

THE IMPACT OF USING THESAURUS PROGRAM IN MICROSOFT WORD TOWARDS STUDENTS' VOCABULARY MASTERY

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Abstract

The goal of this thesis was to find out the impact of using thesaurus program in Microsoft word towards students' vocabulary mastery in grade eight of SMP Wiyatama Bandar Lampung in academic year 2013/2014. Thesaurus program was used to make the students interested in learning English. It was as a media or technology to enrich their vocabulary.

Data were collected by incorporating two pre-tests and two post-tests in experimental group and control group. Treatment using Thesaurus program in Microsoft word was administered in experimental group, while control group received traditional teaching. Data analysis was attempted using t-Test for two group design.

After giving the tests, analyze the score was the next step to get the result. Result indicated that p-value 1% = 2,65, 5% = 2,00, and t-value = 5,46. It means p-value is smaller than t-value. Therefore, it could be inferred that null hypothesis (Ho) was rejected and alternative hypothesis (Ha) was accepted. The conclusion that can be drawn based on the explanation above was: by using thesaurus was more effective than traditional teaching.

Keywords: Technology, Thesaurus program in Microsoft word, vocabulary mastery.

1. INTRODUCTION

Vocabulary mastery is very important in learning English because it is a set of rule that has to be mastered by students in studying English both in oral and in written form. The traditional way of learning vocabulary by more copying and remembering has shown to be less than effective.

Not being able to find the words you need to express yourself is the most frustrating experience in speaking another language. The learners need many vocabularies to speak English better and the vocabulary that is appropriate for their sentence. That is why the learners need a tool that can be used to find out the word such as dictionary or electronic dictionary.

Now, the technology is becoming increasingly important in both our personal and professional life, and the learners are using technology more and more. Thesaurus program is a program in a Microsoft word that I use as a media for helping students to learn vocabulary and to find out the synonym or antonym based on the word that they find. In this program students are easier to find out the word.

2. THE OBJECTIVES AND BENEFITS OF USING THESAURUS

Concerning to the research problem, there are some objectives that can be found for this research. The first is to find out the impact of using thesaurus program in Microsoft word towards students' vocabulary mastery. The second objective is to make students know how to use the thesaurus program. The third objective is to know the students' improvement in grade eight in learning process after using thesaurus program and to extend the students' vocabulary by using thesaurus program. It provides students with deep understanding of words.

There are some benefits of the study. The first benefit is the students are able to use technology to learn English specially thesaurus program in Microsoft word. The second benefit is that they are able to use

vocabulary correctly and appropriately in sentences. The last benefit is that they get many new vocabularies from thesaurus program.

3. LITERATURE REVIEW

Technology makes us easier to learn by hearing and seeing to more knowing the meaning of language itself. (Rivers, 1987). Since 1960s and 1970s, blackboard, tape recorder, language laboratories, and video have been used as an innovation of technology (Dudeny and Hockly, 2007). Increasingly, technology is also used to support the individual's language learning process and to extend language learning opportunities outside the classroom (Harwood as cited in Chapelle, 2001) What is a contender for a methodology is central to the world of technology and language learning. This is the form of blended learning (Motteram as cited in Motteram and Sharma, 2009).

A thesaurus is a tool that you can use to search for synonyms and antonyms of other words. You can find this program in many versions of Microsoft word such as Microsoft word 2003, 2007, and 2010. The location of the thesaurus program depends on which version of Microsoft word they are using. Using thesaurus program in Microsoft word can help the learners add more variety to their vocabulary mastery and can help them to find out the best word because it can suggest other words and phrases with a better understanding.

Thesaurus is kind of dictionary that has a relation from a word to another word (Nakayama, Hara, and Nishio, 2007). Thesaurus is more suited to the intermediate levels than to the pre-intermediate level learners because it is used to compare how many vocabularies that intermediate and pre-intermediate levels have (Dudeny and Hockly, 2007). More, specifically, a thesaurus is a book containing a classified list of synonyms, organized to help people find the word they want but cannot think of (Kumar and Murthy, 2010). A thesaurus can do wonders for writing projects.

Vocabulary is very needed to help students for better communication (Pikulski and Templeton, 2004). Beside technology, translation technique can be used to teach students' vocabulary (Wallace, 1982). Students' vocabulary knowledge is a building process that occurs over time as they make connections to other words, learn examples and non-examples of the word and related words, and use the word accurately within the context of the sentence (Snow, Griffin, & Burns, 2005).

Vocabulary is the basic factor necessary for mastering a language (Zhang, 2011). In Indonesia, in particular, research studies on vocabulary are needed to fully understand the role of vocabulary in second or foreign language learning and to overcome teaching and learning problems related to vocabulary acquisition (Cahyono, Y. B. and Widiyati, U. as cited in Mukminatien, 1994).

Many technologies can be used to solve more than one type of problem (Thompson et al, 2004). The choice of technology should be based on how well the tool serves classroom learning and teaching needs. To improve the effectiveness and efficiency, teachers should not only understand the students' difficulties of word study, but also use some useful strategies and methods (Pan and Xu, 2011). The teachers have to give more care about the problem that makes students difficult to learn vocabulary and more creative in teaching vocabulary because it makes students become more interested in studying (Thornbury, 2002).

4. RESEARCH METHOD

In this research, there were two variables. Microsoft word (X) was the independent variable, and the students' vocabulary mastery (Y) was the dependent variable. The research was done in the SMP Wiyatama Bandar Lampung that was located at Jl. Panglima Polem Gg. Sawo No. 37, Segala Mider, Bandar Lampung.

The population was the group of interest to the researcher. The population of this research was all of the students in second semester of grade eight. There were 4 classes but I took two classes as the samples of the research. They were VIII D as an experimental group and VIII C as a control group. Since the total number of population was quite large, the sampling technique was applied in this research. The sampling technique was a cluster sampling.

There were several steps of procedure for this research. The first step was determining the research subject. The second step was taking the sample. It was all the students of VIII C and VIII D which consisted of 34 students respectively. The test instrument was arranged by a set of multiple choice tests. Then, the pre-test of vocabulary was given. The control group was taught by using traditional teaching method and the experimental group was thesaurus program in Microsoft word. The post-test was given and

taught by using the result of the tests was calculated to find out the impact. The last was reporting the result of the research.

The tests consisted of 25 items and each item consisted to four options a, b, c and d. The total score was getting with calculated the right answers of 25 questions and times by four. The highest score was one hundred and the lowest score was zero. Before did the test, I designed the research instrument first. It was designed based on the students' books and LKS of junior high school. The aspect of the research tests were concerned in the adjective, noun, adverb and verb. Multiple choice questions have a great advantage of being easy to mark. (Harmer, 2007).

In this research, the data were collected incorporating tests to measure the students' vocabulary mastery. A test was a vocabulary test. Vocabulary tests should therefore be valid and reliable. A valid vocabulary test is one which tests what are supposed to be tested. The formula of t-Test is applied to analysis the data.

$$t = \frac{I Mx - My I}{\sqrt{\left(\frac{\sum x^2 + \sum y^2}{Nx + Ny - 2}\right) \left(\frac{1}{Nx} + \frac{1}{Ny}\right)}}$$

df = nx + ny - 2

Figure 4.1 Formula of t-Test

5. FINDINGS AND DISCUSSIONS

The scores of pre-test and post-test of experimental group are presented in table 5.1. The table presents the score of experimental group that uses Thesaurus Program in Microsoft Word. N is the number of subjects, Y₁ is the score of the pre-test, Y₂ is the score of the post-test, Y is the score from the post-test (Y₂) minus pre-test (Y₁), and Y₂ is the score from Y.

Table 1: Result of pre-test and post-test of experimental group (Y)

Subjects (N)	Pre-Test (y ₁)	Post-Test (y ₂)	Y	Y ₂
1. Adela Septiana	32	80	48	2340
2. Ahmad Fauzi	44	72	28	784
3. ArjunPrasetyo	36	48	12	144
4. ArsidaManulang	32	72	40	1600
5. Aviv Abdullah	40	84	44	1936
6. BambangSlamet S	48	76	28	784
7. Chenty Julia Fangky	48	76	28	784
8. DeaGustinSuliasti	52	80	28	784
9. DendiSaputra	52	84	32	1024
10. DiahAyuNurhidayah	40	80	40	1600
11. DitaMeisaPutri	40	80	40	1600
12. EviYulianti	52	76	24	576
13. FikriRinuPratama	28	76	48	2304
14. HerningTriyanti	52	84	32	1024
15. Ira Wulandari	36	76	40	1600
16. JuniSetiawan	44	56	12	144
17. M. FuadiThoha	40	72	32	1024
18. Mega KurniaPutri	36	92	56	3136
19. Muhammad Rizky	40	80	40	1600
20. Muhammad Tirta A	52	56	4	16
21. MuliadiSersa	52	72	20	400

22. MutiaraRindu	56	84	28	784
23. PancaPriyanto	36	72	36	1296
24. Rahma Family	36	80	44	1936
25. RakaAndreas p	44	68	24	576
26. RegginaJeane S	36	84	48	2304
27. RendiPratama	48	72	24	576
28. RidoNovanto	44	72	28	784
29. RobiWijaya	44	68	24	576
30. TesyaSyafira P	40	76	36	1296
31. TikaDinanda Sari	48	76	28	784
32. VioDitaKusuma	32	80	48	2304
33. Yogi Setiawan	44	72	28	784
34. YulisaPutri	44	84	40	1600
N = 34	y₁ = 1448	y₂ = 2408	y = 1112	y₂ = 40768

Based on table above, the highest score is 56 and the lowest score is 28. It is taken from the score of the pre-test (y_1). From the score of the post-test (y_2), the highest score is 92 and the lowest score is 48. There are 34 numbers of subjects that call N. The total score of the pre-test of experimental group (y_1) is 1448. The total score of the post-test (y_2) is 2408. The score of experimental group (y) was gained from the score of the post-test (y^2) which is reduced by the score of the pre-test (y^1), after that the summary of the score of experimental group (y) or y is 1112. The square score of y (y^2) is 40768.

The scores of the pre-test and post-test of control group are presented in table 5.2. The table presents the score of control group that uses Traditional Method. N is the number of subjects, X_1 is the score of the pre-test, X_2 is the score of the post-test, X is the score from the post-test (X_2) minus pre-test (X_1), and X_2 is the score from X .

Table 2: Result of pre-test and post-test of control group (X)

Subjects (N)	Pre-Test (x_1)	Post-Test (x_2)	X	X_2
1. Ahmad Gifari	52	64	12	144
2. AldianRafiq	32	52	20	400
3. Amalia Lie Ichwani	40	48	8	64
4. Ana Trolia	44	56	12	144
5. Anugrah AnandaNauli	60	52	-8	64
6. AstriyanaSaputri	36	44	12	144
7. DesiCici Indah P	40	52	8	64
8. Desna RahmaDiyanti	40	52	8	64
9. Devid Garcia Aranda	32	56	24	576
10. Dian Yudha P	48	60	12	144
11. DindaAyuPutri	32	60	28	784
12. Ferizal	36	68	32	1024
13. Firman Sandi P	36	32	-4	16
14. Galih Tri Ayoga	32	40	8	64
15. IvanaRizka R	24	36	12	144
16. Julius Alvin P	32	84	52	2704
17. Lily Indriani	32	56	24	576
18. M. Juliansyah	32	48	16	256
19. Muhammad Doni	48	56	8	64

20. NoviesaPurwasih	32	60	28	784
21. Nurhayati	24	36	12	144
22. Rama Yusuf	44	52	8	64
23. RegitaDwi S	40	68	28	784
24. RengganingTyas	44	56	12	144
25. RestiYulianti	36	44	8	64
26. RidoArio W	44	48	4	16
27. RizkiTantowi	40	60	20	400
28. RizkyPangestu	40	48	8	64
29. Roby Saputra	40	48	8	64
30. Shelly Rosandia	40	56	16	256
31. Sri Wahyuni	40	52	12	144
32. TamamuNurkholis	20	60	40	1600
33. YayangSuci Tamara	44	56	12	144
34. Yogi AgungPratama	36	44	8	64
N = 34	x₁ = 1292	x₂ = 1804	x = 508	x₂ = 15075

From table above, the highest score is 60 and the lowest score is 20. It is taken from the score of pre-test (x_1). From the score of the post-test (x_2), the highest score is 84 and the lowest score is 32. There are 34 numbers of subjects that call N. The total score of the pre-test of experimental group (x_1) is 1292. The total score of the post-test (x_2) is 1804. The score of experimental group (y) was gained from the score of the post-test (x_2) which is reduced by the score of the pre-test (x_1), after that the summary of the score of experimental group (x) or x is 508. The square score of y (x^2) is 1575.

The calculation of pre-test and post-test of control group are presented in figure 4.2. My equal to y is divided by N is the formula that is used to find out the mean of experimental group. My is the mean of experimental group, y is the summary of the score of experimental group, and N is the number of subjects. y^2 equal to y^2 minus (y)² is divided by N is the formula to get the score of y^2 . y^2 is the total number of the post test, (y)² is the total number of y and it is quadrate, and N is the total number of subjects.

$$\begin{aligned} My &= \frac{\sum y}{N} \\ My &= \frac{1112}{34} \\ My &= 32,70 \\ y^2 &= y^2 - \frac{(\sum y)^2}{N} \\ y^2 &= 40768 - \frac{(1112)^2}{34} \\ y^2 &= 40768 - \frac{1236544}{34} \\ y^2 &= 40768 - 36368,94 \\ y^2 &= 4399,06 \end{aligned}$$

Figure 2. Calculation of pre-test and post-test of experimental group

Based on figure above, the total score of control group (y) is 1112 and the number of subject (N) is 34. 1112 is divided by 34 equal to 32,70. So, the result of the mean of control group (My) is 32,70. The total number of experimental group times 2 (y^2) is 40768, (y)² is the total number of y and the score is (1112)², the number of subject (N) is 34. 40768 minus (1112)² is divided by 34 equal to 4399,06. So, the result of y^2 for t-Test of control group is 4399,06.

The calculation of the pre-test and post-test of control group are presented in figure 4.2. Mx equal to x is divided by N is the formula that is used to find out the mean of control group. Mx is the mean of control group, x is the summary of the score of control group, and N is the number of subjects. x^2 equal to x^2

minus $(\sum x)^2$ is divided by N is the formula to get the score of x^2 . $\sum x^2$ is the total number of the post test, $(\sum x)^2$ is the total number of x and it is square, and N is the total number of subjects.

$$\begin{aligned}
 Mx &= \frac{\sum x}{N} \\
 Mx &= \frac{508}{34} \\
 Mx &= 14,94 \\
 x^2 &= \sum x^2 - \frac{(\sum x)^2}{N} \\
 x^2 &= 15075 - \frac{(508)^2}{34} \\
 x^2 &= 15075 - \frac{258064}{34} \\
 x^2 &= 15075 - 7590 \\
 x^2 &= 7484,88
 \end{aligned}$$

Figure 3. Calculation of pre-test and post-test of control group

Based on figure above, the total score of control group ($\sum x$) is 508 and the number of subject (N) is 34. 508 is divided by 34 equal to 14,94. So, the result of the mean of control group (Mx) is 14,94. The total number of experimental group times 2 ($\sum x^2$) is 15075, $(\sum x)^2$ is the total number of x and the score is 508, the number of subject (N) is 34. 15075 minus $(508)^2$ is divided by 34 equal to 7484,88. So, the result of x^2 for t-Test of control group is 7484, 88.

The calculation of t-Test of experimental and control group are presented in figure 4.3. Mx is the mean of control group, My is the mean of experimental group, x^2 is the score of control group for t-Test, y^2 is the score of experimental group for t-Test, Nx is the number of subject of control group, and Ny is the number of subject of experimental group.

$$\begin{aligned}
 t &= \frac{|Mx - My|}{\sqrt{\left(\frac{\sum x^2 + \sum y^2}{Nx + Ny - 2}\right) \left(\frac{1}{Nx} + \frac{1}{Ny}\right)}} \\
 t &= \frac{|14,94 - 32,70|}{\sqrt{\left(\frac{7484,88 + 4399,06}{34 + 34 - 2}\right) \left(\frac{1}{34} + \frac{1}{34}\right)}} \\
 t &= \frac{17,76}{\sqrt{\left(\frac{11883,94}{66}\right) \left(\frac{2}{34}\right)}} \\
 t &= \frac{17,76}{\sqrt{180,06 \left(\frac{2}{34}\right)}} \\
 t &= \frac{17,76}{\sqrt{\frac{360,12}{34}}} \\
 t &= \frac{17,76}{\sqrt{10,59}} \\
 t &= \frac{17,76}{3,25} \\
 t &= 5,46 \\
 df &= nx + ny - 2 \\
 &= 34 + 34 - 2 \\
 &= 66 \\
 p\text{-value} &= 1\% = 2,65 \\
 &= 5\% = 2,00 \\
 t\text{-value} &= 5,46. \text{ Therefore, } p < t \longrightarrow 2,65 / 2,00 < 5,46
 \end{aligned}$$

Figure 4. Calculation of t-Test of experimental group and control group

Based on figure above, the calculation is t equal to 14,49 (Mx) minus 32,70 (My) divided by root $7484,88 (x^2)$ plus 4399,06 (y^2) is divided by 34 (Nx) plus 34 (Ny) minus 2 times. 14,94 minus 32,70 is 17,76 (the score is always positive) is divided by root $7484,88$ plus 4399,06 equal to 11883,94 is divided by 34 plus 34 minus 2 is 66, 11883,94 is divided by 66 equal to 180,06 and times 2 is divided by 34 equal to $\sqrt{10,59}$. 17,76 is divided by $\sqrt{10,59}$ is 5,46.

The formula to find out degree of freedom (df) is total number of subject of control group (Nx) plus total number of subject of experimental group (Ny) minus 2. The result of degree of freedom is 66. Furthermore, see the table of p-value. There are two result of p-value. The result of 1% is 2,65 and the result of 5% is 2,00.

Finally, compare the result of t-value and p-value. The score of p-value is 2,65 / 2,00 and t-value is 5,46. The conclusion of them is p-value smaller than t-value. So, the research is successful.

We already see the score and the result of the students in the experimental and control group. Their score are increasing but in the experimental group the increase of score is higher than the score in the control group.

The students of experimental group who get the scores of 28, 32, and 36 in pre-test have to get the scores of 72 to 80 in the post test, the students who get the scores of 40, 44, and 48 have to get the scores of 72 to 84, and the students who get the scores of 52 and 56 have to get the scores of 80 to 84.

The students of control group who get the scores of 20 and 28 in the pre-test have to get the scores of 36 in the post-test, the students who get the scores of 32 and 36 have to get the scores of 40 to 68, and the students who get the scores of 40, 44, and 48 have to get the scores of 48 to 68.

6. CONCLUSIONS AND RECOMMENDATIONS

The total score of the pre-test of experimental group (y_1) is 1448. The total score of the post-test (y_2) is 2408. The total score of the post-test minus pre-test (y) is 1112. The square score of y (y^2) is 40768. The result of the mean is 32,70. The result of y^2 is 4399,06. The total score of the pre-test of control group (x_1) is 1292. The total score of the post-test (x_2) is 1804. The total score of the post-test minus pre-test (x) is 508. The quadrature score of y (x^2) is 15075. The result of the mean is 14,94. The result of x^2 is 7484,88. The result score of t-Test is 5,46. The degree of freedom (df) is 66. p-value 1% is 2,65 and 5% is 2,00. The result scores of pre-test and post-test of experimental group (y) have significant progress. In the pre-test, the students get low scores but in the post-test they get higher scores than before. The result scores of pre-test and post-test of control group (x) have lower progress than the students score in the experimental group. The result score of t-Test (p-value) is smaller than t-value ($p < t$).

There is significant difference between the students' progress in the experimental and control group. The students who are taught by using traditional teaching method are lower than those who are taught by using thesaurus program in Microsoft word. So, the conclusion is that there is the impact of using thesaurus program in Microsoft word towards students' vocabulary mastery in grade eight of SMP Wiyatama Bandar Lampung.

Dealing with the conclusion of this research above, several recommendations are offered. These are intended to teachers and students. Teacher should use the technology especially thesaurus program in Microsoft word as a media in learning English vocabulary to enrich the students' vocabulary, the teacher should encourage the students to be active in teaching and learning process in order to use thesaurus in mastering vocabulary, and the teacher should create enjoyable and memorable situation in teaching and learning process. Students are hoped to be more creative in taking part in learning vocabulary by using thesaurus and the students should use the vocabularies that they get from thesaurus in their activities or daily life.

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