

The Effectiveness of Cake Application Toward Students' Vocabulary Mastery at Eleventh Grade Students of SMA N 8 Jambi City

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ABSTRACT

The purpose of this study was to find out whether the use of the cake application was effective in increasing the vocabulary of class XI students at SMA N8 Jambi City. This study used a quantitative method with a population of 184 students in class XI, with a sample of 36 students in class XI IPA 1 and 37 students in XI IPA 2 who were selected by cluster sampling. In this study, data were collected using the pre-test and post-test to see the average score of the two classes using SPSS version 29. The results of this study indicate that (1) vocabulary mastery in using the cake application in the treatment class with an average of 80.25; (2) Vocabulary mastery in the control class with an average of 70.92; (3) the vocabulary mastery of the treatment class students using the cake application was higher than the control class with a Sig. 0.001 > 0.05. The use of the cake application is effective in increasing the vocabulary of class XI students at SMA N8 Jambi City.

Key words: *Cake Application, Vocabulary Mastery.*

INTRODUCTION

Vocabulary is what makes a language unique or rich (Soedjito et al, 2011). Vocabulary is an essential component of learning English since it facilitates effective communication. Language proficiency can be impacted by improving one's command of the English language through adequate vocabulary mastery. According to Tarigan (in Bari 2003), a person's level of language proficiency is unquestionably influenced by the breadth and depth of their vocabulary.

As science and technology evolve, it is essential to be able to communicate in a foreign language, hence learning a foreign language is a requirement. Being able to use a large enough vocabulary is one criterion for learning English. The majority of English instruction is currently given via the teacher-delivered approach, with relatively little media use some teachers even employ wall graphics with English vocabulary. Utilizing learning media is one of the supporting teaching strategies for teaching English. This will greatly increase the effectiveness of the learning process and, in addition to motivating students, will also help them understand the material better.

The Cake Application is a popular online tool for learning English. Its primary content consists of videos of amusing and brief English conversations. Also, the Cake Application provides grammatical explanations for the

sentences that are utilized, as well as common idioms and terminology that are placed in contexts that are helpful to English learners. Also, this cake application may record, analyze, and check pronunciation. The researcher is interested in finding out if this application can actually aid students in their understanding of the English that is being taught in the classroom. Also, the researcher aims to demonstrate whether this cake application can improve students' vocabulary because it is challenging for pupils to have a limited vocabulary.

According to the authors' research, there are many issues with pupils learning English in the classroom, including a lack of student vocabulary and difficulties with pronunciation. They think that learning English is tedious and challenging, and that their limited vocabulary prevents them from becoming more fluent in the language. The researchers in this instance concentrated on using the cake application to boost pupils' vocabularies. This cake application is actually the most effective way to teach vocabulary because it constantly introduces students to new words they may not have encountered before. Because these new words are always used in context, students can quickly recall them and understand what they mean.

REVIEW OF THE RELATED LITERATURE

Vocabulary

The vocabulary in a person's language is their collection of well-known words. A vocabulary is a useful and essential tool for communication and knowledge acquisition that typically develops with age. One of the hardest parts of learning a second language is developing a wide vocabulary. A person's vocabulary is all the words they know or use in a specific language, according to Hornby (2006).

Vocabulary Mastery

Vocabulary mastery is the ability to recall a large number of words or vocabulary in the context of writing subskills. According to Kano's research, vocabulary mastery influences students' thinking during the language acquisition process, and as a result, vocabulary mastery can determine a student's language quality, as stated in the article Nisa, K. (2019).

Cake Application

The pace of technological advancement is currently accelerating, and it is affecting people worldwide. Today's technology is present in every aspect of human existence. From birth to old age, modern technology may make life easier for people. Technology has greatly improved human lives.

METHODOLOGY

This study used a quantitative approach to design an experimental study. The author chose an experimental study to find out the effect of an independent variable on another variable or to find out the cause and effect relationship between/among the variables. Ary et al. (2010) experimental research is the study of the effects of systematic manipulation of one variable on another. It can also be explained that experimental research is a research method to test a hypothesis starting with a question about the relationship between two or more variables. Creswell (2014) proposed this design; in a pre-experimental study design, one group was researched; there was no control group to contrast with the experimental group.

A population is defined as all members of any well-defined class of people, event, or object

(Ary, et al. 2010). The total member of the population is 184 students. Sample is a component of the object research's population (Arikunto, 2013: 174). One-stage cluster sampling is the process of selecting a subset of clusters at random from a bigger subset of all clusters in the population (Bruke & Christensesn,2014). As a result, the researcher chooses a class to focus on by printing the names of the classes on pieces of paper, rolling them up, and mixing them. The researcher then selected 36 pupils from classes XI IPA 1 and XI IPA 2 as a sample.

This research used the data required to acquire data in experimental study. Ary, et al. (2010) define a test as a series of stimuli administered to people in order to elicit reactions from them that can then be scored numerically.

Pre-test

By posing a series of questions and gauging how well the students comprehend the material being taught, a pre-test was done to gauge the students' vocabulary competence. In this study, a pre-test was administered during the first meeting before participants got treatment for responding to the material's questions.

Treatment

The goal of the intervention in this study is to make it simpler for the students to write, particularly regarding comprehending the subject matter.

Post-test

Following treatment, the students were given a post-test. The format and degree of difficulty were nearly identical to those of the pre-test, but the wording and subject matter were different. Fundamentally, the purpose of this test was to gauge the student's vocabulary proficiency following the intervention. It was requested that the gain scores of the pupils be known, as well as whether their gains were different before and after the treatment.

Franekel and Wallen (2006:150) assert that when creating or selecting the instrument to be utilized, validity is the most crucial factor to take into account. Creswell (2012: 159) states that reliability means that scores from an instrument are stable and consistent. In the research, the reliability test of the questions used the SPSS 29.0 for Windows version with the following decision-making criteria:

1. If $r_{count} \geq r_{table}$ at a significant level ($\alpha = 0,05$), then the question is declared reliable.
2. If $r_{count} < r_{table}$ at a significant level ($\alpha = 0,05$), then the question is declared unreliable.

First, Scoring the students' Vocabulary of Pre-test and Post-test

$$Score = \frac{\text{Students correct answer}}{\text{The Total Number of Item}} \times 100$$

(Gay,1981)

Following the calculation of the score by the researcher, the following stages of data analysis must be completed is using the following formula, computer the average (mean) score:

$$\bar{x} = \frac{\sum x}{N}$$

For information :

\bar{x} = The mean, or arithmetic average, of the scores

$\sum x$ = the total of all the scores

N = total number of students

Next, Brown (1988) "Highest" (81-100), "High"(61-80), "medium"(41-60), "Low"(21-40), "Lowest"(0-20) using the criterion-referenced interpretation.

The purpose of a normality test is to evaluate whether or not the data is normally distributed.

A method for detecting if two samples of data are from the same distribution is the Kolmogorov-Smirnov test.

In this research, normally test is carried out using SPSS 29.0. The decision-making criteria are:

1. If the value of sig. Kolmogorov-Smirnov test $> (\alpha = 0,05)$, then the data is normally distributed.
2. If the value of Sig. Kolmogorov-Smirnov test $< (\alpha = 0,05)$, then the data is not normally distributed.

Homogeneity test is applied to the posttest result data from the experimental group and the control group in this research, homogeneity test is carried out using SPSS 29.0. The decision-making criteria are:

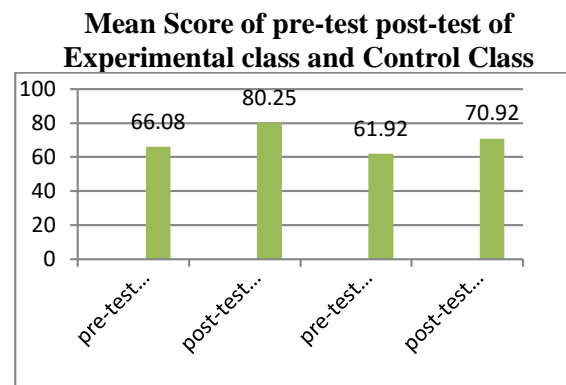
1. If the value of sig. Based on Mean $> (0,05)$, with a 95% confidence level, the data used is homogeneous.
2. If the value of sig. Based on Mean $< (0,05)$, with a 95% confidence level, then the data used is no homogeneous.

Testing the hypothesis comes after the paired sample t-test in the data analysis process. In this research, hypothesis test is carried out using SPSS 29.0. The decision-making criteria are:

1. If the value of sig $< (\alpha = 0,05)$, then the H_a is rejected.
2. If the value of sig $\geq (\alpha = 0,05)$, then the H_o is accepted.

FINDINGS AND DISCUSSIONS

Based on the graph, it shows that the average student learning result with the pre-test in the experimental class was 66.08, while in the post-test in the experimental class it was 80.25. While in the Control class the average score of students in the pre-test was 61.92 and in the post-test was 70.92. This graph shows that the results of the post-test in the experimental class are higher than the results of the post-test in the control class. Researchers use tests, pre-test, and post-test, to see the increase in vocabulary mastery before and after treatment



Descriptive Statistics Experimental class

	N	Mini mum	Maxi mum	Sum	Mean	Std . Devia tio n
PreTest	36	56	76	2379	66.08	6.535
PosTest	36	70	90	2889	80.25	4.860
Valid N (listwise)	36					

Descriptive Statistics Control Class

	N	Mini mum	Maxi mum	Sum	Mean	Std. Deviation
PreTes t	37	53	73	2291	61.92	4.699
PosTe st	37	60	80	2624	70.92	4.425
Valid N (listwise)	37					

The test data above showed the significance of the experimental class was 0.09 and the control class was 0.71. If the data is higher in a significance $\alpha = 0,05$ the data was normal distributed. Normality test showed the significance of the experimental class was 0.09 and the control class was 0.71. If the data is higher in a significance $\alpha = 0,05$ the data was normal distributed. While, significance of experimental class was 0,52 and the control class was 0.47 if data is higher in a significance $\alpha = 0.05$, that the data is normally distributed because the both classes significances are above 0,05.

Tests of Normality

Class		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	df	Sig.
Vocab	Pre-Test	.16	36	.01	.91	36	.00
	Experimen	.2		.8	.6		.9

ula ry	Post-Test	.18	36	.00	.94	36	.05
	Experimen	.7		.3	.0		.2
Class	Pre-Test	.15	37	.02	.94	37	.07
	Control	.9		.0	.6		.1
Class	Post-Test	.17	37	.00	.94	37	.04
	Control	.4		.6	.0		.7

The Homogeneity test can be concluded that the value of sig. Levene statistic is $0.915 > 0.5$. Thus, it can be concluded that the research data is homogeneous.

Test of Homogeneity of Variance

	Levene Statistic	df1	df2	Sig.	
				.	
Hasil Belajar Siswa	Based on Mean	.011	1	71	.915
	Based on Median	.000	1	71	.984
	Based on Median and with adjusted df	.000	1	69.047	.984
	Based on trimmed mean	.013	1	71	.908

The Hypothesis test it can be concluded that count is 51.895 and sig value is 0,001, the value of sig $0,001 < 0,05$ then Ho is rejected.

**Hypothesis Test Result
Coefficients^a**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error			
1	(Constant)	89.581	1.726		51.895	.001
	Vocabulary_Mastery	-9.331	1.087	-.714	-8.582	.001

Based on data taken from 36 students from the experimental class, it shows the results obtained by students in the pre-test with an average of 66.08 before using the cake application. After using the cake application, the average student score was 80.25. Whereas Table above shows the control class with 37 students where the average pre-test score was 61.92 and the post-test average result was 70.25. It can be concluded that the results of the experimental class post-test scores increased after using the cake application.

As required in hypothesis, if the p-value was smaller than or equal to the 0,05 then the alternative hypothesis (H_a) is accepted and the null hypothesis (H₀) is rejected. Thus, it was found that applying cake application in toward vocabulary mastery to the eleventh grade students of Senior High School N8 Jambi City is effective.

Based on the research results, the use of the cake application can improve students' vocabulary mastery. It can be seen from the post-test results of students in the experimental class that the use of this application can increase vocabulary. The use of the cake application is very interesting in using it, because you can choose what genre or theme you want to study.

Based on the explanation above, it can be concluded that the cake application is very effective in increasing students' vocabulary mastery. The use of the cake application is effective for increasing the vocabulary mastery of eleventh grade students of SMA N8 Jambi City.

CONCLUSIONS

Based on the results of data analysis and research findings, it can be concluded that there are significant differences in the average scores of students before and after being taught using the cake application. From the results obtained in the experimental class at the pre-test 66.08 and post-test 80.25. Likewise in the control class with pre-test results of 61.92 and post-test 70.92.

This proposition is likely to be true with a confidence level of 95%, from these results it can be concluded that this application is effective as a learning medium and an English learning resource to increase students' vocabulary.

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