The Effect of Cooking Academy Game on Students' Vocabulary Mastery at SMKN 3 Kendari

Wa Ode Setyaningrum Djafar [1], **Wa Ode Fatmawati** [2], **Siam**[3]
 setyaningrumwaode@gmail.com
[1,2,3]*Halu Oleo University, Indonesia*

ABSTRACT

This study is conducted to find out whether there is any significant effect of using cooking academy game on students' vocabulary mastery at the eleventh grade of SMKN 3 Kendari. It used pre experimental design by involving students at class XI Cullinary art consisting of 20 students. The research instrument was 20 questions of vocabulary test. The findings show that students' mean score on pre-test is 53 and the students mean score on post test is 77,5. As the result, the mean score of post-test in is higher than in pre test. It can be concluded that there is a significant effect of using cooking academy on students' vocabulary mastery at the eleventh grade students of SMK Negeri 3 Kendari. Thus, cooking academy game is recommended to be used by the teacher in teaching and learning process to increase the students' vocabulary mastery.

Keywords:
cooking academy, vocabulary mastery

1. Introduction

Vocabulary is one of the most important aspects of learning English for students. Regardless how well the grammar are comprehended, how successfully speaking is mastered, without words to express a wide range of meanings, communication in L2 cannot take place in any meaningful way (McCarthy, 2003). Moreover, vocabulary is more necessary in immediate communication than grammar (Scrivener, 2011). As the consequences, the vocabulary errors can be more misleading if compared to grammar errors (Hedge, 2000). Hence, vocabulary is an important component to be mastered by the students. As the result, the strategies to teach vocabulary are developed continuously. Appropriate strategies may result to great improvement of vocabulary size. There are several strategies that have been used to teach vocabularies including translation, songs, posters, and games.

One method to teach vocabulary effectively is by playing games. Based on several aforementioned strategies, vocabulary games are considered more effective strategies than traditional vocabulary translation strategy and the others. However, all the strategies share similar concept of vocabulary teaching which take into account the teaching of lexical formation, idioms, collocations, etc. Generally speaking, the use of game in teaching vocabulary has been brought into primary school than high school learners. In the EFL context, vocabulary games are still used as teaching tool to this decade.

This research intends to analyze the effectiveness of game in vocabulary teaching. Specifically, computer vocabulary game is used on this purpose. Hiebert and

Kamil (2005) argue that computer technology can be effective to help vocabulary teaching. Regarding to this issue, a computer game can be used to

teach vocabulary. Therefore, in this research, a Cooking Academy game which is attractive and interesting is used as a medium to learn English vocabulary.

Cooking Academy gamification is an android/IOS/Ipad/Mac game that places players in the kitchen of a prestigious culinary school. The game uses English for all of its instructions which is provided in written form. Players easily play the game because there are attractive pictures, spoken out and instruction. So, besides playing the game, students can also learn English vocabulary, especially in a culinary art. According to Nufus (2016), Cooking Academy game is a game that shows the steps of how to make foods. The use of the food recipes in cooking academy games helps the students to get the understanding and comprehension related to the text that will be taught. In cooking academy games, there are shown the process to make a recipe of foods from all the words. Besides, English is the language used in this game. Therefore, this game is considered effective to improve the students' vocabulary. In other words, this game also helps the players learn new vocabulary in culinary art through the caption in each step.

The game has been globally used by various ages of players. The game can be easily played because it is designed with interesting and attractive instruction. The instructions available in each picture of the game are in simple imperative form. All of them are presented in written form. For example: (1) Grate the ginger; (2) Knead the dough!; (3) Bake the cake!; etc. It is considered that this game would help students learn English vocabulary without using dictionary.

In the context of vocational schools, English should be taught based on the students' need of particular field (Richard, 2001). In this case, the students in cooking vocational school are necessary to learn English for cooking and culinary purposes. Unfortunately, in vocational school located in Kendari, the literature of games used in vocabulary teaching is nowhere to be found. Especially, in SMKN 3 Kendari, one among vocational schools in Kendari in the field of cooking, the study of computer game such as Cooking Academy to help the students to learn vocabulary is never conducted. To fulfill this gap, therefore, the researcher conducts an experimental study to second grade students in order to find out the effect of the game toward the students' vocabulary mastery.

2. Methods

A quantitative method with a pre-experimental design was used as the research design. There were three procedures to conduct the data. They were pre-test, treatment, and post-test.

The population of this study was the second grade students of SMK 3 Kendari. To select the sample, purposive sampling was used. In this case, the researcher chooses the sample from the major class of Culinary art in SMKN 3 Kendari. Since there were only 2 classes of culinary art, the sample groups rely on these two classes.

The instrument of the research was vocabulary test designed in multiple-choice format). The test was designed by using the materials in the book and games. The other designed was matching words. In collecting data, this study carried out the following procedures: pre-test which was done to know students' vocabulary

achievement before applying Cooking Academy game. In the treatment, the researcher taught vocabulary by using Cooking Academy games. The treatment conducted in four meetings at both of the classes. The post-test was given in order to know the students' vocabulary comprehension. The score of post-test would be compared to pre-test score from both of classes to find out the significant effect of cooking academy game toward the students' vocabulary comprehension.

In analyzing the data, the researcher used two techniques namely descriptive statistic and inferential statistic. Descriptive statistic was used to describe the students' characteristics score, such as mean score, standard deviation; maximum and minimum score, and range score. While, inferential statistics was used for testing the hypothesis.

3. Result

The result of this study consists of descriptive analysis of pre-test, descriptive analysis of post-test, descriptive statistic of pre-test and post-test, effect size testing, and hypothesis testing.

Descriptive Analysis of Pre-test

The result of students' pre-test score can be seen in the following table:

Table 1. The Frequency and precentage of Students' Pre-test

Students' score	Frequency	Percentage
30	1	5%
35	2	10%
40	3	15%
45	3	15%
50	1	5%
55	3	15%
60	2	10%
65	1	5%
70	1	5%
75	1	5%
80	2	10%
1060	20	100%

Mean Score	53
Median	55
Mode	40
Maximum Score	80
Minimum Score	30
Range	50
SD	15,16575

From the table above, the minimum score that gained by the students were 30 points and the maximum score that gained by the students were 80 points, so the distance between the lowest and highest scores were 50 points. The mean of the score were 53, median score 55, the mode of the score 40 with the standard deviation were 15,16575. Based on the result of pretest score of the students above, there are 10 students on the pre-test which have under and standard rate of vocabulary mastery.

In conclusion there are a half of the students which have a low vocabulary comprehension. The distribution of students' pre-test score in experimental class was described below:

Table 2. The Distribution of Students' Pre-test Score

Classification	Value	Frequency	Percentage
Very High	81-100	0	0,0%
High	61-80	5	25%
Enough	41-60	9	45%
Low	21-40	6	30%
Very Low	0-20	0	0,0%
Total ($\sum$)		20	100%

The table shows the percentage and the frequency of the score in pre test from 20 students before they were given the treatment by the researcher. The data shows that there were 30% students in "low" level, 45% students in "enough" level, 25% students in "high" level, and the last is 0% students in "A" level. Based on the table.

Descriptive Analysis of Post-test

The following description is the result from students' score on post-test in experimental class after being taught by using Cooking Academy game.

Table 3. Students' Post-test Score

Students' score	Frequency	Percentage
60	1	5%
65	2	10%
70	5	25%
75	3	15%
80	4	20%
85	1	5%
90	1	5%
95	2	10%
100	1	5%
1550	20	100,00%
Mean Score	77,5	
Maximum Score	100	
Minimum Score	60	
Median	80	
Mode	70	
Range	40	
SD	10,94243	

The table above shows students' post-test score in experimental class. The minimum score of post-test is 60, the maximum score is 100, standard deviation is 10,94243 and the mean score on post-test is 77,5. So, mean score 77,5 is categorized as high criteria. The median score is 80, and the mode score is 70. Its show the difference score between the pre test and post test. From this it can be concluded that there is an increase in the value of the post test results.

Table 5. The Distribution of Students' Post-test Score

Classification	Value	Frequency	Percentage

Very High	81-100	5	25%
High	61-80	14	70%
Enough	41-60	1	5%
Low	21-40	0	0,0%
Very Low	0-20	0	0,0%
Total ($\sum$)		20	100%

Based on the distribution of students' post-test score in experimental class, the classification of students' vocabulary mastery on post-test are: very high score (81-100) is achieved by 5 students or 25%, the high score (61-80) is gotten by 14 students or 70%, the moderate score (41-60) is gotten by 1 students or 5%, and there is no student who get low and very low score. Therefore, there are fourteen students or 70% who get score among 61-80 so the dominant score of post-test in experimental class is high criteria.

Descriptive Analysis

The description of the finding of this study was taken from the score of students' pre-test and post-test. Based on the result of the data analysis by description statistic was found of the characteristic of both data.

Table 6. Descriptive Statistic Students' mark on the pretest

Variable	N2	X2	S2	MIN	MAX	RANGE
Pretest (X_1)	20	53	15,16575	30	80	50

Based on the data above shown that from 20 respondents obtained minimum mark was 30, maximum mark was 80, range was 50, standard deviation was 15,16575 and mean was 53. Those means that the students mastery of vocabulary the second grade students' of SMKN 3 Kendari was enough (based on the Suhuri's category, 2008).

Table 7. Descriptive Statistic of Student's mark on the posttest

Variable	N1	X1	S1	MIN	MAX	RANGE
Posttest(X_2)	20	77,5	10,94243	60	100	40

Based on the table above show that from 20 respondent obtained minimum mark 60, maximum mark 100, standard deviation 10,94243, and mean was 77,5. It means that the students' vocabulary second-grade students' of SMKN 3 Kendari after giving treatment by game application (cooking academy) to improve their mastery of vocabulary was high. Based on table 4.5 and 4.6 can be concluded that the enough of students' pretest is different from the enough of students' posttest mark. And the enough of students' posttest mark is higher than the enough of students' pre-test mark.

Hypothesis Testing

The hypothesis testing used to investigate whether there is the effect of cooking academy game) on students mastery of vocabulary at the second-grade students' SMKN 3 Kendari by using statistical analysis, in terms of t-test.

Table 8. The Result of Hypothesis Testing

Df	Sig.	Symbol	A	Result
19	0,000	<	0,05	H_1 accepted

Based on the table indicates that H1 was accepted and H0 was rejected which means that there was a significant effect of cooking academy game toward students' mastery of vocabulary at the second grade in SMKN 3 Kendari.

Based on the result of the data analysis on chapter IV, the researcher concludes that there is a significant effect of using cooking academy game on students' vocabulary achievement at the SMK Negeri 3 Kendari. It can be seen from the mean score of post test (77,5) which is higher that the mean score of pre test (53) in experimental class. Furthermore, the hypothesis testing was found that value of t-test is higher than t-table. It means that H0 is rejected and H1 is accepted. It was caused by the application of this technique gave students' enjoyable activity to remember the vocabulary without memorizing it and make them to be more active in learning process.

As the conclusion, the researcher can conclude that cooking academy game is effective to improve the students' vocabulary achievement rather than regular technique after looking the result in this research.

4. Discussion

One way to improve new vocabulary in the student's brain is by using educational game in the teaching process. According to Sorayaie-Azar (2012), games have a great effect on learning vocabulary because they include a warm competition and create a good cooperative learning environment. Game which is used to improve learners' communicative abilities and learners have an opportunity to use the target language. The statements above is in line with Derakhshan and Davoodi Khatir (2015) who said that games help learners to learn the target language skillfully. Game can creates a meaningful context for language learning. It can be said that using vocabulary games in the classes can make the students improve their English vocabulary. Basic knowledge to learn English is depending on vocabulary achievement. The problem which always found by the teacher in the school is the difficulties for EFL students to memorize much of vocabularies. The problem extends when the learner learns English for spesific purpose which has a little big difference with general English and that case are experienced by students of vocational school. To deal with those problems the researcher conduct a research which use cooking academy games to improve Culinary art students' vocabulary.Based on finding' explanation, it confirms that the teaching vocabulary by using cooking academy games can give a significant effect toward the students' vocabulary mastery. It is indicated by the result of the statistical analysis where the students can achieve high categorized score after being given treatment using cooking academy game in four meetings and showed a significant improvement in mean score from 53 for pretest and up to 77,5 in the posttest. Therefore, it can be said that H1 was accepted and H0 was rejected. One factor which make cooking academy can improve students' vocabulary is because this game is one of the techniques in visualization where the vocabularies are learned visually (Gairns & Redman, 1986). This is in line with Hill (1990) says that visuals have the advantages of bringing images into the unnatural world of the language classroom which make students imagine and thinking about the real object. It means that the students may be faster to be asked memorizing one word rather than draw it and then recognize the picture in word, but something which has more detailed image will be more spontaneous and harder to forget. Meanwhile, looking in experimental class where the students were only asked to memorize all the

vocabulary presented on worksheet, there are only some students who already had basic knowledge who shows their interest to learning, but the others looked sleepy when the teaching was going on. Eventually, the students don't have a strong improvement from pre-test score to post-test score. Waring (2002) stated that a normal situation if the students can memorize ten vocabularies then forget them in the next days and may be remember just two words of them. This is related with what was happening in experimental class. The researcher believed that the students had memorized all the vocabularies which had been taught, but it will not keep well. The students did not have any mark or impression which could lead them to memorize the vocabularies and it makes the students would easily to forget the vocabularies. In the other hand, it also supported by Holden as cited in Marzban and Amoli (2012: 4957) who said that remember and recovery vocabulary are the hardest aspect in studying a foreign language, especially for EFL situation. Therefore, students in experimental class were easy to forget the vocabulary because not supported by fun and interesting activity. So, we could conclude that there was no significant effect of using conventional method that teacher usually used on students' vocabulary mastery at experimental class rather than using cooking academy game.

5. Conclusion

The result of the study shows that there is a significant effect of using cooking academy game on students' vocabulary achievement at the SMK Negeri 3 Kendari. It can be seen from the mean score of post test (77,5) which is higher that the mean score of pre test (53) in experimental class. Furthermore, the hypothesis testing was found that value of t-test is higher than t-table. It means that H0 is rejected and H1 is accepted. It was caused by the application of this technique gave students' enjoyable activity to remember the vocabulary without memorizing it and make them to be more active in learning process.

The researcher can conclude that cooking academy game is effective to improve the students' vocabulary achievement rather than regular technique after looking the result in this research. Therefore, the researcher offers several recommendations. First, the teachers of SMK 3 Kendari can apply this technique to increase the students' vocabulary achievement. Then, the school needs a little bit flexibility to allow students to bring gadget in school in order they can use the application. Finally, for the next researcher they have to fix the test and give some variation in the test to make it look interest for students.

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