of the score of pretest and posttest of both groups were analyzed and described in the table as follows:

Table 2 The Score of Experimental Group

NO	Initials	Pretest (XI)	Posttest (X2)	Deviation (X2-XI)	Square Deviation (X2-XI)2
1	ALPP	45	60	15	225
2	AM	50	67.5	17.5	306.25
3	DMJ	57.5	77.5	20	400
4	FR	60	80	20	400
5	HF	62.5	75	12.5	156.25
6	MF	52.5	65	12.5	156.25
7	MAMD	35	60	25	625

8	MF	40	62.5	22.5	506.25
9	MAG	37.5	65	27.5	756.25
10	MYAR	60	67.5	7.5	56.25
11	NA	57.5	80	22.5	506.25
12	NNH	57.5	77.5	20	400
13	RF	47.5	72.5	25	625
14	RAL	67.5	80	12.5	156.25
15	SA	50	87.5	37.5	1406.25
16	SSR	42.5	65	22.5	506.25
17	SNH	55	72.5	17.5	306.25
18	TFA	37.5	60	22	484
19	TAH	57.5	70	12.5	156.25
20	WF	37.5	65	27.5	756.25
21	WS	35	60	25	625
22	YYN	60	85	25	625
23	ZDZN	72.5	87.5	15	225
24	WY	52.5	75	22.5	506.25
25	YL	50	70	20	400
26	ZR	62.5	77.5	15	225
27	ZA	35	65	30	900
Total Score		1377.5	1930	552	12396.5
Mean Score		51.01852	71.48148	20.44	459.12

By looking at the table above, it was known that the experimental group pretest score showed that the highest score in the experimental group was 72.5 consisting of 1 student, and the lowest score was 35 consisting of 3 students with a mean score of 51.01. Then, the posttest results for the highest score was 87.5 consisting of 1 student and the lowest score was 60 consisting of 4 students with a mean score of 71.48.

The table above also displayed the results of the pretest and posttest deviations and squared deviations for the experimental group. where, obtained a deviation result of 552 with a mean score of 20.44 and a square deviation result of 12396.5 with a mean score of 459.12.

Table 3 The Score of Control Group

NO	Initials	Pretest (XI)	Posttest (X2)	Deviation (X2-XI)	Square Deviation (X2-XI)2
1	AS	47.5	57.5	10	100
2	DA	52.5	60	7.5	56.25
3	FH	65	72.5	7.5	56.25
4	HR	45	57.5	12.5	156.25
5	MNS	52.5	60	7.5	56.25
6	MEA	45	52.5	7.5	56.25
7	MF	47.5	52.5	5	25
8	MRAH	47.5	55	7.5	56.25
9	MAR	52.5	65	12.5	156.25
10	MDA	47.5	55	7.5	56.25

11	RJJW	50	65	15	225
12	MR	52.5	62.5	10	100
13	RA	47.5	55	7.5	56.25
14	RAH	47.5	52.5	5	25
15	ARN	50	62.5	12.5	156.25
16	AAS	52.5	57.5	5	25
17	DN	57.5	65	7.5	56.25
18	DR	45	57.5	12.5	156.25
19	FA	52.5	62.5	10	100
20	GNZ	60	67.5	7.5	56.25
21	HQ	50	62.5	12.5	156.25
22	IR	55	62.5	7.5	56.25
23	NR	55	65	10	100
24	PA	67.5	75	7.5	56.25
25	PAA	52.5	65	12.5	156.25
26	SS	70	82.5	12.5	156.25
27	PCM	65	75	10	100
Total Score		1432.5	1682.5	250	2512.5
Mean Score		53.0555	62.31481	9.25	93.05

By looking at the table above, it was clear that the control class pretest score showed that the highest score in the control group was 70 consisting of 1 student, and the lowest score was 45 consisting of 3 students with a mean score of 53.05. Then, the posttest results for the highest score was 82.5 consisting of 1 student and the lowest score was 52.5 consisting of 3 students with a mean score of 62.31.

The table above also displayed the results of the pretest and posttest deviations and squared deviations for the control group. Where, obtained a deviation result of 250 with a mean score of 9.25 and a square deviation result of 2512.5 with a mean score of 93.05.

After getting the deviation and square deviation of both experimental and control groups, the researcher calculated the mean deviation of both the groups by using proposed by Arikunto (2013):

$$Mx = \frac{\sum x}{N} = \frac{552}{27} = 20.44$$

$$My = \frac{\sum y}{N} = \frac{250}{27} = 9.25$$

Thus, the mean deviation of the experimental group was 20.44 and the mean deviation of control group was 9.25. Furthermore, the researcher counted the sum of square deviation both of experimental and control groups using the formula proposed by Arikunto (2013) as follows:

1. Experimental Group:

$$\sum x^2 = \sum x^2 - \frac{(\sum x)^2}{N}$$

2. Control Group:

$$\sum y^2 = \sum y^2 - \frac{(\sum y)^2}{N}$$

$$\sum x^2 = 12396.5 - \frac{(552)^2}{27} \qquad\qquad \sum y^2 = 2512.5 - \frac{(250)^2}{27}$$

$$\sum x^2 = 12396.5 - \frac{304704}{27} \qquad\qquad \sum y^2 = 2512.5 - \frac{62500}{27}$$

$$\sum x^2 = 12396.5 - 11285.3 \qquad\qquad \sum y^2 = 2512.5 - 2314.8$$

$$\sum x^2 = 1111.2 \qquad\qquad\qquad \sum y^2 = 197.7$$

To find out the significant difference in the implementation of authentic materials for the experimental group to improve student's reading comprehension, the researcher calculated $t_{counted}$ proposed by Arikunto (2013) as follows:

$$t = \frac{Mx - My}{\sqrt{\left(\frac{\sum x^2 + \sum y^2}{N_x + N_y - 2}\right)\left(\frac{1}{N_x}\right) + \left(\frac{1}{N_y}\right)}}$$

$$t = \frac{20.44 - 9.25}{\sqrt{\left(\frac{1111.2 + 197.7}{27 + 27 - 2}\right)\left(\frac{1}{27}\right) + \left(\frac{1}{27}\right)}}$$

$$t = \frac{11.19}{\sqrt{\left(\frac{1308.9}{52}\right)(0.07)}}$$

$$t = \frac{11.19}{\sqrt{(25.17)(0.07)}}$$

$$t = \frac{11.19}{\sqrt{1.7619}}$$

$$t = \frac{11.19}{1.32}$$

$$t = 8.47$$

After carrying out calculations to find out whether authentic materials is effective or not in improving reading comprehension in the experimental group, it was found that the calculated $t_{counted}$ was 8.47.

Testing Hypothesis

In order to prove that the hypothesis is accepted or rejected, the researcher used t_{table} formula. If the $t_{counted}$ is higher than $t_{table,}$ it means that, the alternative hypothesis (H_1) of this research is accepted. In other words, the use of authentic materials is effective to improve students' reading comprehension of the eighth grade students of SMP Negeri 5 Palu, especially in reading narrative text. Otherwise, if the $t_{counted}$ is lower than $t_{table,}$ it means the alternative hypothesis (H_1) of this research is rejected or there is no significant influence to the students' achievement in reading comprehension. In measuring whether the $t_{counted}$ is higher than t_{table} or not, the researcher measured the t_{table} by applying the degree of freedom (df) = Nx+Ny-2 = 27+27-2=52 with the level of significance 0.05 for two-tailed test.

The t_{table} value is obtained with the following way:

Degree of freedom   = Nx+Ny-2
$\qquad\qquad\qquad\quad$ = 27+27-2
$\qquad\qquad\qquad\quad$ = 52
Level of significance = 0.05

Unfortunately, there is no value 52 in the t_{table} list, so that the researcher used the interpolation computing in order to find out the t_{table} presented as suggested by Gujarati (2003) as follows:

$$I = \frac{a}{b} \times c$$

Where:

a = The subtraction of the degree of freesom is obtained from the number of students in sample and the degree of freedom whose figure precedes right before the degree of freedom is obtained on the table of critical values of the students, distribution.

b = The subtraction of two degree of freedom whose figure precedes and comes after the degree of freedom on the table of criical values of the students' distribution.

c = The valuessubtraction of the degree of freedom in b.

Degree of freedom: df = Nx + Ny – 2
$\qquad\qquad\qquad\qquad\quad$ df = 27 + 27 – 2
$\qquad\qquad\qquad\qquad\quad$ df = 52 (between 40 and 60)
$\:$Level of significance = 0.05
$\qquad\qquad\qquad\qquad\quad$ df = 40 = 2.021
$\qquad\qquad\qquad\qquad\quad$ df = 60 = 2.000
a = 60 – 52 = 8
b = 60 – 40 = 20
c = 2.021 – 2.000 = 0.021

$$I = \frac{a}{b} \times c$$

$$I = \frac{8}{20} \times 0.021$$

$$I = \frac{0.168}{20}$$

I = 0.0084
df (52) = 2.021 – 0.0084
$\qquad\quad$ = 2.0126

By looking at the data and based on the T critical value of table, the researcher obtained that the value of $t_{counted}$ was 8.47 and the value of t_{table} was 2.0126. Hence, the result showed that the value of $t_{counted}$ was greater than the value of t_{table} (8.47>2.0126). It means that the alternative hypothesis (H_1) was accepted. In other words, the use of authentic materials was effective in improving reading comprehension of the eighth grade students of SMP Negeri 5 Palu.

Discussion

The objective of this research was to find out whether or not the use of authentic materials can be effective in improving the reading comprehension of the eighth grade

students of SMP Negeri 5 Palu. In conducting this research, the researcher focused on using authentic materials to help students understand the main idea and find specific information in narrative text. The instruments that were used to collect the data in this research was test. The test was given to students and consisted of 25 items, 20 items for multiple choice with 3 options, and 5 items for reading comprehension tests, with an allotted 50 minutes.

Based on the research that has been conducted, the results of this study state that authentic materials is effective in improving reading comprehension. Students become more active when in class; for example, they ask more questions about the story. Using authentic materials that suit students' needs can increase students' mastery of the material. They can determine the main idea and understand specific information in the story because authentic materials provide everyday language, making it easier for them to remember the meaning of each word. According to Rings in Vandergrift (1999), authentic materials can even be used starting in the first week of the first semester; however, the material must relate to the learner's life experiences and contain appropriate features that enhance understanding at this level.

Authentic materials can also improve students' reading comprehension through students' vocabulary mastery. Authentic materials provide new vocabulary so that they can master a lot of vocabulary. Bacon & Finneman as quoted by Berardo (2006) suggest that the using of authentic materials has a great influence on developing reading comprehension by presenting new words and expressions to students. Selecting the right material will support the learning process and increase students' reading comprehension through their mastery of vocabulary.

Apart from that, authentic materials help students increase their learning motivation because of the attractive appearance of authentic materials. Authentic materials contain pictures in each story so that it can build students' initial knowledge and curiosity in reading the story. This is similar to what Kilickaya stated in Akbari and Razavi (2015) who stated that the use of authentic texts is one way to increase students' motivation to learn a language because students feel they are learning the real language.

The use of authentic materials is effective in improving students' reading comprehension, making it easier for them to understand the story. The findings of this research are similar to previous research conducted by Khasanah et. al. (2023) which found that teaching reading comprehension using authentic materials can improve students' reading comprehension. Then, a study conducted by Assiddiq (2019), found that the use of authentic materials was more effective than pedagogic materials in developing reading comprehension achievement. This is because there are several positive influences of authentic materials on improving reading comprehension, namely motivation for learning, providing information, and exposure to real language. This was proven by the improvement in students' reading comprehension after being given treatment using authentic materials.

In conclusion, the use of authentic materials has a positive effect in improving students' reading comprehension by understanding specific information and determining main ideas, vocabulary, and learning motivation. Students are exposed to real discourse and acquire new vocabulary from authentic materials so that they can understand the information in the story and determine the main idea in the story. In class, students actively ask and discuss new vocabulary because authentic materials provide exposure to real language and are constantly updated. So authentic materials is effective in improving students' reading comprehension of SMP Negeri 5 Palu.

Conclusion

Based on the result of data analysis, the researcher concludes that the implementation of authentic materials is effective in improving reading comprehension of the eighth grade students of SMP Negeri 5 Palu. It can be proved by comparing $t_{counted}$ and t_{table} where the researcher found that $t_{counted}$ (8.47) is higher than t_{table} (2.0126). Another proof can be seen from the result of the students' mean scores of the pretest and posttest of the experimental group. There is a difference of 20.47 between the pretest to posttest mean scores for the experimental group, while the control group only had a difference of 9.26. Therefore, there is a significant difference in the mean between the pretest and the posttest of the experimental group. The research results showed that there was a significant increase in the main score of the experimental group after being given treatment.

Acknowledgment

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