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Elsa Speak Application As Artificial Intelligence Tools To Enhance Students' Pronunciation Skills In Rural Area

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Abstract

Both EFL teachers and EFL students perceive limitations in all educational aspects such as difficulties in implementing the curriculum, limited learning support resources, and the use of technology in teaching-learning. This research seeks to bring sophisticated technology in the form of artificial intelligence called ELSA SPEAK to assist students in speaking English fluently. Designed with a pre-experimental design, 20 students participated in this research. They were assigned to spell 30 different words on the pretest and posttest. As a result, students' pronunciation skills increased with the use of ELSA SPEAK. It was proven by statistical testing $.000 < .005$ The positive response from students regarding ELSA SPEAK followed by their high motivation and participation. ELSA SPEAK also provides the student with corrective feedback that leads them to discover their errors and fix them. It should be a trigger for EFL teachers to intensively use technology in learning every English language skill.

Keywords : ELSA SPEAK, Pronunciation Skills, Rural Area

INTRODUCTION

The complexities of life necessities and global problems that come about in the world require people to be able to survive. Upgrading competencies and skills, having critical thinking as the 21st learning style, utilizing technology (Khoiroh, 2022), and mastering international language are the four top things that people must have in this era. (Bel & Sciences, 2021) in the case of mastering an international language, learning English is undeniable. The various aspects of life such as social, science, economics, and politics are written and spoken with English as the most spoken language in the world. Thus, communicating in English nowadays is not merely learning

a foreign language and a trend, but also a provision to confront the demands of the 21st century. (Satyaputri & Soraya, 2021)

As a productive skill, speaking English is a crucial skill that has to be mastered. Aiming to deliver a meaningful message, speaking English must consider two essential aspects; fluency and accuracy. Fluency refers to the ability to speak smoothly and effortlessly. Equally important, accuracy concerns the sentence construction and word choice as well as the comprehensible produced sentence. People who can speak fluently and accurately are better able to convey the message than those who are not. On the other hand, people whose mother tongue is not English feel tough to speak English fluently. Their accent from their native language is quite different from the stress intonation of standard English. (Fachrunnisa & Nuraeni, 2022) Moreover, Indonesia has myriad regional languages with accentuation stress such as Madurese, Sundanese, Batak, Manado, and Papua. The obstacles are not only encountered by people but also by the learners. EFL learners at the primary level deal with the fluency problem because they don't have sufficient knowledge concerning how to pronounce English words correctly. (Darsih & Asikin, 2020)

Nawawi and Christianti (2020) asserted some factors affecting EFL learners' barriers to pronouncing English words fluently is EFL teachers' omission, their teachers did not make any corrections for their errors. (Nawawi & Chirstianti, 2020). Another affecting is there has been less speaking assessment that focused on both two aspects, they are fluency and accuracy. Most speaking assessments are more focused on accuracy than fluency. (Hafizhah, 2023)

Anchored on that aforementioned speaking issue, the notion of speaking fluently had been one of the pivotal matters that should have emerged earlier at the commencement of producing English in the form of spoken language. Dealing with fluency in speaking English, the utilization of technology is highly encouraged. (Maslin, 2021) some research conducted by previous researchers has uncovered the positive impact of the integration of technology in EFL classrooms. (Fahmi et al., 2020; Nugroho et al., 2022; Sholah, 2020) technology raises students' motivation and participation, creates classroom more interactive and raises students' autonomy in learning.

Over time, teachers' correction of pronunciation also altered in a modern way. In the past, students knew how to pronounce from dictionaries and from their teachers, from listening to songs or watching films on TV and the internet. Meanwhile, technology is proposed easier and more attractive by "Artificial intelligence". (Marjun & Sa'adah, 2022) AI now has been increasingly developed and commonly used in various fields such as business, networking, commercials, and education. (Rinaepi et al., 2022) Artificial Intelligence can also be called machine intelligence. Artificial Intelligence is intelligence shown by machines, different from natural intelligence shown by humans and animals or others. Some of the activities designed to be carried out are speech recognition, learning, planning, and

problem-solving. (Keerthiwansa, 2018) welcoming these good things, Ai is also an integrated educational setting. Several research studies have examined the role of AI in foreign language learning classrooms. Ma Li (2022) asserted that using Ai in English classes can improve students' level of English proficiency which also combines with the constructivism learning model. In the pronunciation section, As for the various applications for learning pronunciation made from Artificial Intelligence, such as Cake, Speak It Right: English Pronunciation Practice, English Pronunciation by Yobimi Group, Sounds: Pronunciation App FREE, fluentU: Learn Languages with Video, English Pronunciation by Kephem, Learn English Sound Right by British Council, IELTSAce and ELSA Speak.

Based on preliminary research, EFL teachers in the research site know about some applications that can be integrated and used in teaching speaking. But, they don't want to try to utilize it in the teaching-learning process. One of the applications that EFL teachers know is ELSA SPEAK. ELSA Speak application is one of the smart Artificial Intelligence technologies for language learning, especially for learning to speak and pronounce. ELSA. Speak is Located in San Francisco and was founded in 2015 by Vu Van. ELSA stands for English Language Speech Assistant. It is an Android application that can be freely downloaded from App Store or Google Play. It is designed with various features to improve the learners' pronunciation and help learners to speak English, fluently, and confidently, with the American accent by exercising them with various practices to pronounce words, phrases, and sentences correctly. The features provided in this app are designed to exercise the learners to say the words correctly such as vowels, consonants, and word stress. It is completed with a microphone icon that the learner can use it directly to practice speaking as the audio has been listened to. (Samad & Ismail, 2020)

As has been previously reported by (Pinontoan et al., 2022) the use of ELSA SPEAK is appropriate as the teaching media. it affected students' learning outcomes is also can be concluded that students' pronunciation ability has significantly improved after using the teaching media. Similarly, (Saragih et al., 2021) found that student's attitude toward the use of ELSA SPEAK in pronunciation activity was positive. Students are more interested and more confident in speaking English when they know how to pronounce it after practicing with ELSA SPEAK. These findings were closely interlinked with what (Kholis, 2021) found in his research, ELSA Speak can improve the students' pronunciation skills well and effectively. Indeed, it can motivate the students to engage in learning to pronounce. The results showed that ELSA Speak can increase the students' pronunciation skills. It can be seen from the average scores obtained from the teaching cycles from two to four in grade. ELSA Speak has assisted learners in pronouncing a wide range of words more easily and comprehensively. Furthermore, the app's available features, such as rapid feedback and enable learners to pronounce precisely.

However, the research subjects of this previous literature are students who are in urban areas such as Semarang, Bandung, Jakarta, and Makassar.

No study has yielded for students who live in rural areas. This phenomenon should not have occurred. Every learner must be introduced to technology. Hence, the present study brings technology in the form of Ai to schools in a rural area which is located in Lamongan. Further, a challenging problem that arises in the domain is “Do students of MTs Salafiyah Cungkup achieve better pronunciation scores after being taught by using the ELSA Speak application?” Ultimately, The objectives of this study was partially met by introducing and integrating Artificial intelligence to students in the rural area.

METHOD

Due to the limited number of students, this study employed a pre-experiment design. It involved pre-tests and post-tests to measure students' pronunciation. The researcher gave a pre-test to students before giving the treatment. The treatment was given for four weeks including the post-test. Treatment was done three times a week. When the treatment was completed, the researcher gave a post-test. Both in the pre-test and post-test, students were asked to pronounce thirty words related to favorite things and family. Also, in the post-test they were asked to pronounce things around us.

The amount of effect of the treatment can be accurately known by comparing pre-test and post-test results. The effectiveness of the instructional treatment is measured by comparing the average score of the pre-test and the post-test. When it turns out that the post-test average score is significantly higher than the average score of the pre-test, then it is concluded that the instructional treatment is effective.(Gorin et al., 1994)

Research Instrument

In assessing students' pronunciation, the researcher used a scoring rubric adapted from the English Language Screening Test - Speaking and Comprehensibility Rubric by the University of Colorado. This fluency scoring rubric has been utilized by previous research such as (Kholis, 2021; Rinaepi et al., 2022) the rubric pays attention to intelligibility, fluency, accuracy, intonation, and stress. 20 students of high schools took part in this study. They did pre-test and post-test which are examined by two inter-rater reliability. They are other EFL teachers who came from town.

In experimental research, the normality test is a must. This was undergone to know whether the data was distributed normally or not which was continued to T-test.

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		20
Normal Parameters ^{a,b}	Mean	0E-7
	Std. Deviation	6,89853382
	Absolute	,132

Most Differences	Extreme Positive	,129
	Negative	-,132
Kolmogorov-Smirnov Z		,590
Asymp. Sig. (2-tailed)		,877

Table 1. Normality test

From the results of the normality table above, it can be seen that Sig. (2-tailed) is greater than 0.05 (0.877 > 0.05). It shows that the test distribution is normal.

FINDINGS AND DISCUSSION

Descriptive Statistics

	N	Minimum	Maximum	Sum	Mean
pretest	20	50	85	1320	66.00
posttest	20	65	90	1560	78.00
Valid N (listwise)	20				

Table 2. Descriptive Statistic

It can be pointed out from the table that the score of the pretest was increased in the score of the post-test. Equally important, the T-test was done and the result can be seen as follows:

T-Test	T-Table	Comparison	
7,712	2.093	t-test > t-table	Significant

Table 3. T-test and T-table

Paired Samples Test

	Paired Differences					T	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 pretest - posttest	-12,000	6,959	1,556	-15,257	-8,743	-7,712	19	,000

Table 4. Paired Samples T-test

By comparing the t-test and t-table values to find out that the use of the ELSA Speak application in students' pronunciation was influential, and to find out the degree of freedom (df), the researcher used the formula $N-1=20-1=19$.

From Table 4.2, it can be concluded that the t-test is higher than the t-table ($7.712 > 2.093$) and the significant value is lower than the significant level ($0.000 < 0.05$). It can be concluded there is an effect on the pronunciation of students who are taught using the ELSA Speak application.

Based on the findings, the students' pronunciation scores before using the ELSA Speak application indicated that the pronunciation of class VII students at MTs Salafiyah Cungkup was not good. That's because most of the students don't know how to pronounce some words properly and precisely.

In the treatment, at the first meeting, the researcher found that most of the students had difficulties in pronunciation because most of the students still found it difficult to pronounce some sounds. In the second to last meeting, they tried to pronounce some sounds well and also paid attention to the explanations given by the researcher at the end of each meeting. When the researcher implemented the ELSA Speak application in teaching and learning English until the last meeting for treatment, the researcher gave a post-test to measure student scores. After giving the post-test, the researcher tried to see the effect of the ELSA Speak application on students' pronunciation. In the pre-test, students got an average score of 66 and in the post-test got an average score of 78. This means that there is an effect on students' pronunciation after being treated using the ELSA Speak application.

Thus, from the statistical testing, the research question was answered. Students of MTs Salafiyah Cungkup Lamongan achieve better in pronunciation after being taught with ELSA SPEAK. These findings follow findings reported by (Kuningan, 2009) who affirmed that the ELSA app also could make the students more easily practice some words and sentences. They were more enjoyable to learn the material and easy to play with this app. The students could not be stuffy, bored sleepy, or similar, because they were asked to take part in the lesson, their attention would be focused on the materials being presented without making any other negative action, and minimize the mistakes of pronouncing the words. His finding was in line with (Ma, 2021) the using of Artificial Intelligence in class which was integrated with any language skills and language elements to attract students' participation and engage them more in the teaching-learning process. The features of artificial intelligence were new and interesting to be trained by both teachers and students. Ma also echoed that the continuity of artificial intelligence used in foreign language learning can boost students' autonomy to be higher level.

It was also supported (Saragih et al., 2021) who found that students' pronunciation skills were better than before using ELSA SPEAK. Before using ELSA, the score of pronunciation was low, it was 60 and became 88 after being treated with ELSA. Findings that she asserted that the ELSA Speak

application also provides experiences about problems in pronunciation that stimulate students to achieve an understanding of the words analyze and construct them so that new knowledge is formed in the individual. On the whole, ELSA assisted them in pronouncing words correctly by discovering the correct version. Because the inter-rater asked students to pronounce continuously until they got the right pronunciation. ELSA gave them specific feedback based on the errors made. As a matter of fact, the use of ELSA was the realization of integrating mobile-assisted language learning (MALL) in EFL classes. As (Arroba & Acosta, 2021) elucidated the use of MALL was the revolution of computer-assisted language learning (CALL). It puts forward the compatibility and flexibility of the integration technology in foreign language classrooms. (Nursafira, 2020) also strengthen that the use of technology can improve students' speaking skills and eliminate students' anxiety in speaking. Employing another artificial intelligence which was TED talks, she found that students became more confident, and curious about how to pronounce English well. Because TED talks can provide them native speaker to have conversation with the user.

The contentment of the technology integration was perceived by both EFL teachers and EFL learners in urban areas where the facilities and equipment were supported to be achieved. (Syathroh et al., 2020) This enjoyment encourages students to keep up with the technology in language learning and eases EFL teachers to teach speaking skills, especially pronunciation. Nevertheless, Students who lived in rural areas would not apprehend enjoyment if the EFL teachers did not attempt to provide the technology in language learning classes. Thus this research has relied on this phenomenon.

CONCLUSION

Taken as a whole, Elsa turned out to have a positive effect in the form of enhancing students' pronunciation. It was reflected in the score of the pre-test and post-test and also the result of the Paired T-test. Students' pronunciation skills are better by integrating ELSA Speak than before. The introduction of technology which is easy to use, interesting, and interactive enables students to be engaged and increases motivation and participation. Furthermore, ELSA was equipped with some features with easy to use, and provide corrective feedback for students' errors made. Furthermore, ELSA belongs to mobile-assisted language learning (MALL) tools which are flexible and portable. These excesses provide students the opportunity to learn more and more and to fix the errors in their way. Along with this, there are no toughs and hesitate to introduce technology to students in rural areas. All of the students whenever they live and study, they have the same right to get a better education.

Future work is necessary to expand students' pronunciation skills with other sophisticated technology that allows them to practice pronunciation with native speakers. This kind of application has been developed and considered as one of the better sources of learning in speaking English.

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