The Use of English Language Speech Assistant (ELSA) Speak Application to Improve Pronunciation

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Abstract

This research aimed to investigate the effectiveness of English Language Speech Assistant (ELSA) speak application in improving students' pronunciation at SMP Negeri 1 Sirenja. The research used a quasi-experimental design with an applied non-equivalent control group design. The research used a purposive sampling technique and took a sample of 57 students. The subject of this research was the eighth-grade students at SMP Negeri 1 Sirenja class A and B. B class was an experimental group while A class was a control group. The research instrument was a pronunciation test that was given as a pre-test and post-test. The data collected was analyzed by using descriptive statistics and inferential analysis using SPSS 22 version program. Based on the result of the hypothesis test (t-test), the value from the data analysis that has been conducted shows a significance value of 0.000<0,05. In addition, the alternative hypothesis (Ha) is accepted while the null hypothesis (Ho) is rejected. In conclusion, the use of English Language Speech Assistant (ELSA) speak application is effective in improving students' pronunciation.

Kata kunci: Pronunciation, (ELSA) Speak, Quasi-Experimental

Introduction

Pronunciation is a basic that is a very crucial aspect in developing English skills, it is supported by Adityarini et al. (2022), pronunciation is crucial in communication, because communication is the interaction or process of how an individual conveys ideas or knowledge to others. On the other hand, pronunciation is a way to pronounce the correct sound, so that the listeners can understand what the speaker is saying. According to Nurullayevna (2020), the pronunciation of words is a rather complex system, the components of which include the respiratory system, the vocal cords, the oral cavity and nose, the tongue, lips, and so on. The person who speaks must focus on pronouncing words, phrases, and sentences clearly when talking to avoid misunderstanding and misinterpretation. Indeed, pronunciation is still one of the problems that most students face when speaking in English because of errors in pronouncing words that can cause different meanings.

Furthermore, based on the result of the researcher's observation of the eighth-grade students at SMP Negeri 1 Sirenja in order to assess their English ability, especially pronunciation. The researcher found that they considered pronunciation as one of the most difficult language components to master. Need to know the underlying thing, that they were not familiar with the sounds they were saying. Apart from that, the lack of

pronunciation practice media in class is also one of the reasons for students' difficulties. In general, the learning media used in class are books, which sometimes students feel bored due to the lack of learning media which causes learning activities to become monotonous, making students have problems with pronunciation.

Regarding the previous paragraph, finding other media to cover students' needs is necessary. There are many techniques and media used in teaching pronunciation. Those techniques or media are aimed at facilitating students when they are learning pronunciation. According to Anggaraini (2022), technological advances have brought many opportunities to the world of education. At this time, technology is one of the important parts of life. Technology that has developed rapidly today is very influential in our lives including education. Based on technology in the field of education in the current era, many teachers can try to apply those techniques or media for the students to have good pronunciation. One of the media that can be used is an application from a mobile phone.

There are many innovations available with the term mobile learning which refers to the implementation of learning supported by mobile phone and internet access. This is in line with Manurung (2002) highlighting the use of educational technology in the individualization of language learning in a self-access centre where learner study independently. It was supported by Hasma et al., (2022), that technology is today's most valuable and effective tool to support language teaching and learning inside and outside the classroom. Then, the learning process is not only carried out in the classroom but also outside because teachers and students can access via online through applications supported by mobile phones as one of the learning media. The use of technology can help and encourage students' interest and engage them in a different way of learning. One of the benefits of technological development that can be utilized to improve students' pronunciation is application.

Maulina and Sari (2022) supported that there are several tools to support teaching and learning English like YouTube and speech recognition software. Nowadays, mobile phones are widely used every day. With the advance of technology and its easiness, the new application has been developed rapidly to facilitate the user. For instance, the students are using mobile phones for their activities such as practicing their pronunciation through an application. ELSA speak application is one of the software that can be used as a learning medium. ELSA stands for English Language Speech Assistant. This application was designed by Vu Van in 2015 and it is based in San Francisco, United States. It is an Android application that can be downloaded from the App Store or Google Play and it is designed with various features to improve students' pronunciation with an American accent. ELSA Speak application is completed with a microphone icon that the students can use directly to practice speaking like the audio has been listened to.

Additionally, Pangastuti (2021), found that the ELSA speak application has an effect on students' pronunciation in English. By using Artificial Intelligence (AI) and speech recognition are provided by the English Language Speech Assistant (ELSA) speak application, which has features that analyze each pronunciation to detect errors in pronunciation and provide guides for correct pronunciation, students can be helped because English Language Speech Assistant can show the students how to pronounce words correctly.

Method

To investigate the effectiveness of English Language Speech Assistant (ELSA) speak application in improving pronunciation, this research used a quasi-experimental design with an applied non-equivalent control group design. Two groups were taken in this research, namely the experimental group and the control group.

The research was conducted into eight meetings, including a pre-test in the first meeting to determine students' prior knowledge of the research, six meetings for the treatment, and the last meetings for a post-test. The population of the research was eighth-grade students at SMP Negeri 1 Sirenja. These VIII-grade students of this school are divided into five classes, and the total population of this research is 153 students. The sample was chosen purposively, based on the need of the research and the sample of the research was VIIIA and B. VIIIB as an experimental group while VIIIA was a control group that consisted of 57 students. This class was chosen because they obtained the same score in English subjects in the previous semester.

To collect the data, the researcher used a single instrument which is pronunciation test items administered in both pre-test and post-test gradually. It consisted 30 items of it is to test the students' word pronunciation. In terms of the word pronunciation test, the score given for each item was 2. The table below illustrates the scoring system clearly.

Table 1 The scoring system of the test

Name of Test	Number of test items	Score per Item	Maximum Score
Pronunciation Test of words	/eɪ/ = 5	2	60
	/ɑɪ/ = 5	2	
	/ɔɪ/ = 5	2	
	/aʊ/ = 5	2	
	/oʊ/ = 5	2	
	/ɪə/ = 5	2	
Total	30		60

After collecting the data, the data was statistically analyzed with the SPSS 22 version program by using two steps, namely descriptive analysis and inferential analysis.

Results

The research was conducted by two samples with different treatments. Teaching and learning process in the experimental group used English Language Speech Assistant (ELSA) speak application as a learning media while, the control group was taught using books as a learning media. The result of the research shows the influence of the use of English Language Speech Assistant as a learning media and conventionally. The result of descriptive statistical analysis shows students' learning outcomes in understanding pronunciation material

This section displays the students' pronunciation scores in both classes, including mean scores of pre-test and post-test, and standard deviation of the students, to improve pronunciation of the research results. Tables were used to organize the data, and the SPSS 22 version program was used to compute the students' scores as can be seen in the table below:

Table 2 Descriptive Statistics Experimental and Control Group

	N	Minimum	Maximum	Mean	Std. Deviation
PreTest Experimental	30	35	67	49.07	8.820
PreTest Control	27	32	65	44.22	9.099
PostTest Experimental	30	69	95	82.53	7.055
PostTest Control	27	43	88	59.22	10.165
Valid N (listwise)	57				

According to table 1, the lowest score of the experimental group pre-tests was 35, while the highest score was 67. Then, in the post-test scores, the lowest score was 69 and the highest score was 95. The mean score of pre-tests was 49.07 and the mean score of post-tests was 82.53. Additionally, the experimental group's standard deviation was 8.820 in the pre-test and 7.055 in the post-test. In contrast, the lowest score of the control group pre-tests was 32, while the highest score was 65. Then, in the post-test scores, the lowest score was 43 and the highest score was 88. The mean score of the pre-test was 44.22 and the mean score of the post-test was 59.22. Additionally, the standard deviation of the control group was 9.099 in the pre-test and 10.165 in the post-test.

Result of Inferential Analysis Statistic
Test of Normality

Table 3 Test of Normality

	Class	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Students learning outcomes	Pre-test Experimental	.095	30	.200*	.965	30	.408
	Post-test Experimental	.116	30	.200*	.973	30	.631
	Pre-test Control	.157	27	.086	.931	27	.071
	Post-test Control	.068	27	.200*	.963	27	.422

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

In analyzing the normality of the data test of pre-test and post-test in the experimental and control groups scores (sig.) The significance value (sig.) of the pre-test and post-test can be seen in the analytical test result above. The pre-test significance value in the Kolmogorov-Smirnov column was 0.200 in the experimental group and 0.086 in the control group. Based on the results of the normality test between the pre-test and the post-test of the experimental group and the control group show that the distribution of the data was normal because the significance value of both classes was >0.05.

Test of Homogeneity

Table 4 Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Students learning outcomes	Based on Mean	2.231	1	55	.141
	Based on Median	2.116	1	55	.151
	Based on Median and with adjusted df	2.116	1	47.322	.152
	Based on trimmed mean	2.169	1	55	.146

   After getting the normality test, the next step was the homogeneity test. It purposed to test the similarity of the sample in both classes. The result of the data, the significance score of 0.141 was higher than > 0.05. It means that the mean score of the post-test of the experimental and control group was homogeneous.

Test of Hypothesis

   The researcher can do the hypothesis after performing the normality and homogeneity tests on the existing study data. Hypothesis testing was putting a statement to the test using statistical methods to see if the results were significant. The researcher can decide whether the hypothesis was accepted or rejected by statistically testing it. The paired sample t-test and the independent sample t-test were used in this research. A paired sample t-test was used to determine whether there were significant differences in students' pronunciation before and after treatment in the experimental and control groups. Meanwhile, the independent sample t-test was used to find out whether or not there was significance in students' pronunciation between the experimental group and the control group.

Paired sample t-test

Table 5 Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PreTest Experimental	49.07	30	8.820	1.610
	PostTest Experimental	82.53	30	7.055	1.288
Pair 2	PreTest Control	44.22	27	9.099	1.751
	PostTest Control	59.22	27	10.165	1.956

   To accompany statistical findings, reflect the mean of each class. Column N denotes the number of samples or students from each class who served as research subjects; 30 students in the experimental group and 27 in the control group. Meanwhile, the mean or average value per test of each class column revealed that the pre-test mean score for the experimental group was 49.07, and the post-test mean score was 82.53. On the other hand, the control group's mean score was 44.22, and the post-test score was 59.22. Based on the result of this score, the post-test in the experimental group improved significantly. The specifications of the t-test result are as follows:

Table 6 Paired Samples T-test

Paired Differences

		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		T	Df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	PreTest Experimental PostTest Experimental	-33.467	6.553	1.196	-35.914	-31.020	-27.971	29	.000
Pair 2	PreTest Control PostTest Control	-15.000	4.616	.888	-16.826	-13.174	-16.885	26	.000

Table 6 describes the difference based on the mean score between pair 1 and pair 2. In pair 1, the mean score of the post-test experimental group was higher than the pre-test experimental group (49.04<89.53). Meanwhile, in pair 2, the result of the mean score of the post-test in the control group was higher than the pre-test (44.22<59.22). Meanwhile, in pair 2, the result of the mean score of the post-test in the control group was higher than the pre-test (44.22<59.22). Then, based on table 7 showed that the score sig. was 0.000 which indicates that Ha (alternative hypothesis) is accepted, and the Ho (null hypothesis) is rejected. In conclusion, the use of English Language Assistant (ELSA) Speak Application is effective in improving students' pronunciation.

Independent sample t-test

Table 7 Independent Sample T-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
Students learning outcomes	Equal variances assumed	2.231	.141	10.141	55	.000	23.311	2.299	18.704	27.918
	Equal variances not assumed			9.952	45.725	.000	23.311	2.342	18.596	28.027

Based on the table above, the score of sig. (2-tailed) in the equal variances assumed section was 0.000 lower than 0.05 which means that there was a significant influence between the experimental group and the control group in the post-test. According to the hypothesis guidelines, a significant value above 0.05 (0.000<0.05) means the null hypothesis (Ho) is rejected, whereas the alternative hypothesis (Ha) is accepted.

Discussion

The researcher investigated the effectiveness of using English Language Speech Assistant (ELSA) speak application as a learning media in teaching pronunciation. The distribution of the test, implementation of the treatment, and data collection exhibited that the research hypothesis was accomplished. Based on table 6, indicates that the result of students in the experimental group after using English Language Speech Assistant (ELSA) speak application obtained higher scores rather than students in the control group. This statement was approved by the results of the pre-test and post-test in the experimental class.

In this case, English Language Speech Assistant (ELSA) speak application can interest the students in learning pronunciation, because the features in this application are very useful for students to practice their pronunciation. Rineapi et al., (2022) claimed that English Language Speech Assistant (ELSA) speak application program is good enough to serve as an online medium. By using ELSA speak application, the students gained new knowledge such as how to pronounce each sound properly, how to make the sounds, and common mistakes with each sound. Akhmad and Munawir (2022) found that the use of English Language Speech Assistant (ELSA) speak application has been proven to have a significant effect in improving students' pronunciation. This is supported by Widyasari and Maghfiroh (2023) ELSA speak application is very useful in improving pronunciation with several interactive features provided. Moreover, the students were more active in the class because, in the introduction of the sound and practice section, they had to pronounce the words based on what the application showed.

In the inferential analysis, it was applied hypothesis testing to test the hypothesis of the research. In this research, the SPSS program was applied. Before testing the hypothesis, firstly the researcher conducted the normality and homogeneity test. Based on the result of the analysis, the data obtained were normally distributed and homogeneous. Then, the t-test can be carried out. The result shows that the significance effect is $0.000<0.005$, which means that the Alternative hypothesis (Ha) is accepted while the Null hypothesis (Ho) is rejected. Hence, the conclusion of this research that the use of English Language Speech Assistant (ELSA) speak application is effective in improving students pronunciation at SMP Negeri Sirenja.

Conclusion

Based on the results of the tests and the analysis of the data, there was an improvement in students' pronunciation after using English Language Speech Assistant (ELSA) speak application in the experimental group. It can be seen from the improvement of students' scores in both classes pre-test and post-test. The pre-test mean score of the experimental group was 49.07, while the control group's pre-test mean score was 44.22, based on statistical analysis, the data in the experimental group had a higher mean score in the post-test was 82.53 while the control group got lower mean score which was 59.22. Furthermore, the t-test results showed that the alternative hypothesis (Ha) was accepted while the null hypothesis (Ho) was rejected based on the significance value of $0.000<0.05$. In conclusion, the use of English Language Speech Assistant (ELSA) speak application is effective in improving students' pronunciation.

Acknowledgment

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