



Enhancing Students' English Pronunciation with Cake Game Application

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Abstract

In this research, researchers make pronunciation and application the focus of research to improve students' ability to learn pronunciation. This research uses an experimental method with a quasi-experimental design. Participants in this study were divided into two groups, namely the control group and the experimental group. Based on the processing of data, improving the pronunciation ability of this cake game application has a positive impact on improving the ability of English pronunciation in students.

Keywords: *Cake Game Application, Pronunciation, Student Ability.*

Introduction

Since the Covid-19 pandemic in 2019, the world of education has undergone significant changes, especially in Indonesia. The use of social media and applications in learning has become one way in the learning system during the pandemic. (Syafitri, Asib, dan Sumardi 2018) Their research revealed that using the Powton Application in learning can increase student motivation, attention, interest, and participation. In addition, to keeping the learning process running,

this is also intended so that student's interest in learning can continue to be maintained. (Nurhasanah dan Sobandi 2016) Revealed that interest in learning will affect students who study hard and continue to understand all the knowledge they are interested in.

The development of the learning system is also inseparable from the development of technology. Technology development has improved many areas of education, such as research, teaching, and learning, providing various resources that help teachers and students learn independently. (Maritsa et al. 2021) Revealed that the development of technology can help all humans around the world to help become a means to carry out daily activities that humans carry out at work and in education. Regarding learning objectives, technological advances encourage people to learn in a private and structured environment. (Apriyanti and Ayu, 2020) revealed that the teaching and learning process becomes easy and interesting so that students can understand the lesson easily, student learning

Efficiency can increase, and it can improve students' learning concentration. As stated by (Emda 2015) in his research revealed that motivation is one of the keys to success in achieving learning goals.

This technology development product can also be utilized to the fullest by teachers, in this case, to improve students' English pronunciation skills. Improving pronunciation is one of the hardest focuses in English language teaching. Errors in pronunciation may result in different sentences in the process of understanding English itself. (Gunantar dan Rosaria 2020) revealed that one of the signs of successful foreign language learning is clear pronunciation to help understand the information conveyed from the speaker to the listener or vice versa. Based on the observations of researchers when conducting teaching practices, pronunciation is one thing that makes students reluctant to learn English. Since English is a second language, learning is often a scourge for students. Ultimately, appropriate student Pronunciation can increase students' confidence in using English. It is also expressed by (Samad dan Ismail 2020) in his research which states that pronunciation in English can make students more confident.

In this research, researchers make pronunciation and application the focus of research. To improve students' ability to learn pronunciation, researchers made the Game Cake Application one of the application media that can be used to improve students' English pronunciation skills. This application is not only to improve students' pronunciation skills but is also designed as a fun game so that it can maintain students' interest in learning. This application also has a pronunciation checker feature, AI Speech Recognition, to check the pronunciation of spoken English words. It is an important point in this study, considering that researchers are not Native Speakers, so the assessment of whether or not mentioning English words is appropriate can be done objectively. This application is also equipped with an assessment system that researchers can record as a pronunciation measurement tool that can later be processed as research data.

The development of the times is so drastic that the need for mastering foreign languages is one of the things that is considered important. (Novelina Flizah, 2021) her research stated that there are many reasons why English is so important in education in Indonesia. One of them is as an introductory medium in seeking knowledge globally. Coupled with rapid technological advances, combining these two things can support and strengthen each other. Researchers raised this research intending to be an illustration for innovative learning development for both teachers and students. Therefore, the research focused this research with the title "Application of Cake Game Application to Improve Student English Pronunciation."

Method

This research uses an experimental method with a quasi-experimental design. It is assessed according to the purpose of this study, which is to improve students' abilities, according to Sugiyono (2012: 46), grouping variable classes into two, namely the experimental and control classes. Group selection is carried out by purposive sampling with the ability of the sample to be considered homogeneous. The first group, called the experimental group, was given the role playing learning treatment, and the second group was called the control group, with which no treatment was given. This research was carried out for three months, from September to November 2022. Researchers used the Cake game application to improve students' pronunciation abilities.

The population in this study is 35 students of SMA 14 Luwu Class XI. Furthermore, 20 students were determined who would participate in this study using random sampling techniques. The 20 participants were divided into two groups, namely the control group (10 students) and the experimental group (10 students).

Data collection

Tes dan Audio

Data compilation is done using conversation tests through the cake game application. Each student will be asked to do the test independently using a cellphone device prepared by the researcher. The researcher will record the test results with screenshots and then analyze them using SPSS v26. Students will be judged based on intonation and pronunciation using game applications. The audio on this gaming app will transcribe the words spoken to the students after completing the game.

Pre-test

Pre-tests were given to both control and experimental groups as a benchmark for the successful use of the Cake game application for the improvement of student

pronunciation. This pre-test is also intended to record the participant's initial ability. In this pre-test, both groups of students were instructed to work on the Cake game. Subsequent results are recorded with screenshots.

Treatment

At this stage, the experimental group will be given treatment in the form of training in the pronunciation of common words. This treatment is in training and learning pronunciation using cake game applications. Treatment was carried out in as many as six meetings with a duration of 90 minutes in each session.

Post-test

The final stage is the post-test. At this stage, the two groups returned to work on the cake game. The results of this test will then be processed and determine the success of using the game cake application in increasing student pronunciation. The post-test results will be recorded with screenshots and processed to get research data.

Data Analysis

Data analysis is the most powerful thing in research. A good and complete set of data without being followed by good analysis will also cause futility. Data analysis is a process of simplifying data in a form that is easier to read and interpret (Putra 2021) so that data is a fact or part of a fact depicted with symbols, images, values, and descriptions of characters that have meaning in a particular context. In this study, 2 data analysis tests were carried out: the analysis prerequisite test and the hypothesis test. The prerequisite test of analysis is by testing normality and homogeneity between the subjects of the experimental group and the subjects of the control group. Then a hypothesis test is carried out between the experimental and control groups.

The spread normality test is used to check whether the data obtained from each distribution variable is normal. The calculation of the normality test in this study used the normality test of Kolmogorov-Smirnov data calculated with the help of SPSS P.26:

If the value (α) > 0.05, then the data is homogeneous (the same)
if the α < 0.05, then the data is not homogeneous.

The variance homogeneity test, as stated by Singgih Santoso (2014: 79), is to find out whether the two groups have the same average or not. The homogeneity test used in this study was the ANOVA test with the help of SPSS P.26. As for the results obtained using the formula: if the sig value > 0.05, then the data is homogeneous (the same) if the sig value < 0.005, then the data is not homogeneous.

Hypothesis testing on research must be tested to prove the correctness of previously formulated hypotheses. In testing this hypothesis, researchers used an independent sample t-test with the help of SPSS V. 26. Singgih Santosa (2014: 79) stated that the independent sample t-test is a hypothesis test that is used to compare the averages of two groups that are not related to each other, with the aim of whether the two groups have the same average or not. Hypothesis formula:

$$t = \frac{x1 - x2}{s \left(\sqrt{\frac{1}{n1} + \frac{1}{n2}} \right)}$$

- X1 = average value (pre-test)
- X2 = average value (post-test)
- N1 = result of the amount of data (pre-test)
- N2= result of the amount of data (post-test)
- T = calculated T value
- S = Defiation Standards

Results

In this section, the researcher outlines the findings obtained in analyzing researchers' data on the application of cake game applications to improve student pronunciation. In this research model, students are divided into two classes: the control and experimental groups. Based on the test results for the two groups, the data is obtained as summarized in the following table:

Table 1

Results of prites and postes experimental classes/control classes using cake game application

No	Name	Information	Pre-test	Pos-test	Pronunciation
1	Indah	Control Group	40	40	Enough
2	Putra		20	20	Not Enough
3	Aidil		40	40	Enough
4	Ime		40	40	Enough
5	Fadilah		20	20	Enough
6	Dewi		40	60	Good
7	Guntur		20	40	Enough
8	Siska		40	20	Enough
9	muhamad hairul		20	20	Not Enough
10	Mita		40	60	Good
11	Amelia		40	80	Very Good
12	keyla putri		20	60	Good

13	Arva	Eksperimental Group	40	60	Good
14	Aira		40	80	Very Good
15	Kharunizah		20	60	Good
16	Airin		20	80	Very Good
17	Nurfadillah		40	60	Good
18	Cia		20	80	Very Good
19	Ayunun		20	60	Good
20	Abi		40	80	Very Good

The data in the table above shows the following information: The average pre-test value of the experimental group is 31.00, and the average value of the control group pre-test is 41.00. After treatment in the experimental group, the average post-test value was 70.00. The average post-test value of the control group was 30.00. Treatment in the experimental group was carried out seven times with a duration of 90 minutes for each session. This information shows significant differences between the experimental and control groups in the pre-test and post-test values. In the pre-test values, the experimental group's average value was lower than the control group's. However, after treatment, the value of the average experimental group increased significantly compared to the control group, which decreased significantly. It shows that the treatment carried out in the experimental group positively impacts increasing the post-test value. However, it is also necessary to pay attention to other factors that may affect these results, such as the participants' characteristics, the treatment's implementation, and environmental factors.

At the treatment stage, the average score of 20 students was obtained, namely 41.00, a minimum score of 20, and a maximum score of 6. The data was obtained from the summation results using the IBM v26 SPSS application. According to Susetyo (2014, p.266), SPSS is one of the data analysis programs that helps calculate, process, and analyze research data statistically from simple to complex and complex. The following explains these data displayed in a descriptive statistics table.

Table 1
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Error	Std. Deviation	Skewness	Std. Error
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Prites	20	20	40	31.00	2.283	10.208	-.218	.512

Postes	20	20	80	53.00	4.87 2	21.788	-.292	.512
Valid N (listwise)	20							

Table 2

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
prites	.361	20	.000	.637	20	.000
postes	.226	20	.009	.867	20	.010

a. Lilliefors Significance Correction

Based on the results of the normality test described, it can be concluded that the data for the pre-test is not normally distributed because the significance value (sig) obtained is 0.00, which is less than the significance level (α) used, which is 0.05. Meanwhile, the data for the post-test is declared normally distributed because the significance value (sig) obtained is 0.10, which is greater than the significance level (α) used, which is 0.05.

In inferential statistics, it is important to know whether the data is normally distributed because many hypothesis-testing methods require the assumption of a normal distribution. If the data is not normally distributed, then appropriate test methods should be used to make the resulting analysis results more accurate. In addition, by knowing the distribution of data, we can also choose the right statistical method to analyze the data and obtain better conclusions.

Tabel 3

Test of Homogeneity of Variances

		Levene	df1	df2	Sig.
		Statistic			
prites	Based on Mean	3.897	5	54	.004
	Based on Median	1.378	5	54	.247
	Based on Median and with adjusted df	1.378	5	49.451	.249
	Based on trimmed mean	3.739	5	54	.006

From the variance homogeneity test is 0.004, and the significance level used is 0.05, it can be concluded that the data is not homogeneous because the sig

value obtained is smaller than the established significance level. That is, there is a significant difference between the variances of the two data groups. In statistical analysis, it is important to know whether or not the two data groups have the same variant. If both data groups have the same (homogeneous) variance, a parametric statistical test such as a t-test can be used. However, if the two data groups are not homogeneous, then a non-parametric statistical test such as the Mann-Whitney test should be used to compare the two data groups. It is so that the analysis results obtained are more accurate and valid.

Tabel 4
Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
hasil	Pritis	9.276	.004	-4.470	38	.000	-23.000	5.145	-33.416	-12.584
	Postes			-4.470	27.784	.000	-23.000	5.145	-33.543	-12.457

Based on the independent samples t-test test results on the analyzed pre-test data, a significance value (sig) of 0.447 was obtained, which is greater than the significance level (α) used of 0.05. Therefore, it can be concluded that there is no significant difference between the pre-test values between the experimental group and the control group. In this case, H₀ (no significant differences) is accepted, and H₁ (there is a significant difference) is rejected. However, remember that such conclusions are based only on the results of statistical tests and cannot be generalized to the population as a whole. In addition, it is also necessary to pay attention to the assumptions underlying the statistical test used so that the analysis results obtained are more accurate and valid.

Discussion

In learning foreign languages, especially English, students often need help with several obstacles, including the lack of correct pronunciation (pronunciation) skills when speaking. This research intends to improve students' pronunciation skills using cake game applications. The gaming app was chosen so that students can learn the pronunciation of foreign language words in a more fun way. The results of this study stated that there was a significant influence from the use of learning media, namely cake game applications, in improving students' pronunciation abilities. The mean or average value of the control and experimental classes at the pre-test and post-test stages can be seen.

Based on the pre-test results obtained, sig values. $4.47 > 0.05$ and data from the results of pre-tests and posters for both classes, namely the experimental and control groups, it can be concluded that H1 is accepted and H0 is rejected. It signifies that gaming apps can improve students' pronunciation abilities. The results of the data analysis showed that the post-test of students was higher than the pre-test of students. If a significant value < 0.05 , then H0 is accepted, which means there is no significant influence between independent variables. If the significance value is > 0.05 , then H0 is rejected, meaning there is no significant influence between the independent and dependent variables. It aligns with research conducted by (Wilson dan Sutrisno 2022), which found a significant influence between application use and student learning.

Conclusion

Based on the results of the research and discussion above, the increase in the pronunciation of this cake game application has a positive impact on improving the ability of English pronunciation in students. It can be seen from the N results of the study. It is known that the pre-test value for the control class and the experiment was obtained Based on the results of the independent samples test on the pre-test value obtained the sig value. $4.47 > 0.05$ and data from the pre-test and post-test results for both classes, namely the experimental and control group, it can be concluded that H1 is accepted and H0 is rejected according to the test results with an independent sample test. So the application of cake game applications is very effectively used in improving pronunciation in English.

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