THE EFFECT OF TWIST GAME USAGE FOR STUDENTS' VOCABULARY MASTERY AT TENTH GRADE STUDENTS OF SMA NEGERI 1 SIBORONGBORONG IN ACADEMIC YEAR 2021/2022

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Abstract

The purpose of this research is to find the effect of twist game usage for improving students' vocabulary mastery. Text Twist Game is a scrambling game, in which we have to arrange words from three to six or seven letter in order to be able to create English word. The sample of this research was class X IPA 1 and X IPA 2 of SMA Negeri 1 Siborongborong, consisted of 36 students for each class. This research was conducted by using experimental research design. The data was taken from test (pre-test and post-test). The result shows that the post-test result was higher than pre-test result in experimental class, while in control class the mean score did not having a significant increasing score. The lowest score in pre-test was 60 and the highest score was 95 with the mean 78.47, while in post-test, the lowest score was 65 and the highest score was 100 with the mean 89,33. From the result of the test, it can be concluded that using of Text Twist game can improve students' vocabulary mastery. The researcher analyzed the data quantitatively by using inferential statistics SPSS 21.The students' result of the mean score in the pretest of pre-experimental was lowest than themean score in the posttest (78.47<89.33). The researcher found that the p Value was 0.00 andthe alpha was 0.05, therefore p<α (0.00<0.05). The researcher concluded that null hypothesis(H_0) was rejected and alternative was hypothesis (H_a) was accepted. It means that text twistgame canimprovethe students'vocabulary.

Keywords: *effect; vocabulary mastery, twist game*

Introduction

In learning a foreign language, vocabulary plays the most important role. It is one of the important aspects, which link to the four language skill; listening, speaking, reading and writing. Besides that, vocabulary is a basis to communicate well in foreign language. Therefore, if the students want to communicate successfully, they have to acquire an adequate number of words and should know how to use them accurately.

Vocabulary is not easy to be increased without a proper way of how to build it up. In this case, English teacher has an important role to stimulate students to improve their vocabulary. The conventional technique used in teaching vocabulary, such as memorization technique, did not stimulate the students to build up their vocabulary because this technique is only emphasize on memorizing words which is many cases made the students feel bored.

Looking back what was happening when the writer was doing teacher's training program (PPL), it was found that the progress of the students' vocabulary mastery did not show any significant improvement. In order to solve the problem above, teachers have to find out the most suitable teaching and learning technique for their students.

The Problem of the Study

Based on the background above, a research problem is formulated as follows: "Does twist game usage affect the students' vocabulary mastery improvement at tenth grade of SMA NEGERI 1 Siborongborong"?

The Objective of the Study

Based on the problem of the study, the objective of the study is focused on finding out

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the effect of twist game usage for the students' vocabulary mastery.

The Scope of the Study

There are some media in teaching language, such as songs, games, films, pictures and etc. In this study, the writer focus on effect of using game (test twist game) in vocabulary, especially in noun and verb for tenth grade students of SMA NEGERI 1 Siborongborong.

The Significance of the Study

The significant of the study will be useful for

1. The teacher; it will be a valuable information to increasing the students' vocabulary.
2. The students; by reading this study, they will realize that increasing vocabulary can be achieved by some games.
3. The readers who want to enrich their knowledge about twist game.

REVIEW OF LITERATURE

The Definition of Vocabulary

Vocabulary is the total number of words that are needed to communicate ideas and express the speakers' meaning. So, if someone has more vocabularies, they will easily communicate with other people. Vocabulary is one of the language aspects which shall be learned. Learning vocabulary is important because we will be able to speak, listen and write well. Thus, we have to know vocabulary first.

Text Twist Game

According to Blanka Frydrychova Klimova (2014) game is a natural means for children to understand the world around them. Therefore, it should be part and parcel of their learning, including the learning of foreign languages. Also, according to Jay (2006), text twist is simply a word scrambling game, in which you have to assemble words ranging from three to six letters. Game is a way to help students not only enjoy and entertain with the language they learn, but also practice it incidentally. Based on the definition above, it concludes that text twist game is an activity in which learners play and a word scrambling game, in which you have to assemble words ranging from three to six letters.

Procedure of Text Twist Game

The procedures of teaching vocabulary through text twist game based on Steven J. Brams (2010) are as follow:

a. Divide the class into four or five teams.
b. Write the assemble letters on the whiteboard, 4-7 letters.
c. Choose a student from one team and ask to show the students to write the word on the board.
d. If it is correct, give his/her team one point.
e. Each team translates the words in the book and makes a sentence
f. The students may open the dictionary.
g. After the students finish making a sentence, the students collected from the teacher.

ResearchHypotheses

H_0(Nullhypothesis):Thereisnosignificantdifferencebetweenthestudents'scoreinvocabulary by using twist game. H_a (Alternative Hypothesis): There is significant difference between thestudents' score invocabulary by using twist game.

Research design

This study was a quantitative research. It was categorized as an experimental research design. The writer has conducted the research in two different classes (experimental class and control class). In the experimental class, the writer has given a treatment by using twist game, while in the control class, the writer taught vocabulary without using twist game. The treatment that has been given in experimental class was purposed to compare whether it gives more significant effect on the students' vocabulary.

Population and Sample

Population

Population is all the subjects of the research (Arikunto, 2006:130). In Encyclopedia of Educational Evaluation

said that a population is a set (or collection) of all elements processing one or more attributes of interest.

The population in this research was tenth grade science students of SMA Negeri 1 Siborongborong. The number of population was 360 students. It consisted of ten classes.

Sample

Sample is a part of population (Arikunto, 2006:131). In this research, with the whole population are 360 students that consisted of 10 classes, the writer used random sampling to take the samples. In taking the class, the writer used lottery technique. The writer called the chairman of each class. They were asked to take a slip paper that has been prepared by the writer. In one of the paper, the writer has given number 1, and the other paper was blank. So, who take the numbered paper, would be the class that used as the sample. And the sample

Technique of Collecting Data

In this study, the writer has conducted pre-test and post-test to collect the data:

1. Pre-test
   Pre-test was used to ensure the equivalency of the controlled and the experimental class before conducting the treatment.
2. Post-test
   Post-test was used to see if there were any statistically significant differences on students' vocabulary after treatment.

Technique of Data Analysis

The technique that has been used to describe of each research variable by showed descriptive statistics analysis:

a) Scoring the Students by using the formula

$$score = \frac{correct\ answer}{total\ number\ of\ item} \times 100$$

b) Classifying the score of the students' vocabulary
Classify the score of the students' vocabularies by the following classification.

Score	Category
95 - 100	Excellent
87 - 94	Good
79 - 86	Sufficient
71 - 78	Fair
63 - 70	Low
55 - 62	Poor

c) To calculate the rate percentage of the learners core used the following formula:

$$P = \frac{F}{N} \times 100\ \%$$

Where:
P: percentage
F: frequency
N: total number of sample

d) The formula of the mean score as follow:

$$\bar{X} = \frac{\sum X}{N}$$

Where:
$\bar{X}$ = mean Score
$\sum$x = the sum of the all score
N = total Number of Sample

e) Finding significant difference between the mean score of the pretest and post-test by calculating the value of the test using the following formula:

$$t = \frac{\sqrt{\sum \bar{X} - \frac{(\sum \bar{X})^2}{N-1}}}{N(N-1)}$$

Where:
t = Test of significance
X = Mean score
$\sum$X = the sum of all the score
N = Test of significant.

f) Calculating the mean score, standard deviation and frequency table of the experimental by using SPSS 21.

Data and data analysis

The data of the research was showed to describe the result of data that analyzed statically and tabulating of data. It comprised of the students score in Pre-test and Post-test, classification percentage of students score in Pre-test and Post-test, the mean score and standard deviation of students Pre-test andPost-test.
Table 4.1

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Table of students' Pre-test and Post-test score for experimental class

No	Name	Experimental Class	
		Pre-Test	Post-Test
1	Agave Marpaung	80	90
2	Amanda Maha	85	95
3	Amela Hutauruk	80	95
4	Andrian Manalu	75	90
5	Angelica Sihombing	65	80
6	Aprilia Hutasoit	75	90
7	Bintang Hutasoit	95	95
8	Boas Gideon	95	90
9	Christnauly Sipahutar	85	85
10	Chronica Hutauruk	90	95
11	Cynthia Samosir	90	95
12	Grace Tumanggor	75	95
13	Gracesya Simanjuntak	85	95
14	Hotni Simanjuntak	80	90
15	Inzil Marbun	70	90

Table 4.2
Table of students' Pre-test and Post-test score for control class

No	Name	Control Class	
		Pre-Test	Post-Test
1	Abel Simbolon	75	90
2	Adithya Silaban	95	95
3	Aisa Nababan	80	90
4	Andreas Saragih	95	95
5	Andriano Hutasoit	80	90
6	Anggita Rajagukguk	90	95
7	Astrid Siburian	90	80
8	Christian Simatupang	85	95
9	Dina Nababan	90	95
10	Elia Nababan	95	95
11	Gita Tampubolon	75	75
12	Gledy Silaban	85	95
13	Glory Marbun	90	95
14	Grestasya Silaban	75	95
15	Hanna Sidabutar	90	90
16	Indri Silaban	75	90
17	Inggrid Lubis	90	95
18	Irma Lumbantoruan	75	85
19	Juliana R. Lumbantoruan	60	70
20	Lidya Hutagalung	90	95
21	Martin Simanjuntak	85	90
22	Michael Pasaribu	65	80
23	Mikael Pasaribu	80	95
24	Moses Nababan	55	70
25	Nicolas Panggabean	95	95
26	Oersted Siburian	85	90
27	Randi Hutasoit	75	80
28	Ruth Sena D. Lumbantoruan	90	95
29	Solagracia Batubara	80	80
30	Sri Aisah Lumbantoruan	75	80
31	Surung Manalu	95	95
32	Tio Silaban	75	85
33	Virjenia Hutasoit	90	95
34	Yesika Hutasoit	95	95
35	Yogi Panjaitan	75	80
36	Yuneyka Rajagukguk	70	70
Total		2965	3180

Data analysis

The Rate Percentage of the Students'Pre-test

Score	Classification	Experimental Class		Control Class	
		Pre-test	%	Pre-test	%
95 - 100	Excellent	2	6%	6	17 %
87 - 94	Good	5	14%	9	25 %
79 - 86	Sufficient	13	36%	8	22 %
71 - 78	Fair	8	22%	9	25 %
63 - 70	Low	6	17%	2	6%
55 - 62	Poor	2	6%	2	6%
Total		**36**	**100 %**	**36**	**100 %**

Table of students' mean score inPre-test

Pre-Test Valid N (List-Wise)	N	Range Statistic		Mean	Std. Deviation
		Minimum	Maximum		
Experimental Class	36	60,0	95,0	78,47	9.398
Control Class	36	55,0	95,0	82,36	10.315

Table 4.1.4 the Rate Percentage Score of the Students' Post-test

Score	Classification	Experimental Class		Control Class	
		Post-test	%	Post-test	%
95 - 100	Excellent	14	39%	17	47 %
87 - 94	Good	12	33%	7	19 %
79 - 86	Sufficient	7	19%	8	22 %
71 - 78	Fair	2	6%	1	3%
63 - 70	Low	1	3%	3	8%
55 - 62	Poor	0	0%	0	0%
Total		**36**	**100 %**	**36**	**100 %**

Table 4.1.5 the Mean Score and Standard Deviation of Students' Post-test

Pre-Test Valid N (List-Wise)	N	Range Statistic		Mean	Std. Deviation
		Minimum	Maximum		
Experimental Class	36	65,0	100	89,33	7,211
Control Class	36	70,0	95,0	88,33	8.281

Table of the mean score of the students' Post-test

Descriptive Statistics

	N	Range	Minimum	Maximum	Sum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
pretest experimental	36	35	60	95	2825	78.47	1.5661	9.398	88.313
posttest experimental	36	35	65	100	3216	89.33	1.2021	7.211	52.000
pretest control	36	40	55	95	2965	82.36	1.7199	10.315	106.409
posttest control	36	25	70	95	3180	88.33	1.380	8.281	68.571

Valid N (list wise)	36								

Normality test

	class	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
score	pre test experimental	.134	36	.103	.954	36	.143
	post test experimental	.259	36	.000	.837	36	.000
	pre test control	.187	36	.003	.907	36	.005
	post test control	.262	36	.000	.780	36	.000

a. Lilliefors Significance Correction

Normality test was used to find out if the data contributed normally or no. From the table above, it shows that the data was not contributed normally because the value of Sig. was less than 0.05 (Sig. < 0.05)

Homogeneity test

		Levene Statistic	df1	df2	Sig.
PreTest	Based on Mean	.710	1	70	.402
	Based on Median	.595	1	70	.443
	Based on Median and with adjusted df	.595	1	69.717	.443
	Based on trimmed mean	.661	1	70	.419
PostTest	Based on Mean	2.572	1	70	.113
	Based on Median	1.413	1	70	.239
	Based on Median and with adjusted df	1.413	1	69.947	.239
	Based on trimmed mean	2.372	1	70	.128

Homogeneity test was purposed to determine if two or more populations (or subgroups of a population) have the same distribution of a single categorical variable. In simple terms, the main purpose of the homogeneity test is to ensure that the number of populations to be measured is homogenous. And from the table above, it shows that the population is homogenous (Sig. based on mean > 0.05).

Wilcoxon test

Test Statistics[a]

	post test experimental - pre test experimental	post test control - pre test control
Z	-4.909[b]	-4.103[b]
Asymp. Sig. (2-tailed)	.000	.000

a. Wilcoxon Signed Ranks Test
b. Based on negative ranks.

Wilcoxon signed rank test is a non-parametric statistically test that compares two paired groups. From the table above, the Asymp. Sig. (2-tailed) was less than 0.05 (Asymp. Sig. (2-tailed) < 0.05), it meant that the H_a (alternative hypothesis) is accepted and H_0 (null hypothesis) is rejected.

Test of Hypothesis

In order to answer the statement of the problem as stated in chapter I and to answer the hypothesis as stated in chapter II, the researcher applies test of significance. After knowing that the data both from pretest and posttest have normal distribution, he used t-test as the formula to do test of significance. Below is the complete computation of test of significance.

$$t_{obtained} = \frac{\overline{X_1} - \overline{X_2}}{\sqrt{\frac{(n1-1)S_1^2+(n2-1)S_2^2}{n1+n2-2}\left(\frac{1}{n1}+\frac{1}{n2}\right)}}$$

$$t_{obtained} = \frac{89.33 - 88.33}{\sqrt{\frac{(35)31.624+(35)48.024}{36+36-2}\left(\frac{1}{36}+\frac{1}{36}\right)}}$$

$$= \frac{1}{\sqrt{\frac{1806.833+1680.83}{70}(0.056)}}$$

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$$= \frac{1}{\sqrt{\frac{3486.67}{70}(0.056)}}$$
$$= \frac{1}{\sqrt{2.77}}$$
$$= \frac{1}{1.66}$$
$$t_{obtained} = 0.6024$$
$$t_{table} = 1.99444$$

Then, to decide which hypothesis was accepted based on the calculation above, the writer took the certainty proposed by Sugiyono. According to Sugiyono (2013), if the value of $t_{obtained}$ is lower than t_{table} ($t_{obtained} < t_{table}$), the null hypothesis will be rejected and the alternative hypothesis will be accepted. From the theory above, it can be seen that the $t_{obtained}$ is lower than t_{table} (0.6024 < 1.9944). From the calculation above, it can be said that the null hypothesis (H_0) was rejected and the alternative hypothesis (H_a) was accepted and there is a significant difference before and after text twist game applied at the tenth grade students of SMA NEGERI 1 SIBORONGBORONG year of 2021/2022.

CONCLUSIONS AND SUGGESTIONS

Conclusions

Based on the findings, data analysis, and discussion in the previous chapter, the writer concludes in following: having implemented the treatments by using text twist game in experimental, the writer concluded that text twist game improves students` vocabulary at the tenth grade of SMA N 1 SIBORONGBORONG. Text twist game was effective to use in the learning and teaching process because it made students involve directly and also made students active in learning. It could be proven by the students` result of the mean score in the Pre-test of experimental was 78.47 and the mean score of the students in the Post-test was 89.33. After giving treatment to the students and based on the result of data analysisorthefindinginchapterIV,thewriterfoundthatthe*p*-Valuewas 0.00 and the alpha was 0.05, therefore $p<\alpha$ (0.00<0.05). It evidenced that the alternative hypothesis (H_a) is accepted and the null hypothesis (H_0) is rejected.

Suggestions

Regarding the teaching vocabulary by applying text twist game, the writer gives some suggestion for the local government, teacher and students as follow:

Suggestion for theTeacher

1. The teachers can apply text twist game to teach vocabulary to the students.
2. The teachers should be creative and innovative to use various strategies in the English teaching-learning process to upgrade the students' vocabulary.

Suggestion for the students

1. The students should be more active in learning process having applied text twistgame.
2. The students should learn more about how to write the correct vocabulary based on itspronunciation.

Suggestion for the Next Writer

1. The next writers can use this research as anadditional reference for further relevant research certainly dealing with vocabulary. The writer also hopes that this research can give more information about the use of Text Twist game in teaching English vocabulary.

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