

A Comparative Study on Students' Vocabulary Achievement Using Google Translate and Using U-dictionary

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Abstract

This research is a "Comparative Study of Students' Vocabulary Achievement Using Google Translate and U-dictionary in Class 10 at SMAN 3 Palangka Raya". Quantitative methods are used for data analysis. This consider executed a quasi-experimental inquire about plan, including a pre-test and post-test to test students' understanding of lexicon accomplishment. The test for this inquire about utilized 10th review understudies at SMAN 3 Palangka Raya, consisting of 42 students per class and a total of 84 students. This research shows that based on the Mann Whitney test, researchers found an asymptotic significance value of 0.37 and a significance level of 0.001. Alternatively, the hypothesis (Ha) is rejected so the Mann Whitney test is used. This can be seen in the Sig column. (2-tailed)/significance for a two-sided likelihood test over 0.05 ($0.37 > 0.05$). Based on the discoveries over, it can be concluded that the utilize of Google Interpret and U-dictionary is a technology that facilitates learning when students have high knowledge of a foreign language and need to develop it by evaluating abilities or vocabulary. This means that these two applications have quite an effective influence on students' vocabulary understanding and achievement at SMAN 3 Palangka Raya

Keywords:

Vocabulary Achievement
Google Translate
U-dictionary

Abstrak

Penelitian ini merupakan "Studi Komparatif Prestasi Kosakata Siswa Menggunakan Google Translate dan U-dictionary di Kelas 10 di SMAN 3 Palangka Raya". Metode kuantitatif digunakan untuk analisis data. Penelitian ini menggunakan rancangan penelitian quasi-eksperimental, meliputi pre-test dan post-test untuk menguji pemahaman siswa terhadap prestasi leksikon. Tes untuk penelitian ini menggunakan siswa kelas 10 di SMAN 3 Palangka Raya, yang terdiri dari 42 siswa per kelas dan total 84 siswa. Penelitian ini menunjukkan bahwa berdasarkan uji Mann Whitney, peneliti menemukan nilai signifikansi asimptotik sebesar 0,37 dan tingkat signifikansi 0,001. Sebaliknya, hipotesis (Ha) ditolak sehingga digunakan uji Mann Whitney. Hal ini dapat dilihat pada kolom Sig. (2-tailed)/signifikansi untuk uji kemungkinan dua sisi lebih dari 0,05 ($0,37 > 0,05$). Berdasarkan hasil temuan di atas, dapat disimpulkan bahwa pemanfaatan Google Interpret dan U-dictionary merupakan teknologi yang memudahkan pembelajaran ketika siswa memiliki pengetahuan bahasa asing yang tinggi dan perlu mengembangkannya dengan mengevaluasi kemampuan atau kosa kata. Artinya, kedua aplikasi ini cukup efektif dalam mempengaruhi pemahaman dan prestasi kosa kata siswa di SMAN 3 Palangka Raya.

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1. INTRODUCTION

Regardless of the difficulty in studying the English language, it's precious to learn English in this era. Because language holds a very important role in almost every field of life, such as communication, trades, economics, politics, education, science knowledge, technology, and so on. One of the technology is the appearance of an online dictionary. In previous study stated that, online dictionaries are helpful tools mastered inside and outside class. The sole reason students want to utilize their devices and connect to the internet as language learners is to use online dictionaries. For instance, there are two different styles. Students may quickly find additional terms by using the student online dictionary, which helps them expand their personal vocabulary in the English language. (Hapsari, 2022, p. 12)

As said before, a smartphone is one of the electronic media used in developing technology, and nearly every student owns one. Students utilize this smartphone to access stuff that is available through applications that are downloaded onto it. (Krismonika et al., 2021, p. 24) supported by previous study, that in today's era almost every student using Google Translate app for assistance with learning a foreign language, particularly English. Particularly now that cellphones are widely available, services offer great convenience and support for students' academic success. (Khotimah et al., 2021, p. 78)

Meanwhile, in line with previous study stated, in research that uses English language as target language, Google Translate has utilized as tool in learning language. Additionally, several studies previously state that when students do not have enough knowledge English language, they will switch to Google Translate (Bin Dahmash, 2020, p. 229) has discovered that Google Translate is a free multilingual translation tool that allows users to translate text, audio, images, webpages, and videos in real time between languages. (Maulida, 2017, p. 58)

Previous study discovered, that having mastery vocabulary is very important because people choose you through the words you use. Second, having more vocabulary truly increases the ability to think someone. The most crucial skill for analyzing any language is vocabulary. (Hapsari, 2022, p. 12) In Indonesia, English isn't utilized as a moment dialect but or maybe as a remote dialect. English still becomes a lesson that aiming to study by the regulation curriculum. Moreover, a lot of children interested to increase their language level in English. To increase the skills of mastery English vocabulary, English teachers must work hard and think about how to make students mastery English language for themselves. Lot of approaches, methods, and techniques that teachers can use.

Reading, speaking, listening and writing everything need mastery vocabulary. As previously study stated that, students are frequently unable to organize ideas, refute counterclaims, and defend their claims. Students still struggle with syntax, writing conventions, taking a stance on a controversial topic, offering support, and persuading readers to agree with their viewpoint (Sabarun, Widiati, Suryati, & Azman, 2023, p. 187) While reading, children will have difficulty understanding its contents if they do not know the deep vocabulary of the text. Likewise, if they only have a little vocabulary, they will experience the same problem moment talking. In short, students will fight for study skills in language if their vocabulary is too limited because good vocabulary is very important For understanding a language and communicating. Supported by previous study stated that, vocabulary is gathering from a number of meaningfully placed words. He also clarified that language needs rules in order to be written in. That is for vocabulary learning, participants education must also be done learn the rules used in learning English so you can speak nicely (Muslimawati et al., 2021, p. 137) lexicon is collection of words that can be utilized by somebody in calling For unveil his considerations (Atmowardoyo & Talib, 2022, p. 370) studying vocabulary is very important for beginner (Alqahtani, 2015, p. 26).

Based on a statement from previous studies, it is proven that Vocabulary is crucial for pupils, even in higher education. Students' English skills begin with vocabulary, considering there are many writing assignments given in college. In the study it was explained that, argumentative writing skills are useful tools for students in higher education to argue their point of view. As a result, it is evident that college students must have great writing skills (Sabarun, Widiati, Suryati, & Hajimia, 2023, p. 74) Supported by the following statement that, students struggled to successfully express their thoughts due to a lack of prior planning. Despite learning how to compose a thesis statement, primary ideas, and supporting details, pupils' writing remains shallow and dry (Sabarun et al., 2024, p. 222)

In this case, researchers want to do research on students to know how much vocabulary they have as provisions for English learning. The most important thing is that researchers want students to learn the language naturally with a complete and memorable vocabulary. Most students today use technology to enrich their English vocabulary, they use online translation or dictionary applications such as Google Translate and U-dictionary. These applications are quite helpful for students to enrich their vocabulary, but are these applications effective for students to always use in their daily lives? As humans, it turns out that the brain has a capacity to store memory, not enough more than one petabyte. Will the use of this application affect

students' ability to memorize, or will it make students take learning a foreign language lightly? And are students able to remember, even just by looking at the dictionary and application, this online translation? In this case, researchers will find out how much influence the use of online dictionary applications has on students. By exploring how these digital resources affect vocabulary acquisition, researchers and educators gain insights that can influence teaching methodologies and contribute to the evolution of ongoing language learning practices.

- **Comparative Study**

A comparative study is a research method that involves analyzing and contrasting two or more phenomena, variables, groups, or approaches to identify similarities, differences, patterns, or relationships between them. This method aims to explore how different factors or conditions influence or affect the outcomes being studied. As previous study revealed, In the social sciences, comparative study is a research process that seeks to draw comparisons between various nations and civilizations. One of the main issues with comparative research is that data sets from several nations might not utilize the same categories or define them in the same way. (Abd El-kareem et al., 2019, p. 1)

- **Google Translate**

The majority of translators utilize Google Translate since it offers a wide variety of languages. Furthermore, Google Translate can be accessed on a variety of devices. You should be aware that Google Translate can be used with more sophisticated methods, such as typing, in addition to translating manuals that must be done again. To translate, use the following methods: talk, translate with a camera, write, tap, copy, and translate offline. A previous study that included techniques for improving students' study experience including the use of Google Translate in the classroom. (Suseno, 2023, p. 24)

- **U-dictionary**

U-dictionary is application efficient translation and dictionary. Easy to translate text, images, or conversation in 108 languages. Translate in a way instant while you are studying a new language or traveling to abroad. Free obstacles language, when or anywhere. U-Dictionary uses the original dictionary developed, COBUILD Collins Advanced Dictionary, Word-Net Dictionary, Bilingual Examples, Original Examples, Synonyms, Antonyms, Etymology Dictionary, and so on. In line with the meaning, previous study describe One offline dictionary that U-dictionary is an app that can be downloaded to an Android device or smartphone. With the help of this straightforward application, you may translate between more than 30 languages without accessing the internet. (Meisuri & Rini, 2021, p. 28)

- **Vocabulary**

As past think about specified lexicon is one of vital portion in English dialect ponder (Hapsari, 2022, p. 11) in line with the statement, Vocabulary is defined as words that one can retain long enough to use in the appropriate situation. (Sari & Aminatun, 2021, p. 16) there are three must elements noticed in Study English language: vocabulary, grammar, and pronunciation. After all vocabulary is part important in English language study (Taebenu & Katemba, 2021, p. 229) Vocabulary is a collection of known words in Language someone. As one gets older, one's vocabulary usually expands and becomes more valuable as a means of communication and knowledge acquisition. Grammar is much less important than Grammar. That is key for speak with correct with different humans. Strong vocabulary increases all field communication, listening, speaking, reading, and writing.

2. RESEARCH METHODS

The quantitative research method was the approach taken in the research. The data gathered for this investigation is analyzed using quantitative techniques. The researcher evaluated students' vocabulary using a quasi-experimental design that included a pre- and post-test. The researcher used tests at the beginning and end of the meeting to determine the increase in students' vocabulary using Goggle Translate and U-dictionary. The objects in this consider are Google Translate and U-dictionary to move forward students' lexicon in learning English. The inquire about subjects utilized within the think about were constrained to course X understudies of SMAN 3 Palangka Raya. The speculation in this think about:

- Hypothesis Null (H₀): There is no significance differences of using Google Translate and using U-Dictionary on students vocabulary achievement in 10th grade at SMAN 3 Palangka Raya.
- Alternative Hypothesis (H_a): There is a significance differences of using Google Translate and using U-Dictionary on students vocabulary achievement in 10th grade at SMAN 3 Palangka Raya.

Instrument study is tools used in study this For collect data with systematic and easy method. For collecting data, researchers observe moreover formerly with conduct a pre-test on students. First, researchers ask the source about the difficulty students in English lessons. Second, researchers share students become two groups, that is, group control and group experiment. The group experiment will accept treatment direct in a study that meanwhile group control did not get any treatment. Researchers apply the correct approach

as a tool evaluation to determine how effective the method is in increasing student vocabulary. Finally, after the findings are published, we can see various differences in enhancement group control and group experiments in English learning.

A. Data Collection Procedure

Information collection was carried out utilizing investigate rebellious, specifically pre-test, treatment, and post-test. In this study, treatment carried out by the researcher was to provide reading texts to students and test students to translate each sentence and find the meaning of the text. Then the test results were processed using an assessment rubric. After that, the analyst conducted a test to get supporting information, specifically what issues influence the capacity to decipher word for word within the frame of a post-test, which in test contained the same content frame.

There are several procedures to analyzed data by researchers, as follows:

1. Pre-test

Pre-test is tests carried out before accept treatment. To gather information, the researcher visit the class and researchers give the test choice double in translating a number of text for understanding student vocabulary in English learning. Choice double consists of 20 items, if answer Correct the score is 5, and if A wrong answer has a score of zero.

2. Treatment

In treatment, researchers use a number of text For see understanding student to English vocabulary. Treatment will be applied in class experiment, meanwhile class control will not get treatment. In this case, the test is instruments that are significant and can give a contribution to evaluating student vocabulary in English learning. The test consists of order questions, problems, or intended responses to determine knowledge, skills, or intelligence. Use test For get information and data for research. Researchers give students access to Google Translate and U-dictionary to know to what extent the students Can increase their vocabulary and English learning. In case here, students requested For understand text with answer questions given.

3. Post-test

Within the post-test, to gather the information utilized the test in numerous choice paper sheet which comprises of a few markers; Noun, Adjective (Adj), Adverb (Adv), and Verbs (V). Researchers give multiple choice to know the understanding of students' vocabulary in English. Multiple choice will consist of 20 items. Same as pre-test, if the answer is correct then the score is 5, and if the answer is wrong then the score is 0. Researcher do test to know the students' ability in English vocabulary learning.

According to procedure data collection above, researcher feel four meeting already enough because, meeting First covers introduction and pre-test for students, meetings second covers treatment so that Google Translate and U-dictionary can enrich student vocabulary in English learning, meetings third covers method control English vocabulary and treatment to students, and meetings final including post-test for measure ability student vocabulary in English learning. Researchers believe that is enough to determine the effect of Google Translate and U-dictionary in enriching student vocabulary in English learning.

Writer choose test choice double as instrument study Because evaluation can be done with fast and not involve evaluation for degrees truth. Researcher using pre-test. The pre-test function is For know understanding vocabulary student in English learning. Researchers also use post-tests to compare the understanding of vocabulary students after using comparative study in class control and class experiments.

With the use of question choice, double so researcher Can see concrete results know How knowledge vocabulary students in English learning.

B. Data Analysis Procedure

Analysis statistics that researchers use in this study is descriptive analysis statistics. Statistics descriptive is something method For organising, representing, and describing data sets using tables, graphs, and many numeric parameters. Researcher using SPSS 25.00.

There are many procedures to analyze data. The procedure has been done with an analysis quantitative as follows:

1) Descriptive Analysis

The main goal of descriptive analysis is to provide a general overview of the data without making any deeper conclusions or predictions.

2) Normality Test

Testing for normality is important because many statistical methods (such as ANOVA, t-test, and linear regression) assume that the data follow a normal distribution.

3) Homogeneity Test

Homogeneity of variance (homoscedasticity) is an important assumption in many statistical analyses, such as ANOVA (Analysis of Variance), where this assumption must be met for the results of the analysis to be valid.

4) Mann Whitney Test (Non-Parametric)

When the assumption of normality is not satisfied, the Mann-Whitney test is frequently employed as an alternative to the t-test for independence.

3. RESULT AND DISCUSSION

After providing material according to the existing discussion, namely narrative text, the researcher checked the students' achievements in understanding the text using Google Translate in the experimental class by translating the text from English to Indonesian. and text narrative-related questions on the post-test assess students' comprehension of their capacity to read, write, and arrange language structures.

The taking after is the research's speculation: H_0 = The two populaces are the same Hello there = The achievement information for the two bunches vary essentially from one another, demonstrating that the two populaces are not the same; too, the achievement information for the two bunches don't vary measurably. Decision-making:

If probability > 0.05 , then H_0 is accepted.

If probability < 0.05 , then H_0 is rejected.

It can be seen that in the Sig column. (2-tailed)/significance for the two-sided test is 0.37, or a probability above 0.05 ($0.37 > 0.05$). So H_0 is accepted, or control group who did not get a treatment is not different from the experimental group that received treatment.

The procedure has been done with an analysis quantitative as follows:

1) Descriptive Analysis

Table 2.4 Descriptive Statistic Analysis

Descriptives								
Vocabulary Mastery								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Eksperimen	42	5,24	4,547	0,702	3,82	6,65	0	30
Kontrol	42	4,29	2,361	0,364	3,55	5,02	0	10
Total	84	4,76	3,633	0,396	3,97	5,55	0	30

Based from the results of the descriptive analysis, it can be seen that the average vocabulary mastery in English in the experimental group (5.24, SD=4.55) tends to be higher compared to the control group (4.29, SD=2.361). The relatively low standard errors in both groups indicate the stability of the data in the sample. The 95% confidence interval for the means of the experimental group (3.82 - 6.65) and the control group (3.55 - 5.02) demonstrates that the distinction between the two bunches isn't measurably noteworthy. In any case, the exploratory bunch appeared more prominent variety in lexicon dominance, with a range of scores from 0 to 30, while the control group had a more limited range of scores, namely from 0 to 10.

2) Normality Test

Table 2.5 Normality Test

		Tests of Normality					
		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
Data		Statistic	df	Sig.	Statistic	df	Sig.
Eksperimen	Pre Test	0,245	42	0,000	0,788	42	0,000
	Post Test	0,210	42	0,000	0,818	42	0,000
Kontrol	Pre Test	0,221	42	0,000	0,839	42	0,000
	Post Test	0,219	42	0,000	0,864	42	0,000

a. Lilliefors Significance Correction

A significant value (sig) of less than 0.05 was found in the data from all groups (Experimental and Control) in the Pre-Test and Post-Test, according to the results of the Kolmogorov-Smirnov and Shapiro-Wilk normality tests, suggesting that the data was not normally distributed. In order to compare differences between two groups, additional analysis using non-parametric tests—such as the Mann-Whitney test—is advised. This method is more appropriate to use when the normality assumption is not met.

3) Homogeneity Test

Table 2.6 Homogeneity Test**Test of Homogeneity of Variances**

		Levene Statistic	df1	df2	Sig.
Vocabulary Mastery	Based on Mean	0,108	1	82	0,743
	Based on Median	0,423	1	82	0,517
	Based on Median and with adjusted df	0,423	1	60,953	0,518
	Based on trimmed mean	0,069	1	82	0,793

The significance value (Sig.) for all techniques utilized (based on Mean, Median, Median with adjusted df, and Trimmed Mean) is significantly above 0.05 (0.743, 0.517, 0.518, and 0.793, respectively), according to the variance homogeneity test results using Levene's test. successive). This suggests that the hypothesis of homogeneity of variance between the experimental and control groups cannot be rejected due to a lack of evidence.

4) Mann Whitney Test (Non-Parametric)

Table 2.7 T-test (Non-Parametric)

		Ranks		
Kelompok		N	Mean Rank	Sum of Ranks
Vocabulary Mastery	Eksperimen	42	44,29	1860,00
	Kontrol	42	40,71	1710,00
	Total	84		

Table 2.8 Statistics Test

Test Statistics ^a	
	Vocabulary Mastery
Mann-Whitney U	807,000
Wilcoxon W	1710,000
Z	-0,902
Asymp. Sig. (2-tailed)	0,367

a. Grouping Variable: Kelompok

With a Mann-Whitney U value of 807 and an asymptotic significance value (2-tailed) of 0.367, the findings of the test indicate that there is no discernible difference in vocabulary mastery between the Experimental group (Mdn=44.29) and the Control Group (Mdn=40.71). When the significance value exceeds the commonly selected alpha (0.05), it suggests that there is insufficient evidence to reject the null hypothesis. This implies that, according to the Mann-Whitney test difference test findings, both groups have comparable language mastery scores.

By analyzing data, researchers found that neither Google Translate nor U-dictionary had a substantial impact on students' vocabulary achievement. The pre-test findings and treatment given to the experimental group demonstrate this.

The experimental group received Google Translate as a form of treatment. In this instance, students receive activities that align with the teacher's discussion of text narrative, which helps them reframe the concept before receiving treatment.

The students seemed enthusiastic because they innovated in learning and can find out their vocabulary while learn English through google translate. However, in this case, students on average have mastered a lot of vocabulary in English, with this research, it makes them even more enthusiastic about exploring lots of vocabulary. They can improve their speaking skills using Google Translate by listening to the audio available on Google Translate.

They participate actively in the learning process taking place. They read and understand narrative texts with their classmates. Then students can provide whatever is in the narrative text. English subjects do not make them bored. There are also activities in the control class. However, they tend to understand even if they don't use U-dictionary, because they tend to have mastered English vocabulary, even though their English skills, both in the experimental and control classes, both need to be further honed.

In this case, it can be seen that several times students enjoy learning English in the same way as experimental classes, students are seen to innovate in learning, can explore and understand English vocabulary easily. After the researchers got the post-test results, the researchers did not find any significant differences in students' vocabulary achievements using Google Translate or U-dictionary.

The difference in their scores in the experimental and control classes. That can be seen from the test results.

No.	Experiment Class G. T		
	Pre-test	Post-test	
1	90	95	
2	95	100	
3	75	80	
4	90	95	
5	80	85	
6	90	95	
7	75	85	
8	90	90	
9	95	100	
10	95	100	
11	95	100	
12	95	100	
13	90	95	
14	25	30	
15	90	95	
16	70	80	
17	85	85	
18	90	90	
19	80	85	
20	40	70	
21	95	100	
22	75	80	
23	90	95	
24	90	95	
25	45	55	
26	90	95	
27	90	95	
28	75	80	
29	90	90	
30	75	80	
31	95	100	
32	75	80	
33	45	50	
34	95	100	
35	65	70	
36	90	95	
37	90	95	
38	75	80	
39	60	65	
40	85	85	
41	45	50	
42	80	80	
	79,761905	85	Average

The normal pre-test score within the test course was 79,7. And the average post-test score within the exploratory lesson is 85.00.

No.	Control Class U.d		
	Pre-test	Post-test	
1	85	90	
2	85	90	
3	80	80	
4	95	100	
5	95	95	
6	75	80	
7	70	75	
8	80	90	
9	90	95	
10	70	75	
11	95	100	
12	80	85	
13	90	90	
14	95	95	
15	90	100	
16	95	100	
17	95	100	
18	85	90	
19	90	95	
20	85	90	
21	85	90	
22	80	80	
23	80	85	
24	95	100	
25	90	90	
26	65	70	
27	85	90	
28	85	90	
29	90	95	
30	95	100	
31	90	95	
32	90	90	
33	95	100	
34	95	100	
35	95	100	
36	60	65	
37	85	85	
38	90	95	
39	90	95	
40	90	95	

41	95	100	
42	90	95	
	86,666667	90,95238	Average

The normal pre-test score within the control course was 86,6. Furthermore, 90.9 is the typical post-test result in the control lesson. In this study, course X-5, which has a maximum enrollment of 42 students, serves as the control lesson, while course X-4, which has a maximum enrollment of 42 students, serves as the test course. These findings suggest that the experimental and control classes' post-test scores were five points higher than they were on the prior test. Although just by 5 points, the average post-test scores for both courses climbed. In contrast to the control class, the experimental class's average value was greater. Thus, U-dictionary and Google Translate help students acquire vocabulary in English more successfully in 10th grade at SMAN 3 Palangka Raya.

There were forty-two students in the experimental class. The experimental group found that utilizing Google Translate for vocabulary instruction was more effective than using U-dictionary for the control group. Researchers discovered that the asymptotic significant value was 0.367 and the significance level was 0.000 based on the Mann Whitney test. Alternatively, the Mann Whitney test is employed if the hypothesis (H_a) is rejected. The Sig column displays this. (2-tailed)/significance ($0.367 > 0.05$) for a two-sided probability test over 0.05. Subsequently, it has been decided that students' understanding of the English dialect within the tenth review at SMAN 3 Palangka Raya is affected by their utilize of Google Interpret or U-dictionary.

4. CONCLUSION

The usage of U-dictionary and Google Translate to expand students' vocabulary has an impact on their vocabulary understanding, according to study and discussion findings. Without employing U-dictionary or Google Translate, the analysis's findings are based on the students' average post-test score who had already achieved high points from the pre-test. Analysts accomplished an normal post-test score within the exploratory course of 95.00 and an average post-test score within the control course of 90.00.

In this case, it implies there's a slight contrast within the understanding of understudies who are instructed utilizing Google Translate or U-dictionary. In this research, these two applications had a positive influence on student learning development. both for understanding a text, improving the pronunciation of words, and as a place to look for words to write. In this case, these two applications have an influence on the vocabulary achievement of SMAN 3 Palangka Raya students.

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