THE EFFECT OF USING WORDS CHAIN GAME IN VOCABULARY MASTERY FOR EIGHTH GRADE JUNIOR HIGH SCHOOL 2 KOTAGAJAH STUDENTS

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ABSTRACT

The aim of this research is to find out the effect and the significant difference of words chain game for students' vocabulary mastery at Junior High School 2 Kotagajah. Word chain game is a game which the player uses the last letter of the preceding word to build a new word. This research used quasi experimental design. The subjects of this research are the eighth-grade students at Junior High School 2 Kotagajah academic year 2022. The result of data analysis indicates that value of t obtained (to) is higher than the value of t table (2.875>2.042). Moreover, the second data indicates t obtained (to) is higher than the value of t table (3.402>2.042). The conclusion is teaching English vocabulary using word chain game is effective to increase students' vocabulary mastery and gives a significant difference.

Keywords: Words Chain Game, Junior High School, Vocabulary

1) INTRODUCTION

Mastery of English vocabulary is still a difficult thing for junior high school students especially during the pandemic, it is one of the most significant outside factors impeding student learning in the classroom. One of several components of the English language is vocabulary, that is essential for mastering all English skills such as listening, reading, speaking, and writing. Vocabulary is part of a language that underlies the understanding of the language (Mandasari et al, 2020). (Heibert et al, 2005) the intellect of word definitions is referred to as vocabulary. Vocabulary is words that children understand both in terms of meaning and use. (Brown, 2007) also state that the only alphabetical ordering process implicated is vocabulary.

When the researcher did the pra-survey, the researcher discovered that more over half of when the teacher was teaching, the students in the class did not contribute, they preferred to

converse with their classmates. As a result, their enthusiasm for studying English remains low. From the observations, the researcher found that there were 10 classes for each grade level, and 31 students in each class. The school applies the odd-even absent system in face-to-face learning. In addition, the researchers also conducted a pre-survey of students' scores on English vocabulary with the following results:

Table 1. Pra Survey Data English Vocabulary Score of Eighth Grade Junior High School 2 Kotagajah Students

No	Score	Classification	Students	Percentage
1	81 - 100	Excellent	41	13%
2	61 - 80	Good	73	23%
3	41 - 60	Fair	132	43%
4	21 - 40	Poor	51	16%
5	10 - 20	Failed	13	5%
	Total		310	100%

Source: The English teacher of eighth grade Junior High School 2 Kotagajah

It can be explained that 13% of students' vocabulary scores are categorized as excellent, 23% are categorized as good, 43% are categorized as fair, 16% are categorized as poor and 5% of students' scores are categorized as failed. According to the relevant data description, the typical eighth-grade student falls into the high category in the fair classification for understanding English vocabulary. This proves that there is an issue with English learning in the classroom.

It is most likely solvable with the right teaching style. The researcher chooses for a vocabulary game as a teaching technique. A word chain game is a game that is used to educate and acquire vocabulary. "Someone says a word, and the next person needs to say a word that starts with the last letter of the previous word," (Adachitoka, 2015). The word chain game, according to (Firmansyah and Adi, 2015), a well-known game that has long been used in language instruction classes. Meanwhile, according to Robico in (Gultom, 2018), a popular English game is the word chain game. Based on these perspectives, it is possible to conclude that the word chain game is one of the games that teachers can use to help students learn a language.

Based on the problems described, the purpose of the researcher to conduct this study are to find out:

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a. Whether there is an effect of using Words Chain Game to the English vocabulary mastery for eighth grade junior high school 2 Kotagajah students.

b. The significant differences when using the Words Chain Game to the English vocabulary mastery for eighth grade junior high school 2 Kotagajah students.

2) METHODS

According to (Creswell, 2009), research design is a set of steps for gathering and analyzing data in order to better understand a topic or issue. A research method is defined as the means through which the research's goal is accomplished. The design of this research will be Quasi Experimental Design. The basic purpose of the experimental design is to test and know the impact of the treatment results done in the final result and organized all other factors that influence it (Creswell, 2009).

In this study, one group designated as the experimental class, while the other designated as the controlled class. The researcher used the Words Chain Game as a teaching technique in the experimental class, while the conventional teaching technique used in the controlled class. The variables in a researcher's study are the dependent variable and the independent variable. Dependent Variable/(y) is vocabulary mastery. Independent Variables/(x) is the words chain game.

Therefore, the population of this study was eighth grade students in Junior High School 2 Kotagajah academic year 2021/2022. There are 10 classes and 31 students in each class. Total of the population are 310 students. The researcher obtained the 8B class as an experimental group and the 8D class as a control group using the Cluster Random Sampling sampling method. 8D consist of 31 students acting as the control class and 8B acting as the experimental class also consist of 31 students.

In this study, the instrument used is test form. (Arikunto, 2006) states that the examination consists of a series of research question, manual techniques, and other activities used to assess an individual's or group's skills, intelligence, knowledge, abilities, or talents. The researcher will conduct a pretest and a posttest. Pretest and posttest are types of formative evaluation that are used to assess the progress or development of student learning. A pre-test is a test given at the beginning of the learning process, whereas a post-test is given at the end of learning.

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3) RESULT

This section describes the calculation of data from students who have been taught using the word chain game technique and without it. All data obtained were processed using statistical formulas with the SPSS (Statistical Package for Social Science) application.

The Result of Pre-Test

The data description presented includes the mean, standard deviation, range, maximum and minimum scores for each group. Table 2 shows a summary of the data distribution for the pre-test in the experimental and control classes.

Table 2. The Result of Pre-Test in the Experimental Class and Control Class

Data Description		Experimental	Control
Number of cases (N)	Valid	31	31
	Missing	0	0
Mean (M)		54.03	34.19
Std. Deviation (SD)		17.51	11.26
Range		62.50	45.00
Minimum Score		27.50	17.50
Maximum Score		90.00	62.50

From the table the pre-test from experimental class yielded a mean of 54.03 and standard deviation of 17.51. While mean of control class are 34.19 and the standard deviation are 11.26. Futhermore, the maximum score are 90 and the minimum score are 27.50 for the experimental class. For the control class the maximum score are 62.50 and the minimum score are 17.50. Thus, the range are 62.50 for experimental class and 45 for the control one.

To learn more about the data, the researcher used a qualitative category to describe the students' vocabulary mastery in the experimental and control classes. Excellent, good, fair, poor, and failed are the qualitative categories.

Table 3. The Frequency Data Distribution of Pre-Test in Experimental Class

No	Range	Classification	Frequency	Percentage
1	81-100	Excellent	3	10%
2	61-80	Good	7	22%
3	41-60	Fair	13	42%
4	21-40	Poor	8	26%
5	10-20	Failed	-	-
Total			**31**	**100%**

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From the data described in the table above, it can be seen that the total of all students in the experimental class amounted to 31 students. There are 3 students or 10% who get marks in the excellent category, 22% of students are included in the assessment in the good category. It can also be noted that 13 students or 42% were ranked in the fair category and the remaining 8 students or equivalent to 26% fall into the poor category. It can be concluded that the category of scores that are mostly obtained by students is fair.

In addition to the assessment in the experimental class, the researcher also made a table to classify the scores obtained by students in the control class. This data explained the results of the pre-test which used as a comparison with the experimental class.

Table 4. The Frequency Data Distribution of Pre-Test in Control Class

No	Range	Classification	Frequency	Percentage
1	81-100	Excellent	-	-
2	61-80	Good	1	3%
3	41-60	Fair	6	19%
4	21-40	Poor	22	72%
5	10-20	Failed	2	6%
Total			**31**	**100%**

Based on the results in the table above, there are 31 students in the control class. There is one student or 3% who is included in the category of students with a good score. 19% or 6 students are categorized into fair scores, while 22 students or equivalent to 72% of students are categorized as poor, and 2 students or 6% get the failed score category. It can be concluded from the table above that the most students in the control class get a poor score category with a percentage of 72%.

The Result of Post-Test

This section explains about the standard deviation, mean, range, minimum and maximum value obtained in the post test of students in the experimental class and control class.

Table 5. The Result of Post-Test in the Experimental Class and Control Class

Data Description		Experiment	Control
Number of cases (N)	Valid	31	31
	Missing	0	0
Mean (M)		60.64	45.88
Std. Deviation (SD)		18.81	15.14
Range		70.00	62.50

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Minimum	22.50	17.50
Maximum	92.50	80.00

Analyzing the data above, it is possible to conclude that for the same 31 cases in the experimental and control classes, the mean in the experimental class is 60.64, while the data for the control class is 45.88. The experimental class's standard deviation and range were 18.81 and 70, respectively, while the control class's were 15.14 and 62.50. The experimental class has a minimum value of 22.50, while the control class has a minimum value of 17.50. Furthermore, the maximum value in the experimental class is 92.50, while the maximum value in the control class is 80.

Table 6 explains the specific differences between the data obtained by the control class and the experimental class, as well as the effect produced by the word chain game treatment on the experimental class.

Table 6. The Frequency Data Distribution of Post-Test in Experiment Class

No	Range	Classification	Frequency	Percentage
1	81-100	Excellent	4	13%
2	61-80	Good	13	42%
3	41-60	Fair	8	26%
4	21-40	Poor	6	19%
5	10-20	Failed	-	-
	Total		**31**	**100%**

From the data above, it can be seen that the highest category comes from good classification with a percentage of 42% or 13 students. Students who are included in the excellent category are 4 students or 13%, while 8 students or 26% are included in the fair category. Then 6 students or equivalent of 19% were included in the poor category. The total amount is equivalent to 31 students or 100%.

In addition to calculating the post-test scores from the experimental class, the researcher also calculated the post-test scores from the control class. The data is described in the table 7

Table 7. The Frequency Data Distribution of Post-Test in Control Class

No	Range	Classification	Frequency	Percentage
1	81-100	Excellent	-	-
2	61-80	Good	5	17%
3	41-60	Fair	15	48%

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4	21-40	Poor	10	32%
5	10-20	Failed	1	3%
		Total	**31**	**100%**

Analyzing the results of the table above, out of a total of 31 students, 3% or 1 student was included in the failed category. 10 or 32% of students get a poor rating, 15 students or the equivalent of 48% get a fair rating, and 5 students with the highest score or 17% fall into the good category. Therefore, it can be concluded that the most common type of student score category is fair with a percentage of 48% with the range 41-60.

The final step in this research is hypothesis testing, which is used to determine whether or not the hypothesis is accepted. However, before analyzing the hypothesis, it is preferable to compare the mean score in the pre and post-test in the pre-experimental class.
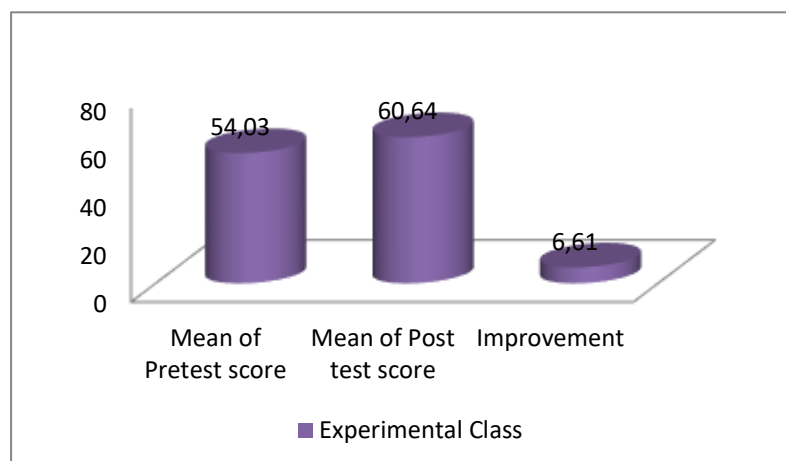
Table 8. The Score of Mean Difference of Vocabulary Mastery

Groups	Number of Participant	Mean of Pre-test Score	Mean of Post-test score	Mean Difference
Experiment	31	54.03	60.64	6,61

The mean between the pre and post-test was different, according to the interpretation of the data description in Table 8. The mean post-test score is higher than the mean pre-test score (60.64>54.03). It means that using a word chain game to teach vocabulary is effective.

The diagram below can help you better understand the improvement of students' English vocabulary mastery in the experimental class:

Figure 1. The Improvement of Pre-Test and Post Test Score

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First Hypothesis

a. Alternative Hypothesis (Ha): There are an effect of using words chain game to the mastery of English vocabulary of eighth grade junior high school students.

b. Null Hypothesis (Ho): There are no effect of using words chain game to the mastery of English vocabulary of eighth grade junior high school students.

The hypothesis will be accepted if the value of t obtained was greater than the value of t-table at the meaningful scale of 0.05. The hypothesis will rejected if the calculated value obtained is less than t-table at the meaningful scale of 0.05. The following table summarizes the entire calculation:

Table 9. The Result of T-Test Paired Samples Test

		Paired Differences					t	df	Sig.
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				(2-tailed)
					Lower	Upper			
Pair 1	Post_Exp - Pre_Exp	6.61290	12.80541	2.29992	1.91584	11.30997	2.875	30	.007

The data analysis revealed that at the significance levels 0.05 and 0, the value of t obtained (2.875) was greater than the value of t table (2.042). (0.007, and lower than 0.05). As the conclusion, the hypothesis test (Ha) is accepted. It means that playing the words chain game has an effect on eighth grade junior high school students' mastery of English vocabulary.

Second Hypothesis

a. Alternative Hypothesis (Ha): There are an significance of using words chain game to the mastery of English vocabulary of eighth grade junior high school students.

b. Null Hypothesis (Ho): There are no significance of using words chain game to the mastery of English vocabulary of eighth grade junior high school students.

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The result of the hypothesis testing could be seen in the following table.

Table 10. The Result of T-Test, Independent Samples Test

		Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Post-Test	Equal variances assumed	2.579	.114	3.402	60	.001	14.75806	4.33868	6.07941	23.43672
	Equal variances not assumed			3.402	57.377	.001	14.75806	4.33868	6.07125	23.44488

Table shows that at the significance level of 0.05, the value of t-obtained (3.402) was greater than the value of t table (2.042), and the significance (0.001) was less than 0.05. As a side effect, the alternative hypothesis (Ha) is accepted. It means that using the words chain game to improve eighth grade junior high school students' English vocabulary mastery makes a significant difference.

4) DISCUSSION

The researcher discussed the treatment's effectiveness and test results in this section. The objective of this research is to see if word chain games have any effect on eighth-grade students' English vocabulary mastery. The subject of the research is the eighth grade students of Junior High School 2 Kotagajah in the academic year 2022/2023. The sample consists of two classes: 31 students for the experimental group and 31 students for the control group.

The researcher must have explained the rules to the students prior to the treatment being used in the experimental class. As a result, the students can understand clearly. The researcher determined the topic that corresponds to the current subject after the students learned the rules of the game. The students then begin to mention vocabulary related to the topic.

Word chain game definition is a game which the player uses the last letter of the preceding word to build a new word. As a result, when playing this game, each player must say each word by word. In other words, they were attempting to recall all of their previously

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learned vocabulary. There are benefits when using this technique in English lessons, especially in grade eight junior high school. First, students pay more attention to the teacher when explaining, because the technique used by the teacher attracts students' attention. Second, individual students are able to show their English vocabulary skills. Third, students are actively able to help each other when a friend cannot mention a vocabulary.

After completing the pre-test, the average result of students in the experimental class was 54.03 and in the control class was 34.19. Then treatment was carried out for the experimental class using a word chain game. while the control class without it. The researcher has done a post test and calculated the students average score for the experimental class was 60.64, and for the control class was 45.88. There was an increase in both classes, even though after the data was entered into SPSS, the score for experimental class still resulted in a significant increase. From the score in a experimental class, the result showed that the post test score is the better and higher than the pre-test score. It indicates that there is improvement of students score before and after using words chain game.

Consequently, hypothesis testing on the first hypothesis demonstrates that using a word chain game to teach English vocabulary increases students' vocabulary mastery. The mean pre-test score in the experimental group is significantly higher than the mean post-test score. The obtained (to) value is then greater than the table value (2.875>2.042). Even so, the hypothesis testing on the second hypothesis indicates that the experimental group has a significant score after using the words chain game to master English vocabulary. The value of t obtained (to) is higher than the value of t table (3.402>2.042).

It can be concluded that the grade eight students of junior high school got good achievements in mastering English vocabulary after using the word chain game technique. Therefore, teaching English vocabulary using this technique is effective in influencing students in mastering vocabulary.

5) CONCLUSION

The results show that the experimental group had a higher increasing line of vocabulary mastery after treatment. According to the pre-test score outcome, the participants in the experimental group and control group have average scores of 54.03 and 34.19. On the post

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test, the experimental group outperforms the control group, with average scores of 60.64 for the experimental group and 45.88 for the control group.

The data analysis for the first hypothesis revealed that at the significance levels 0.05 and 0, the value of t obtained (2.875) was greater than that of t table (2.042). (0.007, and lower than 0.05). As the conclusion, the hypothesis test (Ha) is accepted. It means that playing the words chain game has an effect on eighth grade junior high school students' mastery of English vocabulary.

For the second hypothesis at the significance level of 0.05, the value of t-obtained (3.402) was greater than the value of t table (2.042), and the significance (0.001) was less than 0.05. As a result, the alternative hypothesis (Ha) is accepted. It means that the use of word chain game can improve the English vocabulary mastery of eighth grade junior high school students makes a significant difference.

For suggestion, the teacher must have creativity and must be good performance at applying the right game of teaching. Using good and relevant game in teaching vocabulary can change psychological condition of students, In addition, the saturation situation that we get, which in the end we will not be able to get maximum results.

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