

THE INFLUENCE OF TEACHING PREFIXES AND SUFFIXES IN CONTEXT ON DEVELOPING STUDENTS' ENGLISH VOCABULARY AT SMAN 2 GARUT

Yudi Kurniadi

LP3I Tasikmalaya/ Politeknik LP3I Kampus Tasikmalaya Jalan Ir. H. Djuanda KM 02 No.
106 Rancabango Tasikmalaya, yudikurniadi@plb.ac.id /kurniadi.freshzz@gmail.com

ABSTRAK

Pembelajaran kosakata melalui morfem dapat meningkatkan keterampilan pemerolehan kosakata yang bermakna. Siswa belajar menebak arti kata dengan mencari awalan dan akhiran disertai dengan bantuan konteks. Siswa menganalisis awalan dan akhiran dalam kata-kata. Kemudian, siswa menganalisis petunjuk konteks lain seperti *part of speech* di sekitar kata-kata tersebut. Tujuan dari penelitian ini adalah untuk mengetahui perbedaan yang signifikan antara pengaruh pengajaran prefiks dan suffiks dalam konteks dan tanpa konteks terhadap perkembangan kosakata bahasa Inggris siswa. Penelitian ini menggunakan studi kuantitatif dengan metode eksperimen. Penelitian ini dilaksanakan di SMAN 2 Garut yang berlokasi di Jalan Guntur No. 3 Leles Garut. Populasi dalam penelitian ini adalah siswa kelas dua SMAN 2 Garut yang berjumlah delapan kelas. Penulis memilih dua kelas untuk dijadikan sampel penelitian, yaitu kelas XI IPA 1 sebagai kelompok eksperimen dan kelas XI IPS 1 sebagai kelompok kontrol. Jumlah sampel seluruhnya adalah 66 siswa. Pre-test dan post-test digunakan untuk mengumpulkan data penelitian. Analisis butir soal pilihan ganda digunakan untuk menguji validitas data. Untuk mengetahui reliabilitas data, penulis menggunakan metode split-half seperti yang dikemukakan oleh Suharsimi Arikunto (2009:93). Karena data berdistribusi normal, maka digunakan rumus uji-t untuk menganalisis data. Rata-rata nilai keragaman siswa menunjukkan bahwa kelompok eksperimen mendapat 40 dan kelompok kontrol mendapat 30,15. Artinya ada kemajuan positif pada kelompok eksperimen setelah diberikan perlakuan. Berdasarkan analisis data, $t_{hitung} = 3,5$ dan $t_{tabel} = 1,99$. Karena $t_{hitung} = 3,5$ berada di luar daerah penerimaan H_0 , antara $t_{tabel} = -1,99$ dan $1,99$, maka H_a diterima. Artinya H_a diterima, ada perbedaan pengaruh yang signifikan antara pengajaran prefiks dan sufiks dalam konteks dan tanpa konteks terhadap perkembangan kosakata bahasa Inggris siswa kelas dua SMAN 2 Garut pada tingkat signifikansi sembilan puluh lima persen (95%).

Kata Kunci: Awalan, Akhiran, Konteks, Kosakata

ABSTRACT

Vocabulary through morphemes provides meaningful vocabulary acquisition skill. Students learn to guess the word meaning by looking for prefixes and suffixes in context. The students analyze prefixes and suffixes within the words. Then, the students analyze other context clues such as part of speech around the words. The purpose of this research is to uncover the significant difference between the influence of teaching prefixes and suffixes in context and

without context toward students' English vocabulary development. This research uses quantitative study in line with experimental method. This research was held in SMAN 2 Garut located at Jalan Guntur No. 3 Leles Garut. The population of this research is eight classes of students in the second grade of SMAN 2 Garut. The writer chooses two classes to be sample of the research, they are class XI IPA 1 as experimental group and class XI IPS 1 as the control group. The total numbers of the sample are 66 students. Pre-test and post-test are used to collect research data. Analisis butir soal pilihan ganda is used to test the validity of the data. To find out the reliability of the data, the writer uses split-half method as proposed by Suharsimi Arikunto (2009: 93). Because the data distribution is normal, t-test formula is used to analyze the data. Students' diversity scores averages show that the experimental group gets 40 and the control group gets 30.15. It means that there is positive progress of the experimental group after having the treatment. Based on the data analysis, $t_{counted} = 3.5$ and $t_{table} = 1.99$. Because $t_{counted} = 3.5$ is out of H_0 acceptance area, between $t_{table} = -1.99$ and 1.99 , so that H_a is accepted. It means that H_a is accepted, there is significant difference of influence between teaching prefixes and suffixes in context and without context toward students' English vocabulary development in the Second Grade Students of SMAN 2 Garut on ninety five percent (95%) significance level.

Keywords: Prefixes, Suffixes, Context, Vocabulary

INTRODUCTION

Knowledge of words is one of the important parts in conducting oral and written communication. We can express meaning, thought, idea, and opinion, we can understand the meaning of words, and we can understand English textbook and lecturer's explanation if we have knowledge of words. Therefore knowledge of words is needed in oral and written communication.

Vocabulary is one language element that links the four basic language skills: listening, reading, speaking, and writing. To learn the language skills, students need to study vocabulary. We should have rich vocabulary as the main basic to be able to comprehend English text. If we only have limited vocabulary, we will not understand English text effectively.

The researcher did the interview to two English teachers of SMAN 2 Garut. They told much information about the English teaching and learning process of their classes. The first teacher said that the English students' ability was average. There were some students had a good ability or had a basic of English, but some others were still low yet. Whereas, the second teacher said that the students' vocabulary mastery was low. They both explained that the students were difficult to distinguish parts of speech, so they were confused to use the correct form of prefixes or suffixes.

Basic English vocabulary needs 10 thousand vocabularies. The number of 10 thousand is standard in the world for those who are learning English. If an English learner has mastered 10 thousand words, then he or she was able to communicate in English. However, this amount is still felt quite heavy to be mastered. But the curriculum in Indonesia stated that the high school or high school graduates must master the vocabulary is very often used where the amount is 4,000 vocabulary. Therefore vocabulary is very important for foreign students in learning English.

When the students read a paragraph in reading passage, the students usually find out some unknown words. Some unknown words may contain prefixes and suffixes. Nagy and Anderson (1984) as in Susan M. Ebbers (2009:10) estimates that school texts contain 88.500 distinct words, each word has related form which meaning might be inferred through morphemic and contextual analysis.

Memorizing new words list is more popular than analyzing prefixes and suffixes for most foreign learners in learning vocabulary. The English language teachers often forget to explain how word structures are formed. They should explain that *sadness* is formed by *sad* (adjective) + the suffixes '*ness*' and that the suffixes '*ness*' can be used in forming other words such as *happiness* (noun). Yousef Sharif Tahaine (2010: 4) says:

“Students memorize the syntax of the language (i.e. phrases, clauses and sentences) without providing any kind of activities that help them understand how word structures are formed. This makes the learning process more difficult and burdens the students with the necessity of memorizing still more word forms resulted from the continuing different word-formation processes.”

Analyzing prefixes and suffixes would be powerful technique if the teacher use context in getting the meaning of the unknown word. Wysocki & Jenkins (1987) as in Susan M. Ebbers (2009:13) says “The use of context to infer the meanings of unknown words is more reliable when readers analyze both the context surrounding the word and the morphemes within the word.”

Learning prefixes and suffixes could help students to increase their vocabularies. This is supported by the previous researches. The first previous research is by Fenny Widyawati, Patuan Raja, Deddy Supriyadi about teaching suffixes to increase vocabulary mastery at 2nd grade of SMAN. This research was intended to investigate whether or not teaching suffixes could be used to increase students' vocabulary mastery and which

aspect of vocabulary increased the most after being taught through suffixes. This research was conducted at SMAN 1 Way Lima Lampung. The analysis of result showed that suffixes can increase students' vocabulary mastery.

The second previous research is by Karisma Erikson Tarigan and Margaret Stevani about Teaching Vocabulary Acquisition through Derivational Suffixes of SMP Santo Petrus Medan. This study is aimed to improve the students' vocabulary acquisition through derivational suffixes strategy. The subject of this study is the students of Class IX-1 of SMP Santo Petrus Medan. The result of the research indicates that there is a significant improvement of the students' vocabulary mastery through affixation strategy of Class IX-1 of SMP Santo Petrus Medan.

The third previous research is by Ro'aini and Fithrah Auliya Ansar about Prefix and Suffix Analysis in Relation with Students English Ability. The purpose of this research was to know how far is the students' abilities in using prefix and suffix. This research was conducted at the first semester of twelfth grade of SMK BLK Bandar Lampung. Based on the result of this research, the majority of correct prefix was *inter-* by 172 items, and the majority of correct suffixes were *-ment* and *-ion* by 139 items. Moreover, the majority of correct part of speech used in test was verb.

The fourth previous research is by Fotokian M and Rahmatipasand Z about teaching the prefixes and its effect on vocabulary learning of Iranian intermediate EFL students. This study investigates the relationship between teaching prefixes and its effect on vocabulary knowledge of Iranian intermediate EFL learners. Based on this aim, 60 students at intermediate level of English participated in this study. They were randomly assigned to an experimental and a control group each comprising 30 participants. Analysis of the results of independent sample t-test and two-way ANCOVA showed that the experimental group outperformed the control group significantly in the posttest. It was concluded teaching prefixes had a positive effect on learners' vocabulary knowledge.

The fifth previous research is by Intan Pradita Nizamudin Sadiq about developing student vocabulary worksheet by using affixes. This paper aims at describing the stages of developing vocabulary worksheet by using affixes by adopting the process of the same development research of Wutsqo. The results of this study are; 1) the aspect of validity has met the criteria development vocabualry student worksheet to learn the material

additive that has been prepared to have a very good quality, 2) practicality aspect has fulfilled the minimum criteria with certain notes on 21st century learning, 3) The results of the pre-test and post-test student learning augmentation material by using SVW has met the minimum criteria of improvement.

The differences are in the case of the purpose and the subject of the research. The purpose of this research is to uncover the significant difference between the influence of teaching prefixes and suffixes in context and without context toward students' English vocabulary development, with the subject of the research is class XI IPA 1 and XI IPS 1 . Meanwhile the purpose of the first previous research is to know how far is the students' abilities in using prefix and suffix. The second previous research is intended to investigate whether or not teaching suffixes could be used to increase students' vocabulary mastery and which aspect of vocabulary increased the most after being taught through suffixes, with the subject of the research is class XI social 1 of SMAN 1 Way Lima consisting of 29 students. The third previous research is aimed to improve the students' vocabulary acquisition through derivational suffixes strategy, with the subject of the research is the first semester of twelfth grade of SMK BLK Bandar Lampung. The fourth previous research is to investigate the relationship between teaching prefixes and its effect on vocabulary knowledge of Iranian intermediate EFL learners, and the fifth previous research is to describe the stages of developing vocabulary worksheet by using affixes, with the subject of the research is the students of Grammar for English teacher class.

The differences between this first previous and this research is the researcher uses word meaning, word combination, grammar of word to test the students. While in this research, the researcher uses the strategy of word combination and context clues to test students' vocabulary. The differences between this second previous , third previous research and this research are the researcher uses verb prefixes (*re-*, *dis-*), adjective prefixes (*un-*, *in-*, *im-*, *il-*, *ir-*, *dis-*), noun suffixes (*-er*, *ion/ation*, *ment*), verb suffixes (*-en*, *-ify*, *-ize*, *-ate*), adjective suffixes (*-ous*, *-ful*, *-able*, *-less*) to test students' vocabulary. In this second previous research, the researcher uses four main parts of speech to test the students' ability in using prefix and suffix. Those were noun, adjective, verb, and adverb. Meanwhile in this third previous research, the researcher uses *prefix inter-*, *suffixes -ment* and *-ion* to test students' vocabulary in using prefixes and suffixes. The differences between the fourth and this research is the researcher uses prefixes on vocabulary

learning. Meanwhile in this research, the researcher uses prefixes and suffixes in context to develop students' vocabulary. The differences between the fifth and this research is the researcher uses vocabulary worksheet by using affixes. Meanwhile in this research, the researcher uses prefixes and suffixes in context.

According to explanation above, the writer is interested to conduct the research entitled the influence of teaching prefixes and suffixes in context on developing students' English vocabulary at SMAN 2 Garut. Deriving word meaning through prefixes and suffixes is not popular for foreign learners. On the other hand, deriving word meaning through prefixes and suffixes within the words will be powerful strategy if the teachers use context clues around the words such as part of speech, contrast, cause-effect and other clues. Therefore, the writer will investigate students' English vocabulary development by teaching prefixes and suffixes in context and without context. Moreover, the purpose of this research is to compare the difference between the influence of teaching prefixes and suffixes in context and without context toward students' English vocabulary development.

RESEARCH METHODOLOGY

1. Research Method

Based on the objective that would be achieved, the writer uses the experimental method. Experimental method is a method of investigating causal relationships among variables. The writer chooses this method because the writer wants to compare the difference of influence between teaching prefixes and suffixes in context and without context toward students' English vocabulary development.

This research is intended to investigate the two variables: teaching prefixes and suffixes in context and students' English vocabulary development. There are two groups. Group 1, the experimental group receives specific treatment (teaching prefixes and suffixes in context); while group 2, the control group does not receive it (teaching prefixes and suffixes without context).

2. The Instrument of the Research

a. Try out test instrument

Before conducting the test, the writer conducted try out of the instrument. The try out for the test consists of fifty items and they are in the form of multiple choice. The result was analyzed for their validity, reliability, and practicality.

b. Pre-test and Post-test Instrument

The writer gave tests to each class both experimental and control group. Their scores were used to determine the differences of the two classes. The pre-test and post-test instrument used the different text but the difficulty level was same. The students' achievement was based on the test. The items were constructed in such a way that they could measure the students' achievement of each group. Most of the test items were adopted from internet and the writer wrote a few items in which the students had to choose one correct answer out of 4 choices. The item for pre-test and post-test consisted of 20 items. This lasted for one period (45 minutes). And the number of the students who sat for the pre and post-test was 66 students.

3. Research Procedure

In general, the procedures of the research can be described as follows:

- a. Preparing the materials for teaching and learning process during the treatment.
- b. Organizing teaching procedures by arranging lesson plan.
- c. Organizing the research instrument.
- d. Trying out the research instrument.
- e. Analyzing the try out data in order to find out the validity, reliability, and practicality.
- f. Conducting the pretest for both groups to find out the initial abilities between the two groups.
- g. Giving the treatment to experimental group (teaching prefixes and suffixes in context).
- h. Conducting the post-test for both groups to find out the progress of the ability of each group.
- i. Analyzing the data.
- j. Testing hypothesis.
- k. Reporting some conclusions of the result and propose some suggestions that may contribute for the further study.

4. Trying out the Instrument and Analysis of the Try out Instrument

The instrument was tested first in order to find out the validity, reliability, and practicality. It was conducted once another class of the same grade.

a. Validity

Validity is a matter of degree to extend the result of the study as one way to measure the validity by conducting item analysis. In this study, validity test used *analisis butir soal*.

Table 1
The formula of *analisis butir soal pilihan ganda*

$TK = (BA + BB) : N$	<i>kriteria tingkat kesulitan</i>
TK : Tingkat kesulitan	$0.00-0.30 = \text{sukar}$
BA : batas atas	$0.31-0.70 = \text{sedang}$
BB : batas bawah	$0.71-1.00 = \text{mudah}$
$DP = (BA - BB) : 1/2N$	<i>kriteria daya pembeda</i>
DP : Daya pembeda	$0.40-1.00 = \text{soal baik}$
	$0.30-0.39 = \text{terima dan perbaiki}$
	$0.20-0.29 = \text{soal diperbaiki}$
	$0.19-0.00 = \text{soal ditolak}$

Source: *Dasar-dasar Statistika Penelitian Pendidikan, 2007*

b. Reliability

To find out the reliability of instrument, the writer used *split-half method* proposed by Suharsimi Arikunto (2009: 93). It splits the odd items and even items. The writer used correlation product moment formula to correlate the two half. Then the writer used Spearman Brown formula to find out the reliability of the whole tests.

Table 2
Spearman Brown formula

$$r_{XY} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{N \sum X^2 - (\sum X)^2\} \{N \sum Y^2 - (\sum Y)^2\}}}$$

$$r_{11} = \frac{2r_{\frac{1}{2}\frac{1}{2}}}{(1 + r_{\frac{1}{2}\frac{1}{2}})}$$

Source: *Dasar-dasar Statistika Penelitian Pendidikan, 2007*

c. Practicality

A third characteristic of a good test is practicality. A valid and reliable test does not mean that it can be used to collect data if the test is not practical (Darsono Tjokrosujoso (1995/1996:172). Based on the result of the try out test, the test was economical, easy to be administered and easy to give score. It was also full and clear direction.

5. The Implementation of the Experiment

a. Study Agenda

The study was conducted in ten days. The experimental group was given treatment by teaching it prefixes and suffixes in context. The schedule is described by this following table:

Table 3
Study Agenda

No	Date	Activities	
		Post-test	Control group
1	First day (first hour)	Pre-test	Pre-test
2	First day	Treatment (teaching prefixes and suffixes in context)	Treatment (teaching prefixes and suffixes without context)
3	Second day	Treatment (teaching prefixes and suffixes in context)	Treatment (teaching prefixes and suffixes without context)
4	Third day	Treatment (teaching prefixes and suffixes in context)	Treatment (teaching prefixes and suffixes without context)
5	Fourth day (first hour)	Treatment (teaching prefixes and suffixes in context)	Treatment (teaching prefixes and suffixes without context)
6	Fourth day (second hour)	Post-test	

b. The Procedures of the Teaching and Learning in Experimental Group

The procedures of the teaching and learning in experimental groups were:

- a. The writer made lesson plan and learning material and then asked approval from the English teacher class IPA 1.
- b. The writer organized the three lesson plan for first, second, and third meeting.
- c. The writer organized the learning material for first, second, and third meeting.
- d. The writer taught prefixes and suffixes in context.

6. Technique for Analyzing the Data

After holding the test, the writer continued computing and analyzing the result of the pre-test and post-test both control group and experimental group through t-test formula. It can be done through the following steps:

- a. To formulate H_0 and H_a

H_0 : There is no significant difference between the influence of teaching prefixes and suffixes in context and without context toward students' English vocabulary development.

H_a : There is significant difference between the influence of teaching prefixes and suffixes in context and without context toward students' English vocabulary development.

- b. To count the number of the group to get (N)
- c. To add all the students diversity' score ($\sum d_i$)
- d. To count the students' diversity scores averages (\bar{X}_{d_i})
- e. To test normality of data distribution from each group using *Chi-kuadrat* test as proposed by Rostina Sundayana (2009:24).
 - 1) To count mean (X) and standard deviation (S)
 - 2) To make the table of data distribution

<i>Kelas</i>	<i>Batas</i>	<i>Z</i>	<i>Luas z</i>	<i>Ei</i>	<i>fi</i>	$\left(\frac{(fi - Ei)^2}{Ei} \right)$
<i>interval</i>	<i>kelas</i>	<i>batas</i>	<i>tabel</i>			
		<i>kelas</i>				

- 3) To define the value of Chi-kuadrat counted:

$$X^2 = \sum \frac{(fi - Ei)^2}{Ei}$$

4) To define the value of Chi-kuadrat table:

$$\begin{aligned} X^2_{\text{table}} &= X^2_{(1-\alpha)} (k - 3) \\ k &= \text{banyak kelas interval} \end{aligned}$$

5) Normality criteria: if $X^2_{\text{counted}} < X^2_{\text{table}}$, so the data distribution is normal

f. To test homogeneity of variances

$$1) F_{\text{counted}} = \frac{V_{\text{besar}}}{V_{\text{kecil}}}$$

$$2) \text{ Define } F_{\text{table}} = F_{0.05} \left(\frac{n_{\text{varian besar}}}{n_{\text{varian kecil}}} \right)$$

3) Homogeneity if $F_{\text{counted}} \leq F_{\text{table}}$

$$g. \text{ To ascertain } t_{\text{counted}} = \frac{X_1 - X_2}{S_{gab} \sqrt{\frac{N_1 + N_2}{N_1 \cdot N_2}}}$$

$$S_{gab} = \sqrt{\frac{(N_1 - 1)S_1^2 + (N_2 - 1)S_2^2}{N_1 + N_2 - 2}}$$

h. To ascertain $t_{\text{table}} = t_{0.05}(N_1 + N_2 - 2)$

If t_{counted} is out of H_0 acceptance area, so H_a is received.

7. Testing Hypothesis

All the process of collecting, analyzing and interpreting the data is aimed at testing the hypothesis. The hypothesis says:

“There is significant difference between the influence of teaching prefixes and suffixes in context and without context toward students’ English vocabulary development.

If analysis of the result of the test shows that t_{counted} is out of H_0 acceptance area, so H_a is received. It means that hypothesis is accepted.

FINDING AND DATA ANALYSIS

This chapter describes the analysis of the data calculation through the result of testing ability scores of the experimental and control group, interpreting the result of computation and the finding. Data computation and the steps of hypothesis testing are also described in this chapter.

1. Data Calculation

In conducting this research, the writer has collected the data by using pre-test and post-test to both of experimental group and control group.

The data have been divided into two groups. Those data are from experimental group and control group. The writer displays data as follows:

Table 4
Pre-test and Post-test Result Diversities of the Experimental Group

No	Pre-test	Post-test	Diversities (d_i)
1	30	80	50
2	40	85	45
3	40	85	45
4	30	70	40
5	35	80	45
6	30	75	45
7	40	80	40
8	40	80	40
9	30	80	50
10	35	80	45
11	30	65	35
12	35	80	45
13	40	75	35
14	40	80	40
15	40	70	30
16	45	80	35
17	35	80	45
18	50	75	25
19	55	75	20
20	35	80	45
21	35	55	20
22	35	85	50
23	55	85	30
24	40	70	30
25	30	70	40
26	25	75	50
27	35	85	50
28	50	90	40
29	30	85	55
30	55	90	35
31	55	85	30

32	40	100	60
33	30	60	30
$\sum N = 33$			$\sum d_i = 1320$

Source: Research Data Result, 2022

Table 5
Pre-test and Post-test Result Diversities of the Control Group

No	Pre-test	Post-test	Diversities (d_i)
1	30	55	25
2	30	40	10
3	35	75	40
4	30	65	35
5	35	40	5
6	30	75	45
7	35	60	25
8	30	75	45
9	30	60	30
10	30	80	50
11	35	50	15
12	30	80	50
13	30	35	5
14	25	55	30
15	30	80	50
16	25	55	30
17	20	75	55
18	35	60	25
19	35	75	40
20	30	70	40
21	30	55	25
22	35	55	20
23	35	60	25
24	40	75	35
25	30	50	20
26	35	55	20
27	30	65	35
28	40	70	30
29	30	55	25

30	30	60	30
31	40	55	15
32	40	65	25
33	40	80	40
$\Sigma N = 33$			$\Sigma d_i = 995$

Source: Research Data Result, 2022

A. Normality of Distribution Test

In this study, *Chi-kuadrat* test as in Rostina Sundayana (2009: 24) is used to test normality of data distribution from each group.

1. Normality of distribution test for Experimental Group

$$a) \text{ Rentang} = \text{skor terbesar} - \text{skor terkecil}$$

$$= 60 - 20$$

$$= 40$$

$$b) BKI = 1 + 3.3 \log N$$

$$= 1 + 3.3 \log 33$$

$$= 1 + 5.0094$$

$$= 6.009$$

$$c) P = \frac{40}{6}$$

$$= 6.66$$

$$= 7$$

d) To make distribution of frequency

Kelas interval	fi	Batas kelas	Z batas kelas	Luas z tabel	Ei	$\left(\frac{(fi - Ei)^2}{Ei}\right)$
20 – 26	3	26.5	(-1.36659)	0.4131	13.6323	113.0458
27 – 33	5	33.5	(-0.58184)	0.219	7.227	4.959529
34 – 40	9	40.5	(0.202915)	0.0793	2.6169	40.74397
41 – 47	8	47.5	(0.987668)	0.3365	11.1045	9.63792
48 – 53	7	53.5	(1.880743)	0.4699	15.5067	72.36394
56 – 63	1	63.5	(2.756018)	0.497	16.401	237.1908
					66.4884	477.942
$X^2 = \sum \frac{(fi - Ei)^2}{Ei}$						7.188351

Source: Research Data Result, 2022

e) To count the value of *Chi-kuadrat* counted:

$$X^2 = \sum \frac{(fi - Ei)^2}{Ei}$$

$$= 7.18$$

f) To count the value of *Chi-kuadrat* table:

$$X^2_{\text{table}} = X^2_{(1-\alpha)} (k - 3)$$

$$= X^2_{(1-0.05)} (6 - 3)$$

$$= X^2_{(0.95)} (3)$$

$$= 7.82$$

g) Normality criteria: if $X^2_{\text{counted}} < X^2_{\text{table}}$, so the scores are normally distributed.

$$X^2 = 7.18 < X^2_{\text{table}} = 7.82, \text{ so the data distribution is normal}$$

2. Normality of Distribution Test for Control group

a) *Rentang* = skor terbesar – skor terkecil

$$= 55 - 5$$

$$= 50$$

b) $BKI = 1 + 3.3 \log N$

$$= 1 + 3.3 \log 33$$

$$= 1 + 5.0094$$

$$= 6.009$$

c) $P = \frac{50}{6}$

$$= 8.3$$

$$= 9$$

d) To make distribution of frequency

Kelas interval	fi	Batas kelas	Z batas kelas	Luas z tabel	Ei	$\left(\frac{(fi - Ei)^2}{Ei}\right)$
5 – 13	3	13.5	-1.32151			
14 – 22	5	22.5	-0.98684	0.4066	13.4178	108.5306
23 – 31	12	31.5	-0.32895	0.3365	11.1045	37.26492
32 – 40	7	40.5	0.328947	0.1255	4.1415	61.75602
41 – 49	2	49.5	0.986842	0.1255	4.1415	8.171022

50 – 58	4	58.5	1.644737	0.3365	11.1045	82.89192
				0.4495	14.8335	117.3647
					58.7433	415.9792
$X^2 = \sum \frac{(fi-Ei)^2}{Ei}$					7.081304	

Source: Research Data Result, 2022

e) To count the value of Chi-kuadrat counted:

$$X^2 = \sum \frac{(fi-Ei)^2}{Ei}$$

$$= 7.08$$

f) To count the value of Chi-kuadrat table:

$$X^2_{table} = X^2_{(1-\alpha)} (k - 3)$$

$$= X^2_{(1-0.05)} (6 - 3)$$

$$= X^2_{(0.95)} (3)$$

$$= 7.82$$

g) Normality criteria: if $X^2_{counted} < X^2_{table}$, so the distribution of scores are normally distributed.

$X^2 = 7.08 < X^2_{table} = 7.82$, so the data distribution is normal.

B. The Homogeneity of Variances

$$X_1 = 40 \quad X_2 = 30.15$$

$$S_1 = 9.60 \quad S_2 = 12.89$$

$$1. F_{counted} = \frac{Varian_{besar}}{Varian_{kecil}}$$

$$= \frac{12.89^2}{9.60^2}$$

$$= \frac{166.15}{92.16}$$

$$= 1.802$$

$$2. F_{table} = F_{0.05} \left(\frac{n_{Varian\ besar}-1}{n_{Varian\ kecil}-1} \right)$$

$$F_{table} = F_{0.05} \left(\frac{33-1}{33-1} \right)$$

$$= F_{0.05} \left(\frac{32}{32} \right)$$

$$= 1.808 \longrightarrow \text{it's from interpolation method}$$

Interpolation Method

$$F_{0.05}\left(\frac{30}{32}\right) = 1.82$$

$$F_{0.05}\left(\frac{40}{32}\right) = 1.76$$

$$F_{0.05}\left(\frac{32}{32}\right) = 1.82 - \frac{2}{10} (0.06)$$

$$= 1.82 - 0.012$$

$$= 1.808$$

3. Homogeneity if $F_{\text{counted}} \leq F_{\text{table}}$

Because $F_{\text{counted}} = 1.802 < F_{\text{table}} = 1.808$, so the data is homogeneous.

C. The Calculation of t_{counted} and t_{table}

After collecting all of required data, it is processed through t-test formula; it can be done through the following steps:

$$t_{\text{counted}} = \frac{X_1 - X_2}{S_{gab} \sqrt{\frac{N_1 + N_2}{N_1 N_2}}}$$

$$S_{gab} = \sqrt{\frac{(N_1 - 1)S_1^2 + (N_2 - 1)S_2^2}{N_1 + N_2 - 2}}$$

$$S_{gab} = \sqrt{\frac{(N_1 - 1)S_1^2 + (N_2 - 1)S_2^2}{N_1 + N_2 - 2}}$$

$$= \sqrt{\frac{(33 - 1)9.60^2 + (33 - 1)12.89^2}{33 + 33 - 2}}$$

$$= \sqrt{\frac{(32)92.16 + (32)166.15}{64}}$$

$$= \sqrt{\frac{2949.12 + 5316.8}{64}}$$

$$= \sqrt{\frac{8265.92}{64}}$$

$$= \sqrt{129.155}$$

$$= 11.364$$

$$\begin{aligned}
 1. \quad t_{\text{counted}} &= \frac{X_1 - X_2}{S_{gab} \sqrt{\frac{N_1 + N_2}{N_1 \cdot N_2}}} \\
 &= \frac{40 - 30.15}{11.364 \sqrt{\frac{33 + 33}{33 \times 33}}} \\
 &= \frac{9.85}{11.364 \sqrt{\frac{66}{1089}}} \\
 &= \frac{9.85}{11.364 \sqrt{0.060}} \\
 &= \frac{9.85}{11.364 \times 0.244} \\
 &= \frac{9.85}{2.77} \\
 &= 3.5
 \end{aligned}$$

$$\begin{aligned}
 2. \quad t_{\text{table}} &= t_{0.05}(N_1 + N_2 - 2) \\
 &= t_{0.05}(33 + 33 - 2) \\
 &= t_{0.05}(66 - 2) \\
 &= t_{0.05}(64) \\
 &= 1.99
 \end{aligned}$$

2. Discussion of the Study

Pre-test and post-test result diversities for experimental group and control group are analyzed. It is used to prove the research hypothesis "there is significant difference between the influence of teaching prefixes and suffixes in context and without context toward students' English vocabulary development."

The scores in experimental group is normally distributed because $X^2_{\text{counted}} = 7.18 < X^2_{\text{table}} = 7.82$. The scores in control group is normally distributed because $X^2_{\text{counted}} = 7.08 < X^2_{\text{table}} = 7.82$. The variances for the scores of the two groups are equal because $F_{\text{counted}} = 1.802 = F_{\text{table}} = 1.808$. Based on the data analysis, $t_{\text{counted}} = 3.5$ and $t_{\text{table}} = 1.99$. Because t_{counted} value is higher than t_{table} , so H_0 is rejected. As stated on the criteria of hypothesis testing:

$$\text{If } -t_{\text{table}} \leq t_{\text{counted}} \leq t_{\text{table}}, H_0 \text{ is accepted}$$

Because $t_{\text{counted}} = 3.5$ is out of H_0 acceptance area, between $t_{\text{table}} = -1.99$ and 1.99 , so that H_a is accepted. It means that H_a is accepted, there is significant difference

between the influence of teaching prefixes and suffixes in context and without context toward students' English vocabulary development in the Second Grade Students of SMAN 2 Garut on ninety five percent (95%) significance level.

The result of research is supported by Wysocki & Jenkins (1987) as in Susan M. Ebbers (2009:13) says "The use of context to infer the meanings of unknown words is more reliable when readers analyze both the context surrounding the word and the morphemes within the word."

Then the result of this reseacrh is supported by the first previous result of the research from Fenny Widyawati, Patuan Raja, Deddy Supriyadi about teaching suffixes to increase vocabulary mastery at 2nd grade of SMAN. The result was t-value is higher than t-table ($16.124 > 2.048$). It means that there was a significant increase of students' vocabulary mastery after being taught by using suffixes. Grammar of Word is the aspect of vocabulary that increased the most. The analysis of result showed that suffixes can increase students' vocabulary mastery.

The result of this reseacrh is also supported by the second previous research from Karisma Erikson Tarigan and Margaret Stevani about Teaching Vocabulary Acquisition through Derivational Suffixes of SMP Santo Petrus Medan. The results of vocabulary test shows that the progressing mean score of the pretest is 34.66, post test in cycle 1 is 93.46, and post test in cycle 2 is 97.33. In cycle 1, the comparison percentage of nominal is 88.83%, verbal is 77.46%, adjectival is 40.74%, and adverbial is 84.14%. In cycle 2, the comparison percentage of nominal is 100%, verbal is 95.45%, adjectival is 65.84%, and adverbial is 94.91%. The percentage of the students who pass Minimal Criterion Mastery in each cycle is 100%, with the improvement 169.64% in cycle 1 to 180.81% in cycle 2. These indicate that there is a significant improvement of the students' vocabulary mastery through affixation strategy of Class IX-1 of SMP Santo Petrus Medan.

Based on the data analysis, the supporting theory and the other results of the research, the researcher finds out there is significant difference between the influence of teaching prefixes and suffixes in context and without context toward students' English vocabulary development in the Second Grade Students of SMAN 2 Garut on ninety five percent (95%) significance level.

CONCLUSIONS AND SUGGESTIONS

In this chapter, the writer presents the conclusions of the research and suggestions as follows:

1. Conclusions

It is time for the writer to draw some conclusions related to the hypothesis proposed in chapter 1 and the testing hypothesis in chapter IV. The writer presents some conclusions as follows:

- a. Teaching prefixes and suffixes in context can develop students' English vocabulary. As we have seen from pre-test and post-test result diversities both experimental group and control group that diversity scores averages for experimental group (40) is better than diversity scores averages for control group (30.15). This indicates that developing students' English vocabulary by teaching prefixes and suffixes in context is better than without context.
- b. The success of teaching prefixes and suffixes in context depends on teachers' creativity in formulating learning material, indicators and objectives.
- c. Teaching prefixes and suffixes can help the students figure out the word meaning and part of speech by recognizing its meaningful unit and base.
- d. Understanding which bases and which meaningful units, the students can find out how to form the real words.
- e. Teaching prefixes and suffixes can help the students learn how to pronounce the words.

2. Suggestions

Based on the conclusions above, the writer presents some suggestions as follows:

a. To the Teacher

- 1) In teaching and learning process, teaching prefixes and suffixes in context can be used as one of independent word learning strategies.
- 2) Some unfamiliar words in reading textbook may contain prefixes and suffixes. Foreign language teachers can help students derive the meaning of the words by analyzing prefixes and suffixes within the words and context clues around the words such as part of speech, contrast, definition and other clues.

b. To the Readers

Eventually, the writer hopes that this research can give other researchers inspiration and contribution to produce a better research.

BIBLIOGRAPHY

- Arikunto, Suharsimi. 2009. *Dasar Dasar Evaluasi Pendidikan*. Jakarta: Bumi Aksara.
- Ballard & Tighe. (2007). *Teaching Affixes*. A division of Educational IDEAS, Inc.
- Blachowicz, Camile L.Z. and Peter J. Fisher. (2005). *Integrated vocabulary instruction: meeting the needs of diverse learners in grades K-5*: Learning Point Associates. [available at www.learningpt.org/pdfs/literacy/vocabulary.pdf]
- Boey, Lim Kiat. 1975. *An Introduction to Linguistics for the Language Teacher*, published by Singapore university press for regional English Language Centre, Singapore.
- Brinton, Lauren J. 1984. *The Structure of Modern English: A Linguistic Introduction*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Ebbers, Susan M. 2009. *Vocabulary through Morphemes: Suffixes, Prefixes, and Roots for Intermediate Grades*: Research Base and Curriculum Overview
- Fotokian & Rahmatipasand. (2015). The Effect of Teaching Prefixes on Vocabulary Learning of Intermediate EFL Learners. *Indian Journal of Fundamental and Applied Life Sciences*, 5 (S2), 102– 110, Available at www.cibtech.org/sp.ed/jls/2015/02/jls.htm.
- Gairns, Ruth and Redman, Stuart. 1986. *Working With Word: A Guide to Teaching and Learning Vocabulary*. New York: Cambridge University Press.
- Pikulski, John and Shane Templeton. 2004. *Teaching and Developing Vocabulary: Key to Long-Term Reading Success*. Houghton Mifflin Company.
- Pradita, I & Sadi, N. (2016). Developing Student Vocabulary Worksheet by Using Affixes. *Ahmad Dahlan Journal of English studies*. 3 (1).
- Ro'aini & Ansar, F, A. (2019). Prefix and Suffix Analysis in Relation with Students English Ability. *English education: jurnal tadris bahasa Inggris*. 12 (1), 49-62. Available online at <https://ejournal.radenintan.ac.id/index.php/ENGEDU>
- Sudjana, N. Ibrahim, 2001. *Penelitian dan Penilaian Pendidikan*. Bandung: Sinar Baru Algesindo
- Sundayana, Rostina. 2007. *Dasar-dasar Statistika Penelitian Pendidikan*. Garut
- Tahaine, Y.S. (2010). Teaching English Word-formation Processes in EFL Context, Is an Essential Issue: A Critical View on a Textbook. *Journal of Human Sciences*. 45 (7). Available online at www.ulum.nl
- Tarigan, K, E. & Stevani, M. Teaching Vocabulary Acquisition through Derivational Suffixes of SMP Santo Petrus Medan in the Academic Year 2017/2018, *BirLE Journal, Budapest international research and crititcs in Linguistics and education*.
- Texas Reading Initiative. (2002) Online Revised Edition. *Promoting Vocabulary Development: Component of Effective Vocabulary Instruction*.
- Tjokrosujoso, Darsono. 1995. *Materi Pokok Dasar-Dasar Penelitian*. Jakarta: Universitas Terbuka DEPDIBUD.
- Widyawati, F., Raja, P., Supriyadi, D. Teaching suffixes to Increase Vocabulary Mastery at 2nd Grade of SMAN.