WORD DETECTIVE AS AN EFFECTIVE STRATEGY FOR VOCABULARY MASTERY IN ENGLISH LANGUAGE TEACHING AND LEARNING

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Abstract

This research is a quasi-experimental research design. This research aims find out the students' vocabulary mastery taught by using Word Detective strategy, to find out the students' vocabulary mastery taught without using Word Detective strategy, and to find out whether there is any significant difference on students' vocabulary mastery taught by using and taught without using Word Detective strategy. It was done at Forestry Vocational School of Pekanbaru with the sample of the research was the X Meranti as an experimental class that consists of 34 students and X Meranti as control class that consist of 33 students. So, the total sample of this research is 67 student. This research used T-test and SPSS 19 version. The result shows that experimental class or the class that treated with Word Detective Strategy gives a bigger score in posttest than in control class or a class. It means that Word Detective is an effective strategy for vocabulary mastery.

Keywords: Word Detective, Vocabulary Mastery, English Language Teaching, and Learning

1. Introduction

English is one of the crucial subjects of learning. It should be taught to the students from junior high school to the university level. There are four skills of English that students have to learn such as Speaking, Reading, Writing, and Listening. All of those skills are related and could not be separated from each other. Besides, there are so many components included in those skills, one of them

is Vocabulary. Vocabulary is one of the important subjects in learning English. It is integrated on those English skills. However, the students can speak fluently, write well, understand what they listen, read easily, and so on; it is because of their vocabulary mastery. According to Stahl and Nagy (2006), Vocabulary is the most important subject; it is associated with both intelligence and knowledge. A person who knows number of vocabularies can speak; even think closely about the world. Dealing with it, Allcock (2010) said that Vocabulary is the knowledge and the using of the words of spoken English and the lack of it will limit students' reading comprehension and quality writing.

This research done at The Forestry Vocational School in Pekanbaru, some phenomena have happened here, those are some of the students are a lack on a number of vocabulary and still got difficulties in vocabulary mastery because they are not interested in memorizing the words. Students' motivation in Vocabulary mastery could be increased by choosing a better strategy. According to Oxfort (1990), strategies in learning become a very crucial thing because they are the tools to be active, self-directed involvement, and developing communicative competence. It improves proficiency and greater self-confidence. Therefore, it is a very good way to apply a strategy to increase students' vocabulary mastery, it is Word Detective strategy. Ainslie (2002) stated that the Word Detective strategy encourages students to find out the meaning of unknown words. Besides, Kmcielo (2009) in Ayu (2012) mentioned that Word Detective strategy benefits students for exploring the new words without much memorizing, and it increases word intelligence. Then, Stahl and Nagy (2006) mentioned that Vocabulary has largely interfered with not only intelligent but also knowledge about words. Based on Reverso Dictionary (2014), mastery refers to having great skill at something and also refers to similar power or ability. In line with it, Richards and Schmidt (2010) said that mastery is the idea that all students can master a subject for a sufficient time. Meanwhile, vocabulary mastery is the ability in knowing the words. In this research, vocabulary mastery refers to the ability to master the verb and adjective by the tenth-grade students at Forestry Vocational School of Pekanbaru in mastering the vocabulary.

This research aims find out the students' vocabulary mastery taught by using Word Detective strategy, to find out the students' vocabulary mastery taught without using Word Detective strategy, and to find out whether there is any significant difference on students' vocabulary mastery taught by using and taught without using Word Detective strategy at Forestry Vocational School of Pekanbaru.

2. Literature Review

2.1. *Definition of Vocabulary*

Rahmawati (2012: 9) stated that Vocabulary is the first element that the learners should learn in order to master English well besides the other English components and skills. Vocabulary is the collection of words that people know. It is the main aspect of language proficiency that gives an impact on how well students read, write, speak, and listen. Celce and Murcia (2001) mentioned that vocabulary is the central learning in language acquisition. It will be hard to master the language without mastering or understanding a certain number of vocabularies because it is the first step to be learned before the other aspects of language. Meanwhile, McCarten (2007) said that learning vocabulary is closely about remembering, the acquisition of it is the most important component of successful language learning.

Ainslie (2002) said that the more students learn vocabulary the better their ability to equip the meanings of an unknown word. It gives benefits to them not only become better readers but also lifelong learners and readers. Based on those explanations, it can be assumed that language makes your life easier and it starts with vocabulary. Vocabulary is very influential to English learner in their efforts to learn the language, it is imperative for the learners to have an adequate vocabulary in order to communicate well. We should not take easy about Vocabulary because it is the basic one and the most important thing in learning English. The teacher has an important role in teaching vocabulary. She or he will maintain the students to achieve the learning goals.

2.2. Word Detective Strategy

Setiawan (2010: 10) mentioned that Vocabulary is always being an essential part of English; it is one of the elements in language that should be learned. It will be hard to master the language without mastering or understanding a certain number of vocabularies because it is the first step to be learned before the other aspects of language. It is very important to introduce an effective strategy in mastering the vocabulary, it is Word Detective strategy. According to Ainslie (2002), Word Detective is a vocabulary strategy which helps students to find out the meaning of unfamiliar words. In addition, Allcock (2010) said that the Word Detective strategy has been developed to transfer the results from research into effective literacy instructions to classroom activity. It can be used to knowing what is being read and to create the text.

Furthermore, Kmcielo (2009) in (Ayu, 2012) stated that the Word Detective strategy is a strategy that increases the students' ability to develop individual unknown words. It benefits students for exploring the new words without much memorizing, and it increases word intelligence. In the same source, Orlando and Katherine (2010) said that Word Detective is a strategy that helps the students to decode words by knowing the relationship between words they already know and new unknown words. Also, Hanson and Padua (2011) stated that Word Detective strategy helps the students to uncover the meaning of words by using the context clues, which means "looking for clues" in the content around the world.

Word Detective strategy is a strategy that uses a graphic organizer and word detective notebook in its implementation. Jayanti (2013:2) mentioned that Word Detective strategy is the strategy that helps students see the connections of words they already know in their native language or among words they learn in English that build networks of meaning and increase their academic vocabulary recognition exponentially. In addition, Elliott et al. (2002) add that keys in the implementation of strategy in vocabulary mastery is the using of word detective notebook and graphic organizer. For additional, they stated that the graphic organizer includes both words and visual. It presents information in concise ways that highlight the organization and relationships of concepts. Teaching with

graphic organizers encourages students to actively participate in the learning process. These tools should be used in vocabulary mastery, it is an effective way to help students to think about words in a new and different way. In line with it, McCarteen (2007) mentioned that vocabulary notebook encourages students to continue learning outside of class. Very often students' own vocabulary note-taking consists only of writing translation of single words in lists, but it can be much more varied than this, including the other clues of the word. Good vocabulary notebook activities show students what is worth writing down and give ideas for various ways of organizing vocabulary notebook.

It can be said that Word Detective is an engaging strategy that helps students to find out the unknown words by recognizing relationships between the words that they already know and the words that they will know or the new words, it is kind of game quiz that provides a good opportunity to develop students' vocabulary mastery especially in defining words. Ask the students to read the text then they will come across some words they do not know. These words are called unknown words. It is important to learn the meaning of unknown words to understand the sentence or paragraph of the text. Looking up the meaning of a word in a dictionary is one way to better understand. The Word Detective strategy helps the students to find out the meaning of their unfamiliar words and increase their vocabulary mastery.

2.3. *Teaching Vocabulary*

Vocabulary is one of the important components of English. It is integrated into English skills; they are Listening, Writing, Speaking, and Reading. The students can use those four skills if they have sufficient vocabulary. Thus, to make students understand English, Vocabulary should be taught.

Nation (2001) in Rahmawati (2012: 20) stated that there are two kinds of vocabulary. They are perceptive and productive vocabulary. Receptive vocabulary refers to the words that native speakers and foreign learners recognize and understand but hardly ever use, it is used passively in either listening or reading. Productive vocabulary is utilized actively either in speaking or writing.

To be effective, vocabulary instructions should provide both good definition and illustration of how words are used in a natural context. A teacher has an important role in Teaching Vocabulary. She or he will maintain the students to achieve the learning goals.

Ur (1991) mentioned that there are some vocabulary items, it can be seen as follow:

a. Grammar

b. Collocation

c. Meaning of word

d. Word relationship

e. Word formation

According to Harmer (2001), Vocabulary is armed with the knowledge of word meaning, how words extend their use, how to word combine and the grammar of words.

a. Word Meaning

The least problematic issue of Vocabulary is meaning. What a word means is often defined by its relationship to other words. Such as synonym, antonym, and many else.

b. Extending Word Use

Words do not just have a different meaning, however. They also are stretched to fit different contexts and different uses.

c. Word Combination

Although words can appear single items which are combined in a sentence, they also occur in two or more item groups. They often combine with each other. Word combination (also known as collocation) is immediately apparent that while some words can live together, others cannot.

d. The Grammar of Words

A key middle ground where words and phrases on the one hand and grammar on the other meet up is through the operation of word classes or

parts of speech, such as noun and adjective. The same true for such classes as verbs or determiners or prepositions.

Furthermore, Sarwono and Purwanto (2013) stated that there are many ways to learned Vocabulary. Some of them are starting from: learning from the roots of the words, prefixes and suffixes, and dictionary.

a. Knowing the roots

Knowing the roots help the students to grasp the meaning of words before looking them up in the dictionary.

b. Learning prefixes and suffixes

Learning the prefixes and suffixes help the students to determine the meaning of words. The prefix is a letter or group of letters added to the beginning and suffix is a letter or group of letters added to the end.

c. Dictionary use

Using dictionaries can be helpful to learn new words.

According to Cameron (2001), two key ideas for teaching that have emerged are that the linking of words and meaning in connected networks can be exploited for meaning and memorizing, and that recycling previously met words in varied context and activities is essential to keep learned words active. In line, Hanson and Padua (2011) mentioned that students' vocabulary increases when they are exposed to new words through various language experiences. In addition, when students are exposed to a wide variety of reading they learn different types of vocabulary.

2.4. Teaching Vocabulary using Word Detective Strategy

Vocabulary can be effectively taught by presenting each word in student-friendly language, enabling students to make connections between the new word and their world knowledge. The Word Detective takes seriously the task of finding students "suspects" or new unknown words. Word Detective strategy will make students active, interesting, also motivated in understanding the meaning of

words. This strategy will benefit students for exploring the new vocabulary without much memorizing and it increases students' knowledge of vocabulary that they had never known. Ainslie (2002) proposed a vocabulary strategy that encourages students to find out the meaning of unknown words, it can be done by using the Word Detective strategy. To make it clear, he also mentioned the steps to apply this strategy in the classroom as follow:

a. Students have their own individual list of unknown words. They add to this list every time they find an unknown word in the text.

b. Students write clues about their word, such as the sentence that the word was in, the definition of that word from the dictionary, and it's part of speech.

c. Students also add other word clues from the text that might help them find out the meaning of their unknown word. This list of clues goes into their "detective notebook"

d. Every week, two of students get the job of being the lead detectives for the classroom. They each pick one word from their suspect list.

e. Then they make a graphic organizer showing their word, its' definition, it's part of speech, the sentence it was found in, and other contextual clues that they found.

2.5. *The Advantages of Using Word Detective Strategy*

There are some advantages of using the Word Detective strategy, Riri et.al (2014:11) mentioned some advantages of using Word Detective strategy in teaching and learning process as follow:

a. Students have the ability to interpret the meaning of a sentence without having known all of the words.

b. By using the Word Detective strategy, the students will enjoy competing with their peers in the learning process.

c. This strategy provides the learners using plenty of opportunities to enlarge vocabulary and practice their English.

d.   The students get the meaning of word easier without extremely memorizing each word.

3. Research Method

This research is conducted at Forestry Vocational School of Pekanbaru. The research is a quantitative research that uses quasi-experimental design. Cohen et al (2000: 214) flatten the use of quasi-experiment can be represented as

Table 1. The Research Design

Group	Pre-test	Treatment	Post-test
Experimental	O1	X	O3
Control	O2	-	O4

Where:

X: Treatment

O1: Pre-test of the experimental group

O2: Post-test of the experimental group

O3: Pre-test of the control group

O4: Post-test of the control group.

It is necessary to assign intact groups the experimental and control treatments, administers a pretest to both groups, and conducts experimental treatment activities with the experimental group only, and then administers a posttest to assess the differences between the two groups. The two groups believed to be the same are the two variables (X and Y). Here, the effect of using the Word Detective strategy as an independent variable (variable X) and students' vocabulary mastery as a dependent variable (variable Y). This research used experimental and control classes. Therefore, the experimental class is treated by using Word Detective Strategy and this class is provided with pre-test, treatment, and post-test. The control class is treated without using Word Detective Strategy. The population of this research is the tenth-grade students of Forestry Vocational School in Pekanbaru which consisted of 3 classes, the total of them are 100

students. The technique of sampling used in this research is cluster random sampling. The classes are X Meranti as an experimental class that consisted of 34 students and X Mahoni as a control class that consisted of 33 students. So, 67 students are representative enough to be a sample of the research. The data is collected using the test. The writers treat the students by using the Word Detective strategy. The writers do treatment in the experimental class for five meetings. After that, the writers give both classes a post-test to know the significant difference of the using Word Detective strategy on students' vocabulary mastery at the tenth-grade students of Forestry Vocational School of Pekanbaru. Meanwhile, the writers use the statistical calculation of independent sample t-test formula and the data are calculated by using SPSS program 19 version.

4. Findings and Discussion

4.1. Students Vocabulary Mastery Taught by Using Word Detective Strategy

The data of students' vocabulary mastery taught by using Word Detective Strategy were gotten from pretest and posttest of X-Meranti as an experimental class that the total of sample here was 34 students, but the writer only took 33 students as a sample from this class in order to the total students of both experimental and control classes were equal.

Table 2. Students' Scores of Pretest and Posttest in Experimental and Control Class

No	Students	Experimental Class			Control Class		
		Pre-test	Post-test	Gain	Pre-test	Post-test	Gain
1	Student 1	85	90	5	70	75	5
2	Student 2	60	75	15	70	80	10
3	Student 3	65	80	15	80	80	0
4	Student 4	55	85	30	40	55	15
5	Student 5	60	80	20	65	75	10
6	Student 6	55	75	20	75	75	0

7	Student 7	75	75	0	45	60	15
8	Student 8	50	75	25	60	65	5
9	Student 9	65	75	10	55	65	10
10	Student 10	45	75	30	75	80	5
11	Student 11	40	75	35	45	60	15
12	Student 12	55	80	25	70	75	5
13	Student 13	60	80	20	55	65	10
14	Student 14	45	75	30	45	60	15
15	Student 15	80	80	0	70	80	10
16	Student 16	70	90	20	55	60	5
17	Student 17	50	75	25	70	75	5
18	Student 18	60	80	20	40	55	15
19	Student 19	45	70	25	60	65	5
20	Student 20	60	80	20	60	65	5
21	Student 21	50	70	20	70	80	10
22	Student 22	80	85	5	75	80	5
23	Student 23	60	75	15	60	65	5
24	Student 24	75	75	0	55	65	10
25	Student 25	45	65	20	65	65	0
26	Student 26	85	90	5	75	80	5
27	Student 27	85	85	0	55	65	10
28	Student 28	50	75	25	75	80	5
29	Student 29	45	60	15	55	60	5
30	Student 30	80	80	0	60	65	5
31	Student 31	65	85	20	65	65	0
32	Student 32	85	90	5	60	65	5
33	Student 33	75	75	0	60	65	5
Total		2060	2580	520	2035	2270	235
Mean		62.42	78.18	15.76	61.67	68.79	7.12

The total of pretest and posttest in both classes were significantly different. The total score of pretest experimental class is 2060, while the highest score is 85 and the lowest is 40. The total score of the posttest in experimental class is 2580, while the highest score is 90 and the lowest is 60. Then, the total score of pretest in the control class is 2035, while the highest score is 80 and the lowest is 40. The total score of posttest in control class is 2270; while the highest is 80 and the lowest is 55. The difference gain in experimental class from pretest and posttest is 520 while in control class is 235, there is the increasing score from pretest to posttest in both experimental and control class. But, an experimental class shows a higher gain than in the control class. Here, the result of posttest from both experimental and control class is the difference. There is gain in both classes, but the experimental class shows a significant gain in learning. It could be seen from the students' posttest score that shows in the experimental class is better than in the control class. It means that the students' score taught by using Word Detective strategy is better than taught without using it.

Table. 3 Independent Sample T-test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	4.040	.049	5.024	64	.000	9.394	1.870	5.658	13.130
Equal variances not assumed			5.024	62.296	.000	9.394	1.870	5.656	13.132

Based on the score of t-test (5.024), it shows that there is a significant difference on the students who taught by using Word Detective Strategy. It is proved by the finding t-test (5.024) which is greater than t table at 5% level of significance (1.997), while in the level significance of 1% (2.654). It can be stated that $1.997 < 5.024 > 2.654$.

5. **Conclusion**

Based on the research finding it can be concluded that teaching Vocabulary by using Word Detective Strategy at the tenth-grade students of

Forestry Vocational School of Pekanbaru is better than without using it. Thus, there is a significant difference in students' vocabulary mastery taught by using Word Detective strategy at Forestry Vocational School. In pretest, the mean score in the experimental class is 62.42 while in control class is 61.67. After treatment and posttest, it showed there is gain in both classes. It found the mean score in the experimental class was 78.18 while in control class was 68.79. Meanwhile, the significance level of 5% was 1.997 and significance level of 1% was 2.654. It stated that $1.997 < 5.024 > 2.654$. So, the null hypothesis (Ho) is rejected, while the alternative hypothesis (Ha) is accepted. It can be concluded that there is any difference between students' vocabulary mastery that taught by using and taught without using Word Detective strategy at Forestry Vocational School of Pekanbaru and it can be said that Word Detective strategy is an effective strategy in Teaching Vocabulary.

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