

17. The Effect of Using Whispering Technique and Jigsaw Technique

by Dr. Erika Sinambela

Submission date: 23-Jul-2023 05:20AM (UTC-0700)

Submission ID: 2135316400

File name: he_Effect_of_Using_Whispering_Technique_and_Jigsaw_Technique.pdf (540.27K)

Word count: 7228

Character count: 37384

11

THE EFFECT OF USING WHISPERING TECHNIQUE AND JIGSAW TECHNIQUE IN TEACHING ENGLISH VOCABULARY IN THE FOURTH GRADE OF THE ELEMENTARY SCHOOL

Nurcahaya Sihombing¹, Erika Sinambela³, Lastri Wahyuni Manurung

SD Laguboti, Universitas HKBP Nommensen, Universitas HKBP Nommensen

Email : rurnurcahaya23@gmail.com, erika_sinambela@yahoo.com, lastri.manurung@uhn.ac.id

Abstract

11

Article Info

Received: 30/06/2022

Revised: 20/07/2022

Accepted: 22/07/2022

This research presented a report on using the Whispering Technique and Jigsaw Technique in teaching English vocabulary in the fourth grade the Elementary School. The objectives are to find out the effect of using the Whispering technique and Jigsaw technique in English vocabulary of students and which method is the most effective. It was by using experimental quantitative research. The subject of this study was the fourth grade of SD N 178064 consist of 32 students and the fourth grade of SD N 175798 consist of 16 students as the sample. They were divided into three groups. The first and the second group are Experimental Group and the third is Control Group. They were taught by using Whispering technique and Jigsaw technique in English vocabulary of the students, while the third group (Control Group) was taught without using Whispering technique and Jigsaw technique. The technique for data analysis is quantitative research. In analyzing the data, the mean of the students' pre-test in experimental group 1 (Whispering technique) is 60,25 and the mean of the post-test in experimental group 1 is 84,875. The mean of the students score for pre-test in experimental group 2 (Jigsaw technique) is 58,5 and the mean of the students score for post-test in experimental group 2 is 84,75. The mean for pre-test in control group is 47,25 and the mean for post-test in control group is 55,75. The conclusion is that the using of Whispering technique and Jigsaw technique are significantly affect the students in teaching English vocabulary. Whispering technique is the most effective one in teaching English vocabulary for students than Jigsaw technique especially for elementary school. It is suggested that teachers should apply these techniques to improve students in English vocabulary.

Keywords: Vocabulary, Whispering technique, Jigsaw technique..

1. Introduction

As a foreign language, students are not familiar with English. Although they have learnt English lesson from elementary school, they still get many difficulties in learning this language. The classroom is usually the only place for many students to practice English. They find and believe English difficult Subject for some reason. One of the reasons is that it is difficult to learn vocabulary. It happens because they have to adopt a new pronunciation and the meaning of the word. Vocabulary is an important aspect in a language. To master a language, a learner should master the vocabulary of the language. In other words, the learner cannot use a language without having knowledge about vocabulary of that language. Vocabulary is the foundation to build languages, which plays a fundamental role in communication". And also is supported by (Richards, 2002), "Vocabulary is one of the core components of language proficiency and determines how well learners speak, listen, read, and write".

It describes that by mastering vocabulary, people can express their ideas and understand the other basic competence well. Students of Elementary School learn basic English. Students study about simple words or things in their surroundings, it is aimed that students are able to understand simple



Jurnal Scientia is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0)

English used in daily context. But it is difficult to master the other competences without understanding the vocabulary, because vocabulary is the basic competence that must be reached by students in order to get other competencies like reading, writing, listening, and speaking. However, most of teachers are lack on teaching by using social media. Their habit in face to face teaching or conventional teaching is difficult to move (Sipayung, 2021).

Based on the experience of writer as an English teacher. There are few problems faced such as: the students had difficulties to memorize vocabulary. Moreover, the technique who used the teacher is not interested to the students because the teacher did not try to stimulate the students' interest, motivation and enjoyment the learning. So that the students would be passive in the class and only listened to the teacher's explanation without active in the learning. So, the students would bore and not interested about it as consequences the students felt frustrate to study vocabulary anytime. Ginting, et al (2021) stated that every teacher is required to properly understand the teaching and learning method, strategy, or approach that will be used. The selection of the right teaching and learning strategy or approach will have an impact on student mastery or achievement.

Whispering technique is one of games that is suitable to be applied in English learning, including English vocabulary learning. The technique helps students understand English. They need to understand the vocabularies easily and convey the vocabularies through whispering in a way their partners can also understand easily. With easy conveying, there would be strengthening of memory which goes to the achievement of the understanding of vocabularies. The Whisper learning also offers a learning process that students can do with their friends in interactive and interesting way. The students are expected to interact each other, trust each other and indirectly study together in their groups.

Overall, whispering technique in English vocabulary learning process can help the teachers and the students achieve their goals. Writer chose this technique with a lot of consideration to know whether this technique is effective in English learning, and also writer used a learning technique named Jigsaw technique for comparison. 48

Jigsaw technique is good applied in teaching and learning process because it can help the teachers and students in improving English language. Jigsaw technique can provide a great opportunity for the students to share ideas and to work collaboratively, Coetzee (2008: 108) proposed, "Jigsaw technique can be defined as a team approach to learning where each member of the group is dependent on the other members to accomplish a specific learning task or assignment. Each member takes responsibility for a specific part of the task which will contribute to the overall success of the group. Simultaneously the group's success is dependent on each member learning all parts of the lesson", Jigsaw technique is considered as a teamwork learning consists of students working together to achieve shared learning goals and complete jointly specific tasks and assignments. The objective of the study to find out whether: The whispering technique, and Jigsaw technique affect students in teaching English vocabulary

After completing this study, it is expected that result of the study would be useful. There are at three significances the writer put forward of the study:

1) Scientific Significance

The result of the study can help as a contribution for science by giving useful information about Whispering technique and Jigsaw technique the implementation or how the techniques work, and the benefits of the techniques especially for English vocabulary lesson.

2) Practical Significance

With the result of the study, whispering technique and Jigsaw technique are expected to be able to be applied into practice.

3) Pedagogical Significance

With the result of the study, whispering technique and Jigsaw technique can be



alternatives or a reference in facilitating fun and interesting English vocabulary learning.

2. LITERATURE REVIEW

Vocabulary is part of English material which becomes the basic of skill. Knowledge of vocabularies will increase the ability of other skills, such as reading speaking and listening. For example, by knowing many of words which are relevant with the passage, thus they will get more ability in reading.

2.1 Definition of Vocabulary

22

According to (Hornby, 2006) said that the first definition of vocabulary is all the words that a person knows or uses or all the words in a particular language. The second definition is all the words in a language, and the last is list of words with their meanings, especially in a book for learning a foreign language. We can conclude that vocabulary is all the words with their meaning in a language that a person knows or uses in his life. Knowing vocabulary or a word is not simple and easy which we think. Because, there are some aspects of word knowledge that are used to measure word knowledge.

Vocabulary cannot be separated from the language; it is important part of language. According to (Nation, 2001) "The importance of vocabulary has been neglected, when people began to realize that learning vocabulary is indeed not simple matter". It means that vocabulary is the important part of language, without vocabulary the language cannot be used to maintain all information in language. Vocabulary can be defined as sounds that express a meaning and form an independent unit in a language. It can be said that vocabulary is smallest unit of speech that processes individual meaning to speak and can be used to interact one another and vocabulary can be said as a group of words on certain language as a part in teaching-learning in a foreign language

(Suardi, 2000) stated that vocabulary is: (a) a list of words, sometimes phrases, usually arranged in alphabetical order and defined, a dictionary, glossary or lexicon, (b) All the words of language, (c) All the words used by a person, class, profession, etc. According to (Hiebert, 2005) himself says, "vocabulary is the knowledge of meanings of words". Based on some definitions above the writer concluded that vocabulary is the total number of words which used to communicate in all side of human relation or vocabulary is the word which meaning and function words of language.

56

2.2 Concept of Vocabulary

According to (Alqahtani, 2015), "vocabulary learning is an essential part in foreign language learning as the meanings of new words are very often emphasized, whether in books or in classrooms. It is also central to language teaching and is of paramount importance to a language learner. Thornbury (2002) stated "If you spend most of your time studying grammar, your English will not improve very much. You will see most improvement if you learn more words and expressions. You can say very little with grammar, but you can say almost anything with words!" This statement shows that learning vocabulary is so important, even more important than learning grammar. It is because it is better to learn the meaning of a word than to learn how it is structured. Meanwhile, (Alqahtani, 2015) states "vocabulary knowledge is often viewed as a critical tool for second language learners because a limited vocabulary in a second language impedes successful communication".

Vocabulary is the core or basic in learning English. Because it is all about words and inferred meaning. As (Richards., 2002) state that vocabulary is the core in learning all of English skills such as to speak, read, write, or listen. All of these require vocabulary. Someone who have mastered vocabulary will be clear and easy in learning the other skills. Vocabulary could get from watching television, radio, etc. Through these ways, someone could learn how to speak or apply the content of language just like native speakers. It means that vocabulary is very important in languages learning because it is hard to use language without vocabulary. All language skills are concerned with words. It is the basic of learners to speak, listen, read, write. They could not speak, read, and write well



without mastering vocabulary. Vocabulary should be taught efficiently, in order to make learners remember each words they have learnt and explore new words.

Vocabulary is the list of words that make the sentence on a language. It is used as the main tool to understand forms, phrases, sentences and texts in one or more paragraphs. It supported by (Cameron, 2011) said that "Vocabulary is central to the learning of a foreign language at primary level. We must master vocabulary, because it is basic element and the most important parts in teaching learning process. Mastering a new vocabulary can create similarities between the native language and the target language, which can make it difficult to improve other English skills, especially in reading (Manalu, et al 2022).

2.3 Cooperative Learning

(Johnson., 1999). "Cooperative learning strategies refer to a variety of teaching methods in which students work in small groups to help one another learn academic content. In cooperative classrooms, students are expected to help each other, to discuss issues and argue with each other, to assess each other's understanding of the topic, and fill in gaps in each other's learning". They work together to learn and are responsible for the teammate's learning as well as their own (Kagan, 2010). Kagan also created cooperative learning model of his own. The model is based on the concept and use of structures and it is considered as an innovative approach to classroom instructions. Kagan's model of cooperative learning is believed to be one of the best out there because its structures could bring about good outcomes including greater social and language skills that will prepare students for real world situation and also greater employability. 'Cooperative' that can be defined as involving doing something together or working together with other towards a shared aim. Its mean that cooperative is learning together in small group to share information with other towards a shared aim. Brown (2001) stated that Cooperative learning is group learning activity organized so that learning is dependent on the socially structured exchange of information between learners in groups and in which each learner is held accountable for his or her own learning and is motivated to increase the learning of others. Furthermore. (Larsen, 2000) said that cooperative learning is the student work together in pairs and groups, they share information and come to each other, they are a "team" whose players must work together in order to achieve goals successfully.

In addition, (Jenkins., 2009) describe Cooperative Learning as "an instructional procedure where by learners work together in small groups and are rewarded for their collective accomplishment." In this case, the contribution of each member influences the achievement of the whole team. From the definitions above, it can be concluded that Cooperative Learning is a teaching method which emphasizes the student team work and learning together in groups, which are structured so that group members have to cooperate to succeed.

2.4 The Elements of Cooperative Learning

(Johnson., 1995) feels that in order for a lesson to be structured cooperatively, five essential elements must bse present. It is these five pieces which distinguish Cooperative Learning from other traditional grouping styles. The first of these elements is the concept of "positive interdependence". Students must feel that they need each other in order to complete the group task. Each group member depends on each other to accomplish a shared goal or task. Without the help of one member, the group is not able to reach the desired goal. For a true cooperative learning condition, students must perceive that they are positively interdependent with other members of their group.

The second element necessary for a successful cooperative grouping strategy to work is "face to face" interaction. The students work in a group of four to five and interact with each other. The students must help each other, assist, support, encourage, and praise each "other for the efforts to learn. Students must be allowed to explain to each other how to solve the problems, discuss the nature of the concepts being learned, and teach one another. Third element of Cooperative Learning is individual accountability". Students must show that they have individually mastered the materials.



They must also feel that each of them is responsible for helping other students to complete a task; therefore, they have to master the materials. It is important for group members to know who may need more assistance, support and or encouragement.

The fourth element of Cooperative Learning is "interpersonal and small group skills". The teacher should teach the students how to work together and discuss how well their groups in achieving their goals. The students must be taught to function effectively together as a group in the learning process. There are some social skills that must be taught to the students. They are leadership, decision-making, trust-building, communication, conflict-management skills.

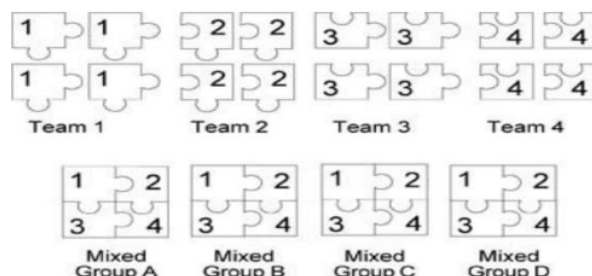
The last element is "group processing". The group members discuss how well they are achieving their goals and maintaining effective working relationships. They can also evaluate what member actions are helpful and not helpful, and then they can make a decision about what behaviors to continue or change in the next activities.

2.5 Jigsaw Technique

Jigsaw the first time developed and tried by Elliot Aronson and his friends in Texas University in 1971, and then adopted by Slavin and his friends in John Hopkins University (Slavin, 2001). The jigsaw strategy is used to develop the skills and expertise needed to participate effectively in group activities. It focuses on listening, speaking, co-operation, reflection, and problem-solving skills.

Jigsaw is a cooperative learning technique in which students work in small groups. Jigsaw can be used in a variety of ways for a variety of goals, but it is primarily used for the acquisition and presentation of new material, review, or informed debate. In this method, each group member is assigned to become an "expert" on some aspect of a unit of study. After reading about their area of expertise, the experts from different groups meet to discuss their topic, and then return to their groups and take turns teaching their topics to their group mates. Jigsaw is a very useful tool for trying to help students' integrated knowledge and understanding from various sources and experts. The basic idea is very simple: students are divided into groups which all have their own research topic to study. After research each topic group is split in such a manner that new groups have a single member from each of the old topic groups. After the new groups have been assembled each topic expert is responsible for integrating the knowledge of his/her topic specific knowledge into the understanding of the new group he/she is in.

The overview of the technique can be described as follows:



Jigsaw is a well-established method for encouraging group sharing and learning of specific content. This technique can be used as an instructional activity across several days and is best to use when there is a large amount of content to teach. Jigsaw helps students learn cooperation as group members share responsibility for each other's learning by using critical thinking and social skills to complete an assignment. Subsequently, this strategy helps to improve listening, communication, and problem-solving skills. Monitoring each student's participation within the groups provides teachers with information about how much the students already know about the topic. This allows teachers to



tailor instruction accordingly.

This study used Experimental research. According to (Sudjana., 2001), "Quantitative research is a research based on assumptions, then determined variables, and then analyzed by using valid research methods, especially in quantitative research". So, this research concluded experimental research is one of research design kinds which have purpose to know or to find causal-effect from the variables. This research used two groups such as an experimental group and control group. The experimental group is the group that is taught with whispering technique and jigsaw technique, as a treatment. Then, the control group is the group that is taught with conventional method or without treatment. The total number of unit individuals that the characteristic or subject of research. (Sugiyono, 2012b) stated that population is a generalization area consisting of: objects/subjects that have certain qualities and characteristics that are determined by the researcher for study and then draw the conclusions. Based on the quotation, the population of research consisted of 32 students of the fourth grade of SD N 178064 and 16 students of the fourth grade of SD N 175798. The amount of the population is 48 students. (Sugiyono, 2012a) stated that sample is part of the number and characteristics of the population." In this research used random sampling to take the class research. According to (Arikunto, 2010), purposive sampling is the process of selecting sample by taking subject that is not based on the level or area, but it is taken based on the specific purpose. The samples of this research were the students at the fourth grade of SD N 178064 consist of 32 students and divided into groups, namely 16 students for experimental 1 and 16 students for experimental 2 and 16 students for control group at the fourth grade of SD N 175798.

3. RESULT AND DISCUSSION

3.1 Data Requirement

The following are the result of the pre-test and post-test of experimental groups. The function of pre-test is to know the mean score of experimental groups before receiving the treatment and the function of post-test is to know the mean score of experimental groups after receiving the treatment to know how significant the Whispering technique and Jigsaw technique in English vocabulary.

Table 1. The Analysis scores of the Pre-test and Post-test of Experimental Group 1 (Whispering Technique)

NO	NAME	PRE-TEST (X)	POST-TEST (Y)	X ²	Y ²	X.Y	DEVIATION (Y-X)	D ²
1.	GN	64	84	4096	7056	5376	20	400
2.	AM	56	80	3136	6400	4480	24	576
3.	ACS	64	80	4096	6400	5120	16	256
4	SM	58	84	3600	8100	5400	30	900
5	GS	52	88	2704	7744	4576	36	1296
6	HG	64	88	4096	7744	5632	24	576
7	DM	60	90	3364	7056	4872	26	676
8	RIM	72	96	5184	9216	6912	24	576
9	MS	64	88	4096	7744	5632	24	576



10	GR	52	80	2704	6400	4160	28	784
11	AIM	64	88	4096	7744	5632	24	576
12	RFH	50	80	2500	6400	4000	30	900
13	MM	72	92	5184	8464	6624	20	400
14	MIM	60	80	3600	6400	4800	20	400
15	BS	60	80	3600	6400	4800	20	400
16	RM	52	80	2704	6400	4160	28	784
	OTAL (Σ x)	964	1358	58760	115668	82176	394	10076
	EAN (Σ x) / n	60,25	84,875					

From the table above, it is shown that the total score of pre-tests of experimental group 1 (Whispering technique) is 964 and the total score for post-test is 1358. The mean score of pre-test is 60,25 and the mean score of post-test is 84,875. There is a significant different score both pre-test and post-test of experimental group 1.

From the table above, the mean score of experimental groups 1 (Whispering technique) is calculated as the following:

$$M_{x_1} = \frac{\sum x}{N}$$

$$M_{x_1} = \frac{394}{16}$$

$$M_{x_1} = 24,625$$

The deviation square of experimental group is calculated as follows:

$$dx_1^2 = \sum x^2 - \frac{(\sum x)^2}{N}$$

$$dx_1^2 = 10076 - \frac{(394)^2}{16}$$

$$dx_1^2 = 10076 - \frac{155236}{16}$$

$$dx_1^2 = 10076 - 9702,25$$

$$dx_1^2 = 373,75$$

Table 2. The Analysis scores of the Pre-test and Post-test of Experimental Group 2 (Jigsaw Technique)

NO	NAME	PRE-TEST(X)	POST TEST (Y)	X ²	Y ²	X.Y	DEVIATION (Y-X)	D ²
1.	SS	60	84	3600	7056	5040	24	576
2.	TFS	48	80	2304	6400	3840	32	1024
3.	TM	64	80	4096	6400	5120	16	256



4	KS	56	88	3136	7744	4928	32	1024
5	AB	52	88	2704	7744	4576	36	1296
6	RB	64	88	4096	7744	5632	24	576
7	EAB	40	84	1600	7056	3360	44	1936
8	BM	72	96	5184	9216	6912	24	576
9	RIS	64	88	4096	7744	5632	24	576
10	RYS	52	80	2704	6400	4160	28	784
11	RH	64	88	4096	7744	5632	24	576
12	GS	68	80	4624	6400	5440	12	144
13	GOS	68	92	4624	8464	6256	24	576
14	VO	60	80	3600	6400	4800	20	400
15	RA	60	80	3600	6400	4800	20	400
16	MR	44	80	1936	6400	3520	36	1296
	TOTAL (Σ x)	936	1356	56000	115312	79648	420	12016
	MEAN (Σ x) / n	58,5	84,75					

From the table above, it is shown that the total score of pre-test of experimental group 2 (Jigsaw technique) is 936 and the total score of post-test is 1356. The mean score of pre-test is 58,5 and the mean score of post-test is 84,75. There is a significant different score both pre-test and post-test of experimental group 2.

From the table above, the mean score of experimental group 2 (Jigsaw technique) is calculated as the following: $Mx_2 = \frac{\sum x}{N}$

$$Mx_2 = \frac{420}{16}$$

$$Mx_2 = 26,25$$

The deviation square of experimental group is calculated as follows:

$$dx_2^2 = \sum x^2 - \frac{(\sum x)^2}{N}$$

$$dx_2^2 = 12016 - \frac{(420)^2}{16}$$

$$dx_2^2 = 12016 - \frac{(176400)}{16}$$

$$dx_2^2 = 12016 - 11025$$

$$dx_2^2 = 991$$

The following are the results of the pre-test and post-test of control group. It was taken by giving the same test both pre-test and post-test. The function of pre-test is to know the mean score of the control group before receiving the treatment and post-test is to know the mean score of the control group without the treatment.



Table 3 The Analysis score of Pre-test and Post-test of Control Group

NO	NAME	PRE-TEST (Y1)	POST-TEST (Y2)	Y1 ²	Y2 ²	Y1.Y2	DEVIATION (Y2-Y1)	D ²
1.	RES	40	52	1600	2704	2080	12	144
2.	GF	44	56	1936	3136	2464	12	144
3.	RS	56	64	3136	4096	3584	8	64
4	JS	52	48	2704	2304	2496	-4	16
5	ROS	48	56	2304	3136	2688	8	64
6	GGB	52	76	2704	5776	3952	24	576
7	JO	36	40	1296	1600	1440	4	16
8	EO	32	36	1024	1296	1152	4	16
9	FR	44	68	1936	4624	2992	24	576
10	MO	52	60	2704	3600	3120	8	64
11	RR	48	52	2304	2704	2496	4	16
12	RFA	44	48	1936	2304	2112	4	16
13	JAO	48	52	2304	2704	2496	4	16
14	RJA	52	64	2704	4096	3328	12	144
15	IVR	56	60	3136	3600	3360	4	16
16	ROR	52	60	2704	3600	3120	8	64
	TOTAL (Σ x)	756	892	36432	51280	42880	136	1952
	MEAN (Σ x) / n	47,25	55,75					

It is shown that the total score of pre-test of control group is 756 and the total score of post-test is 892. The mean score of pre-test is 47,25 and the mean score of post-test is 55,75. The mean score of pre-test and post-test of control group is different but it is not significant.

From the table above, the mean score control group can be calculated as follows: $My = \frac{\sum y}{N}$

$$My = \frac{136}{16}$$

$$My = 8,5$$

The deviation square of control group is calculated as follows:



Jurnal Scientia is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0)

$$\begin{aligned} dy^2 &= \sum y^2 - \frac{(\sum y)^2}{N} \\ dy^2 &= 1952 - \frac{(136)^2}{16} \\ dy^2 &= 1952 - \frac{(18496)}{16} \\ dy^2 &= 1952 - 1156 \\ dy^2 &= 796 \end{aligned}$$

3.2. The Validity of the Test

The test was valid for the purpose of the test has sufficient evidence that correlate with ability to be tested. For the test, it was calculated by using the formula as follows:

$$\begin{aligned} r_{xy} &= \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{N \sum X^2 - (\sum X)^2\} \{N \sum Y^2 - (\sum Y)^2\}}} \\ r_{xy} &= \frac{(16 \cdot 82176 - (964 \cdot 1358))}{\sqrt{\{(16 \cdot 58760 - (964)^2)\} \{(16 \cdot 115668) - (1358)^2\}}} \\ r_{xy} &= \frac{1314816 - 1309112}{\sqrt{(940160 - 929296)(1850688 - 1844164)}} \\ r_{xy} &= \frac{5704}{\sqrt{(10864)(6524)}} \\ r_{xy} &= \frac{5704}{\sqrt{70876736}} \\ r_{xy} &= \frac{5704}{8418,83} \\ r_{xy} &= 0,68 \end{aligned}$$

r_{xy}	Validity specification
0,80-1,00	Very High
0,60-0,80	High
0,40-0,60	Fair
0,20-0,40	Low
0,00-0,20	Very Low

Based on the data researcher conclude that the mean of validity of the test is 0,68 based on the criteria 0,68 belongs to High. In other words the test was **Valid**.

3.3 The Reliability of the Test

In this study, the reliability of the test was calculated by this formula:

$$R_{tt} = \frac{2(R_{xy})}{1 + R_{xy}}$$

Where:

R_{tt} = The reliability of test

R_{xy} = correlation coefficient between the two tests



$$R_{tt} = \frac{2(R_{xy})}{1 + R_{xy}}$$

$$R_{tt} = \frac{2(0,68)}{1 + 0,68}$$

$$= \frac{1,36}{1,68}$$

$$= 0,81$$

r_{xy}	Reliability specification	Base
0,80-1,00	Very High	d on the data
0,60-0,80	High	from the
0,40-0,60	Fair	calculation
0,20-0,40	Low	above the
0,00-0,20	Very Low	researcher
		get reliability
		of the

test 0,81. It means that the reliability is Very High. So, the test that the researcher uses is **Reliable**.

3.4 Testing the Hypothesis

In testing hypothesis, the formula of t-test and distribution table of the score applied. These used to see whether the hypothesis is accepted or not. The following table is the scores of pre-tests and post-test of experimental groups.

To find out whether that applying Whispering Technique effects the students in English vocabulary significantly, t-test can be used as the formula. The t-test was calculated as the following:

$$t = \frac{Mx_1 - My}{\sqrt{\left(\frac{dx_1^2 + dy^2}{(Nx_1 + Ny) - 2}\right) \left(\frac{1}{Nx_1} + \frac{1}{Ny}\right)}}$$

$$t = \frac{24,625 - 8,5}{\sqrt{\left(\frac{373,75 + 796}{(16 + 16) - 2}\right) \left(\frac{1}{16} + \frac{1}{16}\right)}}$$

$$t = \frac{16,125}{\sqrt{\left(\frac{1169,75}{30}\right) \left(\frac{2}{16}\right)}}$$

$$t = \frac{16,125}{\sqrt{(38,99) (0,125)}}$$

$$t = \frac{16,125}{\sqrt{4,8738}}$$

$$t = \frac{16,125}{2,2077}$$

$$t = 7,3040$$

To prove this hypothesis, the writer used critical value of students' distribution (t) at the level of significance: 0,05 with N table = 30

$$(df) = Nx + Ny - 2$$

$$(df) = 16 + 16 - 2$$

$$(df) = 30$$

The result show that $t_{observed} > t_{table}$ ($7,304 > 1,697$) at the level of significance 0,05 and degree of freedom (df) = 30. It can be concluded that there is significant effect of using Whispering technique on students' in English vocabulary. It is really true and accepted in this research. It means alternative



hypothesis (Ha) is accepted. To find out whether that applying Jigsaw technique effects the students in English vocabulary significantly, t-test can be used as the formula. The t-test was calculated as the following:

$$t = \frac{Mx_2 - My}{\sqrt{\left(\frac{dx_2^2 + dy^2}{(Nx_2 + Ny) - 2}\right) \left(\frac{1}{Nx_2} + \frac{1}{Ny}\right)}}$$

$$t = \frac{26,25 - 8,5}{\sqrt{\left(\frac{991 + 796}{(16 + 16) - 2}\right) \left(\frac{1}{16} + \frac{1}{16}\right)}}$$

$$t = \frac{17,75}{\sqrt{\left(\frac{1787}{30}\right) \left(\frac{2}{16}\right)}}$$

$$t = \frac{17,75}{\sqrt{(59,57) (0,125)}}$$

$$t = \frac{17,75}{\sqrt{7,4463}}$$

$$t = \frac{17,75}{2,7288}$$

$$t = 6,5047$$

To prove this hypothesis, the writer used critical value of student's distribution (t) at the level of significance: 0,05 with N table = 30

$$(df) = Nx + Ny - 2$$

$$(df) = 16 + 16 - 2$$

$$(df) = 30$$

The result show that $t_{\text{observes}} > t_{\text{table}}$ ($6,504 > 1,697$) at the level of significance 0,05 and degree of freedom (df) = 30. It can be concluded that there is significant effect of using Jigsaw technique on students in English vocabulary. It is really true and accepted in this research. It means alternative hypothesis (Ha) is accepted.

4. CONCLUSIONS

Based on the calculation, the result of the research shows that the mean score of the experimental group 1 (Whispering technique) 24,625 is higher than control group 8,5. The difference was tested by using t-test formula. The result of t-test calculation shows that the t_{observe} value (7,304) higher than t_{table} value (1,697). The mean score of experimental groups 2 (Jigsaw technique) 26,25 is higher than control group 8,5. The difference was tested by using t-test formula. The result of t-test calculation shows that the t_{observe} value (6,504) higher than t_{table} value (1,697). It can be concluded that there is a significant effect of applying Whispering technique and Jigsaw technique in teaching English vocabulary. While there is no significant improvement for control group that is taught without Whispering technique and Jigsaw technique. Also the score of students who is taught by Whispering technique is higher than the students who were taught by using Jigsaw technique. This research presents a research report on the using of Whispering Technique and Jigsaw Technique in teaching English vocabulary at the fourth grade of the Elementary School. The objectives found out the effect of using Whispering technique and Jigsaw technique in English vocabulary of students and which method was the most effective. It was by using experimental quantitative research. The finding of this research shows that both Whispering technique and Jigsaw technique significantly affects the students in teaching English vocabulary. The students' got higher mean score on post-test after the treatment. The students who are taught by using Whispering technique got higher post test score than pre-test score and so do the students who are taught by using Jigsaw technique. And the Whispering technique is more effective than Jigsaw technique. Teaching English vocabulary by using Whispering technique and Jigsaw technique are fun. The students were active. It can make students relax and fun to study.



Fun in learning with Whispering technique and Jigsaw technique lead the students to use English in communicative way, teaching learning process become more attractive and it make the teacher is easier to teach the vocabulary. When the students master more vocabulary, they will comprehend the text better.

Whispering technique is one kind of technique that can be used to teach vocabulary mastery. This game will help the students to show the importance of communicating clearly with other. "Also, by playing this game, the students will be able to demonstrate how easy it is to miss exactly what others are saying and discuss what that means for communicating". Automatically by playing this game, the students can help to increase their vocabulary. Whispering technique could attract in learning English vocabulary in the classroom. Games created the motivation for learners of English because of the competition between students. Strong motivation makes learners be interested in language learning especially vocabulary.

Jigsaw technique is also a variety of teaching methods in which students work in small groups to help one another learn academic content. In Jigsaw classrooms, students are expected to help each other, to discuss issues and argue with each other, to assess each other's understanding of the topic, and fill in gaps in each other's learning". They work together to learn and are responsible for the teammate's learning as well as their own.

In the conventional method class, the students only learn by hearing the teacher explaining about English vocabulary and found many unfamiliar words and have difficulties to comprehend the text and answer the questions. The researcher found that the students felt bored with this method because it was monotonous and passive learning.

There was the previous research about vocabulary but different technique of teaching was conducted by (Hadjer, 2012) in learning styles and motivation on students' vocabulary acquisition for writing purposes. (Putri, 2020) about students' motivation and reading comprehension, and students' vocabulary in University of Lampung Bandar Lampung. Muna (Alshaw, 2014) about using game strategy for motivating students to learn new English vocabulary, also conducted a research about influence of using Chinese Whispering Game towards students' speaking ability by (Utami, 2018), and also conducted a research about Cooperative learning model on the students' vocabularies learning at SMA Seka Kemuning Cirebon by (Lutfiana, 2012). (Fajar, 2012) improving the vocabulary learning of SMP N 2 Kampunglaut through Cooperative learning. (Milawati, 2015) using cooperative learning to improve English writing skills of grade VIII students of SMP N 1 Jogonalan Klaten. The aim of this research improved English writing skills of grade VIII students of SMP N 1 Jogonalan Klaten by using cooperative learning (Pramusita, 2019) using Cooperative learning of English among very young learners intrinsic case study. This research gave rich description concerning the application of cooperative English learning among very young learners. (Safirah, 2016) about improving vocabulary mastery through vocabulary cards of Grade VII students at SMP Institut Indonesia Yogyakarta in the 2015/ 2016 academic year. This study was categorized into Action Research (AR). (Sudirman, 2020) about improving students' vocabulary mastery through how special Am I Game at the second semester of the eighth grade of SMPN 35 Bandar Lampung in academic year of 2019/2020.

The similarities between the previous researches above with the research conducted by the writer was experimental quantitative research and the techniques of teaching. Both are using pre-test and post-test as the instrument of collecting the data. Almost all the researches above were conducted in teaching learning process in class started from Elementary school until university and each research above only have one experimental class and one control class.

REFERENCE

- [1] Alqahtani. (2015). The Importance of Vocabulary in Language Learning and How to be Taught.



Jurnal Scientia is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0)

- International Journal of Teaching and Education*, 3(3), 17.
- [2] Alshaw, M. (2014). *Using Game Strategy for Motivating Students to Learn New English Vocabulary* (5th ed.).
 - [3] Arikunto. (2010). *Prosedur Penelitian, Suatu Pendekatan Praktek*. Rineka Cipta.
 - [4] Bonet, D. (1991). *Vocabulary Improvement*. Thompson Course Technology.
 - [5] Brown, D. (2001). *Teaching by Principle, An Interactive Approach to Language Pedagogy*. San Francisco State University.
 - [6] Cameron. (2011). *Teaching Language to Young Learner*. Combridge University Press.
 - [7] Dawson, C. (2009). *Introduction to research methods a practical guide for anyone undertaking a research project / Catherine Dawson* (4th ed.). Oxford.
 - [8] Fajar, M. (2012). *Improving The Vocabulary Learning of Class B Grade VIII Students of SMP N 2 Kampunglaut Through Cooperative Learning in The Academic Year of 2011/ 2012*.
 - [9] Fisher, D. (2020). *What to say in Chinese Whispers*.
 - [10] Ginting, D., Manik, S., Sinambela, E., Pasaribu, A. N. (2021). *The Effect of Using Snowball Throwing Method and SQ4R Method for Students' Reading Comprehension Skill at SMA Negeri 1 Kuala Stabat. Budhapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 4(4).
 - [11] Gorjian, B. (2018). *Using Whispering Game in Teaching Speaking Skill to EFL Learners. Journal of Applied Linguistics and Language Learning*, 43.
 - [12] Hadjer, B. (2012). *Learning Styles and Motivation on Students' Vocabulary Acquisition for Writing Purposes*.
 - [13] Harmer. (2002). *The Practice of English Teaching* (3rd ed.).
 - [14] Hiebert. (2005). *Teaching and learning Vocabulary: Bringing Research to Practice*. Lawrence Erlbaum Associates.
 - [15] Hornby. (2006). *Advance Learner's Dictionary*. Oxford University Press.
 - [16] Huang, Y. (2015). Chinese Whispers. *Studies in Global Asias*, 1(1), 66–69.
 - [17] Jenkins., & Metcalf. (2009). *The act of teaching* (5th ed.). McGraw-Hill.
 - [18] Johnson., & Johnson. (1995). *Cooperative learning methods: A meta-analysis*.
 - [19] Johnson., & Johnson. (1999). *Learning together and alone: Cooperative, competitive, and individualistic learning* (5th ed.). Allyn & Bacon.
 - [20] Kagan. (2010). *Cooperative Learning Resources for Teachers*. Resources for Teachers.
 - [21] Kramer. (2009). *The essential of vocabulary teaching: From theory to practice*. Department of Teaching, Learning and Teacher Education.
 - [22] Larsen, D. (2000). *Techniques and principles in language teaching*, (2nd ed.). Oxford University Press.
 - [23] Lutfiana, N. (2012). *Cooperative Learning Model on The Students' Vocabularies Learning at SMA Seka Kemuning Cirebon*.
 - [24] Manalu, N. A., Tampubolon, S., Berutu, D.H., & S. Y. . (2022). *The Effect of Diglot-Weave Technique on Student ' s Vocabulary Mastery. Jurnal Pendidikan Tambusai*, 6(1), 8275–8279.
 - [25] Milawati, K. (2015). *Using Cooperative Learning to Improve English Writing Skills of Grade VIII Students of SMP N 1 Jogonalan Klaten*.
 - [26] Nation. (2001). *Learning vocabulary in another language*. Cambridge University Press.
 - [27] Nguyen., & Nga. (2003). *Learning Vocabulary Through Games. Asian EFL Journal*.
 - [28] Pramusita, S. . (2019). *Cooperative Learning of English among Very Young Learners: Intrinsic Case Study*. Sanata Dharma University.
 - [29] Putri, Y. (2020). *Students' motivation and reading comprehension, and students' vocabulary mastery*.
 - [30] Rasinski. (2007). *Evidence-based instruction in reading: A professional development guide to vocabulary*. Pearson., p1.



- [31] Richards., &Renandya. (2002). *Methodology in Language Teaching*. Cambridge University Press.
- [32] Safirah, Z. (2016). *Improving vocabulary mastery through vocabulary cards of Grade VII students at SMP Institut Indonesia Yogyakarta in the 2015/ 2016 academic year*.
- [33] Sipayung, K. (2021). IMPROVING STUDENTS VOCABULARY THROUGH BBC'S VIDEO IN INSTAGRAM AT JUNIOR HIGH SCHOOL. *Epigram*, 18(1), 32–36.
- [34] Slavin, E. (2001). *Cooperative Learning: Teori, Riset dan Praktik*. Nusa Media.
- [35] Suardi, P. (2000). *Teaching vocabulary To ESI.Learners*. Prentice Hall.
- [36] Sudirman, C. . (2020). *Improving Students' Vocabulary Mastery Through How Special AM I Game at The Second Semester of The Eighth Grade of SMPN 35 Bandar Lampung in Academic Year of 2019/2020*.
- [37] Sudjana., &Ibrahim. (2001). *Penelitian dan Penilaian Pendidikan*. Sinar Baru Algesindo.
- [38] Sugiyono. (2012a). *Metode Penelitian Pendidikan Pendekatan Kuantatif, Kualitatif, dan R&D*. Alfabet.
- [39] Sugiyono. (2012b). *Metode Penelitian Pendidikan Pendekatan Kuantatif, Kualitatif, dan R&D*. Alfabet.
- [40] Thomas, D. (2013). *Chinese Whispers*. Ubu Projex.
- [41] Thornburry, S. (2002). *cited in David Wilkins*. Person Education Limited.
- [42] Thornburry. (2002). *How to Teach Vocabulary*. Pearson Education Limited.
- [43] Tooley, C. (2016). *The Education System Is Broken*. All Right Reserved.
- [44] Tryadi, J., Manik, S., Pasaribu, A. . (2021). The Effect Of Using Task Based Language Teaching In Teaching Speaking Virtually For The Seventh Grade Students Of Methodist-2 Medan. *International Journal of Educational Research & Social Sciences*, 2(4), 938–942.
- [45] Utami, P. (2018). *The Influence of Using Chinese Whispering Game Towards Students' Speaking Ability At The First Semester of The Eighth in SMP Negeri 1 Tanjung Sari South Lampung 2017/2018 Academic Year*Vockell, E. L. 1993. Mac Milan Publish.

17. The Effect of Using Whispering Technique and Jigsaw Technique

ORIGINALITY REPORT

19%

SIMILARITY INDEX

17%

INTERNET SOURCES

7%

PUBLICATIONS

12%

STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to Universitas 17 Agustus 1945 Semarang Student Paper	2%
2	repository.uncp.ac.id Internet Source	1%
3	f.library.uny.ac.id Internet Source	1%
4	onesearch.id Internet Source	1%
5	eprints.umg.ac.id Internet Source	1%
6	repositorio.umsa.bo Internet Source	1%
7	dspace.unl.edu.ec Internet Source	1%
8	jurnal.untad.ac.id Internet Source	1%

9	Internet Source	1 %
10	pundipusatduniailmu.blogspot.co.id Internet Source	1 %
11	Submitted to American College of Education Student Paper	<1 %
12	ejurnal.unima.ac.id Internet Source	<1 %
13	journal3.uin-alauddin.ac.id Internet Source	<1 %
14	repository.ar-raniry.ac.id Internet Source	<1 %
15	Submitted to American University in the Emirates Student Paper	<1 %
16	ejournal.iainpaloopo.ac.id Internet Source	<1 %
17	journal-center.litpam.com Internet Source	<1 %
18	ojs.unm.ac.id Internet Source	<1 %
19	www.jptam.org Internet Source	<1 %
20	Submitted to Salem College Student Paper	

<1 %

21

jurnal.pnj.ac.id

Internet Source

<1 %

22

Submitted to Universiti Teknologi Mara

Student Paper

<1 %

23

Submitted to University of Nottingham

Student Paper

<1 %

24

journal.universitaspahlawan.ac.id

Internet Source

<1 %

25

ejournal.ihtdn.ac.id

Internet Source

<1 %

26

idr.uin-antasari.ac.id

Internet Source

<1 %

27

Submitted to University of Pune

Student Paper

<1 %

28

Davoudi, Amir Hoseyn Mohammad, and Babak Mahinpo. "Kagan Cooperative Learning Model: The Bridge to Foreign Language Learning in the Third Millennium", Theory and Practice in Language Studies, 2012.

Publication

<1 %

29

Submitted to Institut Pendidikan Guru Malaysia

Student Paper

<1 %

30	scholar.stjohns.edu Internet Source	<1 %
31	Submitted to UIN Sunan Gunung Djati Bandung Student Paper	<1 %
32	Submitted to University of Salford Student Paper	<1 %
33	dspace.unza.zm Internet Source	<1 %
34	Submitted to Touro College Student Paper	<1 %
35	archives.umc.edu.dz Internet Source	<1 %
36	epe.lac-bac.gc.ca Internet Source	<1 %
37	jbhost.org Internet Source	<1 %
38	uia.e-journal.id Internet Source	<1 %
39	Submitted to American InterContinental University Student Paper	<1 %
40	Submitted to Universiti Teknologi MARA Student Paper	<1 %

41	amarabac.org Internet Source	<1 %
42	bib.univ-oeb.dz:8080 Internet Source	<1 %
43	ejurnal.stikesrespati-tsm.ac.id Internet Source	<1 %
44	journal.laaroiba.ac.id Internet Source	<1 %
45	repository.umpwr.ac.id:8080 Internet Source	<1 %
46	Submitted to Management Development Institute Of Singapore Student Paper	<1 %
47	academypublication.com Internet Source	<1 %
48	repository.unp.ac.id Internet Source	<1 %
49	repository.uinsaizu.ac.id Internet Source	<1 %
50	eprints.iain-surakarta.ac.id Internet Source	<1 %
51	eprints.zu.edu.ua Internet Source	<1 %
52	www.scitepress.org	

<1 %

53

Submitted to University of Wales, Lampeter

Student Paper

<1 %

54

moam.info

Internet Source

<1 %

55

I Nyoman Jampel, I Wayan Widianana, Dewa Gede Hendra Divayana. "The Effect of Implementation Authentic Assessment Development Result based on ICT Toward Student's Learning Outcome in Learning Process by 2013 Curriculum", International Journal of Modern Education and Computer Science, 2016

Publication

<1 %

56

Submitted to Universitas Negeri Semarang

Student Paper

<1 %

Exclude quotes On

Exclude matches Off

Exclude bibliography Off

17. The Effect of Using Whispering Technique and Jigsaw Technique

GRADEMARK REPORT

FINAL GRADE

/0

GENERAL COMMENTS

Instructor

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

PAGE 7

PAGE 8

PAGE 9

PAGE 10

PAGE 11

PAGE 12

PAGE 13

PAGE 14

PAGE 15