# MOBILE-ASSISTED LANGUAGE LEARNING WITH ELSA SPEAK: ENHANCING STUDENTS' ENGLISH PRONUNCIATION THROUGH THE UTILIZATION OF THE *ELSA SPEAK* AT SMK SPAN MEDAN

***[1]Kresna Ningsih Manik, Jamaluddin Nasution**
**Merry Susanty Br. Tarigan, Yenita Br. Sembiring**

*[1]Doctoral Program of English Applied Linguistics, Universitas Negeri Medan, Indonesia*
*English Education Department, Universitas Prima Indonesia, Indonesia*

*Author's email:*
*kresnaningsihmanik@unprimdn.ac.id*

**Corresponding E-mail: kresnaningsihmanik@unprimdn.ac.id*

**Abstract:** *This study aimed to examine the impact of the ELSA Speak application on students' development in English pronunciation. A pre-experimental design was employed, and the research was conducted at SMK Penerbangan Angkasa Nasional (SPAN) in Medan. The participants were 35 third-grade (class 12) students from the Office Automation & Governance (Airport) department. The researchers adopted a quantitative case study approach and selected the participants using purposive sampling. Analysis of the pre-test and post-test results revealed that the ELSA Speak application contributed positively to students' pronunciation skills. The average post-test score (83.49) exceeded the average pre-test score (77.20), suggesting improvement. The normalized gain (N-gain) score, used to assess the enhancement of scientific process skills and cognitive learning outcomes before and after the intervention, was found to be 5.5. This result indicates that the ELSA Speak application was moderately effective in enhancing students' English pronunciation skills.*

**Keywords:** *ELSA Speak Application; Media; Mobile-Asisted Language Learning* (*MALL), Pronunciation.*

## 1. INTRODUCTION

Pronunciation plays a crucial role in how others perceive our spoken English. It is one of the key elements that listeners notice during a conversation. Therefore, when communicating in English, it's not only the choice of vocabulary that leaves an impression, but also how the words are pronounced. Clear and accurate pronunciation contributes significantly to effective communication.

Advancements in technology have expanded opportunities for interaction, contextual learning, and informal education. With the rapid development of educational technology, teaching and learning processes have been transformed. A wide range of digital tools, along with easier internet access, enables students to acquire knowledge more efficiently. One such tool is ELSA (English Language Speech Assistant), which offers personalized support to improve pronunciation and speaking skills.

Mobile-Assisted Language Learning (MALL) has emerged as a powerful instructional approach in the digital age, offering flexible, accessible, and interactive platforms for language development. Among the various language skills, pronunciation is particularly well-supported by MALL due to the auditory, visual, and speech recognition technologies integrated into mobile applications.

MALL enables learners to engage with authentic pronunciation models and receive instant feedback on their speech. Tools such as ELSA Speak, Duolingo, Google Speech Recognition, and Forvo are designed to support phonetic accuracy through speech analysis and repetition. These applications often incorporate automatic speech recognition (ASR) systems, which can detect pronunciation errors and guide learners toward correct articulation (Derwing & Munro, 2015).

Unlike traditional classroom methods that may not provide sufficient individual speaking time or corrective feedback, mobile platforms allow for self-paced, repetitive practice, which is

essential for mastering segmental (individual sounds) and suprasegmental (intonation, stress, rhythm) features of pronunciation (Godwin-Jones, 2011).

Furthermore, MALL promotes learner autonomy and motivation, key factors for pronunciation improvement. Students can practice in diverse contexts—anytime and anywhere without the pressure of peer judgment, which often occurs in classroom speaking tasks (Burston, 2014).

Several studies have confirmed the effectiveness of MALL in improving pronunciation. For instance, Zou, Li, and Li (2018) demonstrated that Chinese EFL learners using mobile pronunciation tools showed significant gains in phonological awareness and intelligibility. Similarly, Sarani and Sahebi (2012) found that Iranian learners using mobile software outperformed those using conventional methods in pronunciation accuracy.

Speak application is designed to help students speak English in a simple, fluent, and confident manner (Darsih, Wihadi, & Hanggara, 2020). From the statement above, the researchers believe that the ELSA app is appropriate for teaching and learning. This app also features the seven Best English Pronunciation Apps (2019), which help students speak English clearly, smoothly, and confidently.

The ELSA Speak application can detect the user's mispronunciation with more than 95% accuracy. The app can also receive advanced feedback to correct its pronunciation errors. This feature is one of the things that distinguish ELSA from other applications. That way, this application is hoped to help students improve their ability to speak English properly and correctly, especially in pronunciation.

Pronunciation is the act or method of pronouncing a word. According to Hammer (2007), learning pronunciation has some problems for the learners; some learners have great difficulty hearing the pronunciation from speakers who speak from different native languages that might have a different sound in their pronunciation (what students hear). When learners want to learn some foreign languages, they often have a problem using physical unfamiliarity (what students say), then some learners have a great difficulty in identifying the different of rising and falling patterns (intonation). According to Harmer (2001), many teachers do not pay enough attention to English pronunciation.

A related previous study investigated students' perceptions of pronunciation lessons in the ELSA Speak application (Samad & Aminullah, 2018). They found that students rated this an application that makes use of automatic speech recognition to provide immediate feedback on the user's pronunciation and allows the user to adjust the automatic speech recognition as very good for learning pronunciation.

In responding the explanation above, this study presents to investigate the effectiveness of Elsa Speak as AI powered tool to improve the student's pronunciation development or to find out how significant Elsa Speak to improve the students' pronunciation skill in SMK SPAN Medan is.

## 2. LITERATURE REVIEW

### *2. 1. ELSA Speak Application*

ELSA Speak (English Language Speech Assistant) is a mobile application powered by Artificial Intelligence (AI) that helps English language learners improve their pronunciation, fluency, and speaking confidence. It uses Automatic Speech Recognition (ASR) technology to analyze users' speech and provide instant, detailed feedback on pronunciation, intonation, rhythm, and word stress.

The app offers personalized learning paths based on the learner's native language and speaking goals, making it a flexible and adaptive tool for learners at different proficiency levels. ELSA Speak is especially effective for self-paced learning, as it allows users to practice anytime and anywhere, outside of traditional classroom settings.

In the context of language learning, ELSA Speak is considered a Mobile-Assisted Language

Learning (MALL) tool, contributing significantly to oral proficiency development, particularly in English pronunciation training.

*2. 2. Pronunciation*

Pronunciation refers to the manner in which a word is articulated or spoken. It is a fundamental component of oral communication and plays a vital role in language intelligibility and fluency. Harmer (2007) emphasizes that learners frequently encounter a range of difficulties in acquiring accurate pronunciation. One of the primary challenges is perceptual, many learners struggle to clearly hear and differentiate between unfamiliar sounds, particularly when those sounds originate from native speakers whose phonological systems differ significantly from the learners' own language backgrounds. This auditory barrier, often referred to as "what students hear," can impede their ability to mimic and internalize correct pronunciation.

In addition to perceptual challenges, learners also face issues in sound production or articulation described as "what students say." When speaking a foreign language, learners may find it difficult to physically produce unfamiliar sounds due to the absence of those sounds in their native phonetic inventory. This physical unfamiliarity may result in mispronunciations that hinder communication. Another area of difficulty involves prosodic features of speech, such as stress, rhythm, and particularly intonation. Learners often have trouble distinguishing rising and falling intonation patterns, which are essential for expressing meaning, emotions, and sentence types (e.g., questions versus statements).

Despite its importance, pronunciation often receives insufficient attention in language instruction. Harmer (2001) observes that many teachers tend to neglect pronunciation in their teaching practice, either due to a lack of confidence in teaching it or the misconception that it is less important than grammar or vocabulary. Furthermore, learners themselves may underestimate the value of pronunciation, believing that it is not necessary for effective communication or viewing it as a time-consuming and difficult aspect of learning. This attitude can further reduce the emphasis placed on pronunciation in language classrooms.

However, neglecting pronunciation can have significant consequences. Inaccurate pronunciation may lead to misunderstandings, limit learners' ability to participate in conversations, and reduce their confidence in speaking. Therefore, integrating pronunciation into language teaching is essential not only for improving learners' speaking skills but also for fostering their overall communicative competence.

*2.3. Media*

Media refers to any tool or instrument used to deliver messages or information from one location to another. In the context of education, media plays an essential role in facilitating and enriching the teaching and learning process. Teachers often utilize various forms of media to make learning more engaging, effective, and accessible for students. As stated by Bakri (2011), the term *media* is the plural of *medium*, which originates from the Latin word *medius*, meaning "middle." When media is used specifically to convey instructional content or learning objectives, it is referred to as instructional or teaching media.

The use of media in education offers several advantages. It helps to present learning materials in a more engaging and understandable way by making abstract concepts more concrete and visually appealing. Teaching media encompasses a wide range of tools and aids—both traditional and digital—that support teachers and learners in achieving specific educational goals. In recent years, there has been a significant shift in the types of media employed in classrooms, particularly with the rapid development of mobile technology.

Over the past decade, mobile phones have increasingly taken over functions once limited to computers, such as reading and editing documents, accessing multimedia content, playing educational games, and browsing for information. This shift has made mobile devices a practical and powerful resource in educational settings. For teachers, mobile technology offers greater

flexibility and a wide array of applications that can support instruction across different subjects and skills.

One such mobile application is ELSA Speak (English Language Speech Assistant), which is specifically designed to assist learners in improving their English pronunciation. The app utilizes artificial intelligence and speech recognition technology to provide personalized feedback, enabling students to practice and refine their pronunciation independently and effectively. This kind of mobile-assisted language learning tool is particularly beneficial in language education, as it supports repetitive, individualized, and contextual learning outside the limitations of the classroom. Thus, integrating ELSA Speak into the language learning process not only enhances pronunciation practice but also contributes to more autonomous and technologically enriched learning experiences.

## 3. RESEARCH METHODOLOGY

### *3. 1. Research Design*

This research used a pre-experimental research design to answer the research questions. In this research, the researchers chose one class as a sample. Sugiyono (2014) stated that pre-experimental designs are designs that include only one group or class undergoing pre- and post-tests. In this study, the researchers only used the experimental group without the control group.

### *3. 2. Research Variables*

This quantitative research used two variables: the student's pronunciation as the independent and the ELSA Speak Application as the dependent variable. To make the variable in this research clearer, below is the operational definition of the two variables:

*a. Pronunciation*

Pronunciation is the act or method of pronouncing a word. Graphical representations of linguistic utterances, wording, especially accepted or generally understood methods, and phonetic symbols.

*b. ELSA Speak Application*

ELSA is an EFL/ESL pronunciation development app designed which is based in the United States, with over 1200 exercises to help learners sound like native speakers. The software is used by millions of language learners worldwide.

### *3. 3. Subject*

In choosing the research participants, the researchers used a purposive sampling technique. The subjects chosen for this investigation were the second-grade students of SMK SPAN Medan. The reason was because it fits the criteria in this study.

### *3. 4. Research Instrument*

This research used measured social and natural context. Questionnaire and interview as the instrument. Measurement tools in research are usually known as research instruments. The use of research instruments is to measure the observed natural and social context. Specifically, all these phenomena are known as research variables (Sugiyono, 2012). The exam is administered as a pre-exam and a post- examination. The purpose of the pre-test is to determine the students' pronunciation level before using the ELSA Speak app, and the purpose of the post-test is to determine the student's improvement in pronunciation after using the ELSA Speak app.

### *3. 5. Procedure of Data Collection*

*a. Pre-Test*

In the pre-test, the researchers gave a pronunciation test using 20 vocabularies with similar pronunciation and then asked students one by one in front of the class to read in front of the class to assess their pronunciation, which covered fluency, accuracy, and intonation.

*b. Treatment*

The researchers gave training and instruction toward operating ELSA Speak. The students were enthusiastic and motivated to learn. They got opportunities to know the errors and mistakes in sounding words in responses to the system of the application. The correction and feedback were immediately given.

*c. Post Test*

The researchers used the ELSA Speak application to give the post-test. The test has been provided by the ELSA Speak application.

*3. 6. Technique of Data Analysis*

The researchers analyzed the data using the Social Science Statistical Package (SPSS). Data analysis is a real effort to increase data reliability, to know the difference between value methods, and to organize data well. Analysis of this data helps to determine score differences between pronunciation performance scores of students taught using the ELSA Speak application.

## 4. RESULT AND DISCUSSION

The findings in this study are related to the students' pre-test and post-test results by applying the techniques explained in the previous chapter. The pre-test is given to students by preparing some vocabulary with similar pronunciation before giving treatment using the Elsa Speak application. While the post-test was given after the treatment to determine the effect of the Elsa Speak Application on student pronunciation. The data was taken at SMK SPAN Medan. This research's findings show students' scores, including accuracy, fluency, and intonation.

Based on the pre-test score with a mean score of 77.20, it can be classified that the students' score is included in the Fair category. After giving treatment, the researchers gave a post- test to assess if there was any improvement in the student's pronunciation. Based on the post, the mean score of students is 83.49, which can be classified as an increase in student scores after being given treatment with the category of Good.

### *4.1. The Frequency and Rate Percentage of the Pre-Test and Post-Test Scores of Students' Pronunciation*

**Table 4.1** The Frequency and Rate Percentage of the Pre-Test and Post-Test Scores of Students' Pronunciation

| No | Classification | Score | Pre-Test | | Post Test | |
|---|---|---|---|---|---|---|
| | | | Frequency | Percentage | Frequency | Percentage |
| 1 | Very Good | 90-100 | 0 | 0 | 8 | 22.85 |
| 2 | Good | 80-89 | 8 | 22.85 | 23 | 65.71 |
| 3 | Fair | 70-79 | 22 | 62.85 | 3 | 8.57 |
| 4 | Poor | 60-69 | 5 | 14.28 | 1 | 2.85 |
| 5 | Very Poor | 0-59 | 0 | 0 | 0 | 0 |
| **Total** | | | 35 | 100 | 35 | 100 |

Table 1 shows that on the pre-test score classification, no students got very good scores. The students who got good scores were 8 (22.85%), students who got fair scores were 22 (62.85%), and students who got poor scores were 5 (14.28%). The post-test score classification in Table 1 shows that there are 8 (22.85) students who got very good scores, the number of students who got good scores was 23 (65.71%), while the students that got fair scores were 3 (8.57%), the number of students that got poor score was 1 (2.85%), and there is no student who got very poor score. The students' post-test scores show that there is a big difference if compared with the pre-test score. The number of students who got good scores were drastically increased. Based on the data above, the researchers concluded that the rate

percentage of post-test scores was higher than the pre-test.

**4.** *2. Students' Mean Score and Standard Deviation in the Pre-Test and the Post-Test*

**Table 2.** Students' Mean Score and Standard Deviation in the Pre-Test and the Post Test

| | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Pair 1 | Pretest | 77.20 | 35 | 6.053 | 1.023 |
| | Posttest | 83.49 | 35 | 6.896 | 1.166 |

Table 2 shows that the students' mean score on the pre-test was 77.20. This score is in the poor classification; the standard deviation score in the pre-test was 6.053. The table also showed the students' mean score in the post-test was 83.49. This score is in the good classification, and the standard deviation score in the post-test was 6.896. The data was processed using SPSS 21 and the table showed that the students' mean score in the post-test was higher than the mean score in the pre-test.

*4.3. Students' T-Test of Pre-Test and Post- Test*

**Table 3.** Student's T-Test of Pre-Test and Post-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 | -6.286 | 3.511 | -5.93 | -7.492 | -5.080 | -10.591 | 34 | .000 |

Based on Table 3, the paired sample test shows that $\boldsymbol{t0}$ ($\boldsymbol{tcount}$) = 10.591, and degree of freedom (df) = 34 with the standard of signification 0,05. Based on the data shown in Table 3, the value of $\boldsymbol{tt}$ = 2.056. Based on the data, it can be seen that $\boldsymbol{tcount}$ > $\boldsymbol{tt}$ (10.591>2.056). It means that there was a significant effect between the pre-test and post-test using the ELSA Speak application for students' speaking skills before and after treatment. Based on the output table of the t- test, the value of sig = 0.000, which means the significance or the probability value was smaller than $\boldsymbol{\alpha}$ 0,05. This indicates that the null hypothesis ($\boldsymbol{H0}$) was rejected, and the alternative hypothesis ($\boldsymbol{Ha}$) was accepted. Elsa Speak application can improve students' pronunciation. This increase also means an increase in the three components of pronunciation that are assessed, namely fluency, accuracy, and intonation. The most improvement component of speaking in this research is accuracy. One of the technologies that can be used in learning pronunciation is pronunciation software. Pronunciation software is a way in which a language or specific word or sound is spoken through software as a medium that combines all commands for information processing and serves as an interactive medium (Sarmita & Aminullah, 2019).

Pronunciation is one of the aspects that others will judge. In speaking English, there are several aspects that must be considered. Pronunciation is one of the first impressions that other people will catch when starting a conversation in English. This section discussed the results of the data analysis obtained by the researchers. To get the results of this study, the researchers used three steps as follows:

The first step in carrying out this research is to do a pre-test. The pre-test was conducted using words with similar pronunciation. The pre-test results show 77, 2 as the mean score, meaning

that the students' pronunciation ability is classified as fair. The pre-test results showed that none of the students got a very good score. One of the problems of students who are not fluent in English is the lack of confidence and interest in learning English.

In this second step, the researchers applied the treatment twice to the students using the ELSA Speak application. For the first treatment, the researchers explained the ELSA Speak application and how to use it to the students. In the second treatment, the researchers asked students to follow the dialogue contained in the ELSA Speak application. The researchers used sentences from many features in ELSA Speak to help the students speak. Each of these treatments aims to educate students and analyze whether the ELSA Application can be helpful in learning how to speak English and improve their pronunciation skills.

After the treatment, the researchers then conducted a posttest to measure the students' speaking skills. The researcher repeats the same process as in the pre-test. The mean score on the student's post-test is classified as good. At this step, the students demonstrate their ability to speak clearly and well.

It can be concluded that the ELSA Speak application increases students' speaking skills as measured by the tests. Some students showed a significant improvement after being given the treatment twice. It was proven that the ELSA Speak application is very easy to understand, and the students enjoy learning to speak in English. The ELSA Speak application can attract the students' interest in learning to speak English because it has many features that make it easier for students to understand.

## CONCLUSION

Based on the findings and discussion, it can be concluded that the ELSA Speak application has proven effective in enhancing students' English pronunciation skills. The use of this mobile-assisted learning tool not only supports students in developing more accurate pronunciation but also encourages active engagement in spoken interactions with conversation partners.

The pre-test results revealed a mean score of 77.20, which falls within the "Fair" category of proficiency. Following the instructional intervention using the ELSA Speak application, students participated in a post-test to measure their progress. The results showed a mean post-test score of 83.49, indicating a notable improvement, which can be categorized as "Good." This increase demonstrates the positive impact of ELSA Speak on students' pronunciation performance.

Therefore, ELSA Speak can be considered a highly valuable and reliable and effective educational tool for supporting learners in mastering English pronunciation and improving English pronunciation, and its integration into language learning programs is highly recommended to optimize students' oral proficiency and prepare them for real-world communication demands. Its features, such as individualized feedback and repetitive practice,contribute significantly to learners' oral language development in an interactive and accessible way.

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