Journal of Literate
English Education Study Program
Volume 6 No 2 December 2025
ISSN (print) : 2745-9357
ISSN (online) : 2745-8563
Homepage : https://journal.uiad.ac.id/index.php/jle
DOI : 10.47435/jle.v6i2.4200

THE EFFECTIVENESS OF ELSA SPEAK APPLICATION IN TEACHING ENGLISH PRONUNCIATION

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Submission Track:
||Submited:8th October, 2025||Reviewed: 24th December, 2025||Published:31st December, 2025

Abstract

The findings of this study indicate that the ELSA Speak application is effective in improving the pronunciation ability of eighth-grade students at SMPN 7 Sinjai. This is evidenced by the results of the paired-sample t-test, which show a significance level of 0.000, lower than the significance threshold of 0.05; therefore, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted. Accordingly, it can be concluded that the use of the ELSA Speak application has a significant positive effect on students' pronunciation improvement. Furthermore, the N-Gain analysis reveals a score of 0.72 or 72%, which falls into the high effectiveness category. Descriptive statistical analysis also demonstrates an increase in students' mean scores from the pretest to the posttest, indicating a significant improvement in students' pronunciation performance after using the application. These findings are further supported by students' positive responses during the learning process, in which they showed high levels of engagement, enthusiasm, and confidence in pronouncing English words. The ELSA Speak application also facilitates autonomous learning by providing immediate feedback, making pronunciation practice more effective, focused, and sustainable.
Keywords: effectiveness; Elsa speak application; pronunciation

Abstrak

Temuan penelitian ini menunjukkan bahwa aplikasi ELSA Speak efektif dalam meningkatkan kemampuan pengucapan siswa kelas VIII SMPN 7 Sinjai. Hal ini dibuktikan melalui hasil uji-t sampel berpasangan yang menunjukkan tingkat signifikansi sebesar 0.000, yang lebih kecil dari batas signifikansi 0.05, sehingga hipotesis nol (H_0) ditolak dan hipotesis alternatif (H_1) diterima. Dengan demikian, dapat disimpulkan bahwa penggunaan aplikasi ELSA Speak memberikan pengaruh positif yang signifikan terhadap peningkatan kemampuan pengucapan siswa. Selain itu, hasil analisis N-Gain menunjukkan nilai sebesar 0.72 atau 72%, yang termasuk dalam kategori efektivitas tinggi. Analisis statistik deskriptif juga memperlihatkan adanya peningkatan nilai rata-rata siswa dari pretest ke posttest, yang mengindikasikan adanya peningkatan yang signifikan dalam performa pengucapan siswa setelah menggunakan aplikasi tersebut. Temuan ini semakin diperkuat oleh respon positif siswa selama proses pembelajaran, di mana siswa menunjukkan tingkat keterlibatan yang tinggi, antusiasme, serta kepercayaan diri dalam melafalkan kata-kata bahasa Inggris. Aplikasi ELSA Speak juga membantu siswa belajar secara mandiri dengan umpan balik langsung, sehingga proses latihan pengucapan menjadi lebih efektif, terarah, dan berkelanjutan.
Kata Kunci: *efektifitas, aplikasi ELSA Speak; pengucapan*

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1. Introduction

The ability to communicate effectively in English has become an essential skill in the era of globalization, where English serves as the primary medium of international communication across various domains (Lestari, 2024). In this modern age, marked by rapid advancements in science and technology, English proficiency is increasingly viewed as a key component for academic success and professional competitiveness. The integration of multimedia tools in education combining audio, visual, and animation elements has transformed traditional language learning into more dynamic and interactive experiences, allowing learners to engage meaningfully with the target language (Kusmaryani & Tanjung, 2023). This vision is aligned with the Law of the Republic of Indonesia Number 20 of 2003 on the National Education System, which underscores the importance of quality education to develop learners' potential, shape their character, and uphold the nation's dignity (Republik Indonesia, 2003). It also resonates with QS. Al-Mujadilah [58]:11, which highlights the elevated status of those who seek and possess knowledge (Kemenag, 2022), reinforcing that education, including language learning, is both an intellectual and spiritual pursuit.

In learning English, students are required to master four key skills, namely: listening, speaking, reading, and writing, alongside essential linguistic components such as grammar, vocabulary, and pronunciation (Karina et al., 2023). Among these, pronunciation is a critical element of communication, as even minor errors in pronunciation can alter meaning and lead to misunderstandings. Moreover, poor pronunciation may reduce learners' confidence and limit their ability to express ideas fluently (Arjulayana & Martínez, 2022). At the junior high school level, where learners are at the foundational stage of language development, pronunciation instruction becomes particularly vital. However, challenges persist due to limited exposure to authentic language use, insufficient speaking practice, and teaching methods that tend to be teacher-centered rather than communicative. Furthermore, a lack of constructive feedback and a learning environment that discourages risk-taking in speaking can lead to anxiety and reluctance among students (Rofi'i, 2023).

Pronunciation is not merely the articulation of sounds; it represents a broader dimension of communication involving intelligibility, accuracy, and expressiveness. According to Harmer (2021) pronunciation difficulties often arise because learners cannot distinguish or reproduce sounds absent in their native language. In linguistic theory, pronunciation consists of both segmental features such as vowels and consonants and supra segmental features, including stress, intonation, and rhythm, which together shape the clarity and naturalness of speech (Sihombing, 2018). These features influence how meaning and emotion are conveyed in spoken communication. Learners' mastery of pronunciation can be evaluated through fluency, accuracy, proper stress placement, and intonation control (Sari, 2016). When learners acquire these skills effectively, they tend to demonstrate greater confidence and fluency in using the target language (Baran-Lucaraz, 2017). Conversely, persistent pronunciation errors can lead to miscommunication, frustration, and loss of motivation, forming a cycle that hinders language development (Mandokhail et al., 2018).

The effectiveness of any instructional method is closely related to how well it facilitates learners in achieving intended outcomes. Teaching effectiveness, as explained by Rohmawati (2015) and Tribowo (2015), refers to the degree of success in achieving learning objectives through interactive processes between teachers and students. It can be assessed through the quality of lesson implementation, students' active engagement, and the extent of learning outcomes achieved (Sumarno et al., 2023). An effective learning process thus requires teachers to adopt methods that are relevant, engaging, and responsive to learners' needs (Munna & Kalam, 2021). In pronunciation teaching, effectiveness can be observed when students demonstrate increased motivation, participation, and measurable improvement in their pronunciation accuracy and fluency (Martin & Bolliger, 2018; Dewi & Primayana, 2019). Therefore, incorporating media and technological tools that provide authentic and interactive practice opportunities can significantly enhance the effectiveness of pronunciation learning.

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In the context of SMPN 7 Sinjai, preliminary observation revealed that eighth-grade students struggled to pronounce specific English sounds accurately, often feeling shy or reluctant to speak in class. Interviews with both students and teachers confirmed that the lack of individualized feedback made it difficult for learners to recognize and correct their pronunciation errors. These conditions emphasize the need for innovative approaches that create a more supportive and interactive learning environment, enabling students to practice speaking with confidence and receive instant feedback on their performance.

One promising innovation in this area is the integration of ELSA Speak, a mobile application designed to enhance English pronunciation through Artificial Intelligence (AI) and Automatic Speech Recognition (ASR) technology. Developed by Vu Van in 2015, ELSA Speak provides learners with structured pronunciation exercises, real-time error detection, and personalized feedback on their performance (Kareba et al., 2022; Saragih et al., 2023). The application is capable of detecting more than 95% of pronunciation errors and visually indicates incorrect sounds, allowing learners to make targeted improvements. It also includes features such as the ELSA Pronunciation Score (EPS), Word Bank, and Progress Report to help users monitor their development over time (Widyasari & Maghfiroh, 2023). Moreover, its user-friendly interface and flexible accessibility make it ideal for self-paced learning. Through such features, ELSA Speak functions as a virtual tutor that empowers students to practice pronunciation independently, anytime and anywhere, while fostering autonomy and motivation in learning (Rosilah & Ulfa, 2024).

The use of ELSA Speak aligns with the principles of effective teaching, as it provides immediate feedback, promotes active participation, and accommodates diverse learning styles. These aspects contribute to achieving learning goals more efficiently compared to conventional approaches. Additionally, the interactive nature of the application allows students to reduce their speaking anxiety and develop a sense of accomplishment as they observe their progress. Consequently, integrating this technology in the English classroom can bridge the gap between traditional instruction and modern, learner-centered pedagogy.

Given these considerations, this study is conducted to examine the effectiveness of using the ELSA Speak application in teaching pronunciation to eighth-grade students at SMPN 7 Sinjai. The research seeks to determine whether the use of ELSA Speak significantly improves students' pronunciation skills and enhances their confidence in speaking English. The findings are expected to provide empirical evidence regarding the pedagogical potential of AI-based pronunciation training and offer valuable insights for teachers and curriculum designers in implementing technology-assisted language learning. Ultimately, this study aims to contribute both theoretically to the field of computer-assisted language learning (CALL) and practically, by promoting more engaging, interactive, and effective approaches to pronunciation instruction that empower students to become confident and autonomous English speakers.

2. Method

This research employed an experimental quantitative design, specifically a pre-experimental design with a one-group pretest–posttest approach (Sugiyono, 2013; Hastjarjo, 2019). This design was chosen to determine the effectiveness of using the ELSA Speak application in teaching pronunciation to eighth-grade students of SMPN 7 Sinjai. The independent variable was the use of ELSA Speak, while the dependent variable was the students' pronunciation skill. The design consisted of three stages: a pretest (O_1), a treatment using the ELSA Speak application (X), and a posttest (O_2).

2.1 Time and Place of the Research

The research was conducted at SMPN 7 Sinjai, located on Husni Tamrin Street, Biringere, North Sinjai District, Sinjai Regency. The research was carried out from November 2024 to June 2025, encompassing the phases of data collection, analysis, and interpretation.

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2.2 Population and Sample

The population of this research consisted of 141 eighth-grade students distributed across five classes (VIII.1–VIII.5). Using purposive sampling, 29 students from class VIII.3 were selected as the sample. This non-random sampling technique was used because the selected class met the research requirements and represented the population's characteristics (Lenaini, 2021).

2.3 Research Procedure

The research procedure included several stages: 1) Preparation, which involved determining the research design, validating instruments, and coordinating with the school; 2) Pretest administration, where students were tested to assess their initial pronunciation ability; 3) Treatment, during which students learned pronunciation using the ELSA Speak application under teacher supervision; 4) Posttest administration, to measure improvement after the treatment; and 5) Data collection and analysis, to determine the effectiveness of the intervention.

2.4 Data Collection Techniques and Instruments

Data were collected through observation, questionnaires, tests, and documentation (Sugiyono, 2013). First, observation was used to monitor student activities and the teaching process using the ELSA Speak app. Second, questionnaires were distributed to gather students' perceptions of ELSA Speaks usability, effectiveness, and engagement level. Each contained 15 statements on a 4-point Likert-scale. Third, tests (pretest and posttest) were oral assessments consisting of 10 pronunciation items, designed to evaluate improvement in students' pronunciation accuracy. Last, documentation provided supporting evidence such as attendance records, photos, and copies of instruments and student work.

The research instruments included: 1) Observation Sheets – containing 10 Likert-scale items to evaluate students' engagement and teachers' use of the app; 2) Questionnaire Sheets – 15 items to assess students' responses; 3) Test Sheets – 10 pronunciation questions divided into pretest and posttest forms; 4) Documentation Sheets – to record attendance, photos, and assessment results (Siyoto & Sodik, 2015; Tarjo, 2021).

2.5 Instrument Validation and Reliability

The instruments underwent expert validation using the Aiken's V formula (Utami et al., 2024) by two validators from the University of Ahmad Dahlan Sinjai. Most items were rated as very valid ($V > 0.80$), while a few were moderately valid ($V = 0.67$). Empirical validation using SPSS 21 confirmed all questionnaire and test items as valid, with Pearson correlation values exceeding the r-table value (0.3673).

Reliability tests were performed using Cronbach's Alpha. The results indicated that the questionnaire ($\alpha = 0.889$), pretest ($\alpha = 0.730$), and posttest ($\alpha = 0.720$) all met the reliability criteria ($\alpha > 0.60$), demonstrating that the instruments were consistent and dependable (Ghozali in Darma, 2021).

2.6 Data Analysis Techniques

Data analysis followed several steps: 1) Normality Test: using the Shapiro Wilk test to verify that the data were normally distributed (sig. > 0.05); 2) Homogeneity Test: using Levene's test to confirm that the pretest and posttest variances were homogeneous (sig. > 0.05) (Sugiyono, 2013) ; 3) Hypothesis Testing: using the Paired Sample t-test to determine whether the use of ELSA Speak significantly affected students' pronunciation ability. The hypothesis was accepted if $p < 0.05$ or t-count > t-table; and 4) N-Gain Score Analysis: to measure the level of effectiveness of the treatment using the following interpretation (Sukarelawan et al., 2024).

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Table 1 ***Classification of Gain Normality Values***

N-Gain Range	Effectiveness Level
$0.70 \leq N \leq 1.00$	High
$0.30 \leq N < 0.70$	Medium
$0.00 \leq N < 0.30$	Low

3. Results and Discussion

The research investigated the effectiveness of using the ELSA Speak application in improving students' pronunciation skills at SMPN 7 Sinjai. The findings were derived from tests of normality and homogeneity, observation results, student questionnaires, pre-test and post-test scores, and statistical analyses.

3.1 Normality and Homogeneity Test

Normality testing using the Shapiro–Wilk method produced significance values of 0.399 (pretest) and 0.144 (posttest)**,** both greater than 0.05, confirming that the data were normally distributed. The Levene test for homogeneity yielded a significance value of 0.943 (> 0.05)**,** indicating that the data were homogeneous. These results validated the use of the Paired Sample t-test for hypothesis testing.

3.2 Implementation of Learning

Observation of the teaching process using the ELSA Speak application showed that the teacher effectively integrated technology into pronunciation instruction. The total score for learning implementation reached 95 (Very Good category**)**, indicating that the teacher managed lessons efficiently, clearly explained objectives, provided effective feedback, and ensured active student participation. Minor areas for improvement included giving more discussion prompts and encouraging reflection.

3.3 Students Activities

Observation of student activities also yielded a final score of 90 (Very Good category)**.** Students actively engaged with the ELSA Speak features, practiced pronunciation repeatedly, and utilized feedback effectively. They showed enthusiasm and improvement in accuracy during practice. However, some students required more guidance in understanding materials, managing time, and developing confidence. Overall, ELSA Speak created a more interactive, independent, and motivating learning environment. Based on the both observations, it can be summarizes in the following table 2.

Table 2 ***Summary of Observation Scores***

Aspect Observed	Score	Category
Teacher Implementation	95	Very Good
Student Activities	90	Very Good

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3.4 Students Responses

Questionnaire results from 29 students indicated overwhelmingly positive perceptions of using ELSA Speak. Most students agreed that the application made learning pronunciation easier, more enjoyable, and more confidence-building. They appreciated the real-time feedback**,** color-coded error indicators, and progress tracking features. This aligns with findings by Widyasari & Maghfiroh (2023) that ELSA Speak enhances motivation and engagement through interactive feedback mechanisms. The questionnaire result can be seen in the table 3.

Table 3 ***Summary of Students Response Questionnaire***

Response Category	Number of Students	Percentage
Strongly Agree / Agree	27	93%
Disagree / Strongly Disagree	2	7%

3.5 Learning Outcomes

The result of students' pre-test and post-test can be seen in the table 4 below:

Table 4 Summary of Students Response Questionnaire

Test Type	Mean Score	Interpretation
Pre-test	70.5	Initial pronunciation level
Post-test	93.2	Improved pronunciation performance

A comparison of pre-test and post-test results revealed a significant improvement in students' pronunciation performance. Most students' post-test scores exceeded 90, with several achieving perfect scores of 100. The Paired Sample t-test showed a significance value of 0.000 (< 0.05), indicating a statistically significant difference between pre-test and post-test results. Thus, the null hypothesis (H_0) was rejected, and the alternative hypothesis (H_1) that ELSA Speak effectively improves pronunciation was accepted.

The N-Gain score analysis further supported these findings, with an average N-Gain of 0.72 (72%), categorized as high effectiveness. This demonstrates that the application substantially enhanced students' pronunciation accuracy and confidence in speaking English. The improvement in students' pronunciation skills reflects the effectiveness of technology-based learning. The ELSA Speak application, powered by AI and automatic speech recognition (ASR), provided real-time correction and individualized feedback that encouraged continuous improvement (Rosilah & Ulfa, 2024). Students' positive attitudes also strengthened the learning process, confirming that motivation and self-confidence are essential factors in pronunciation acquisition (Harmer, 2021)

The results correspond with prior studies showing that digital tools enhance engagement and learning outcomes in pronunciation instruction (Saragih et al., 2023; Widyasari & Maghfiroh, 2023). The combination of auditory input, visual feedback, and self-paced practice in ELSA Speak aligns with effective pronunciation teaching principles emphasizing repetition, feedback, and learner autonomy. These findings also extend previous research by demonstrating significant quantitative improvements in pronunciation performance, as measured through pre-test and post-test data.

Overall, the study concludes that ELSA Speak is highly effective in improving pronunciation skills, enhancing student motivation, and fostering independent learning. It provides empirical support for the integration of AI-based pronunciation training into classroom instruction and offers practical implications for English teachers seeking to modernize their pedagogy through technology.

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4. Conclusion

The results of this research show that the use of the ELSA Speak application effectively improves students' pronunciation skills at SMPN 7 Sinjai. Statistical analysis confirmed a significant difference between pre-test and post-test scores, with an average N-Gain score of 0.72 categorized as high effectiveness. This indicates that the application greatly enhanced students' pronunciation accuracy, fluency, and confidence in speaking English. Observation results also showed that both teacher performance and student activity during learning were in the "Very Good" category, demonstrating that the integration of ELSA Speak created a more interactive and engaging learning environment. Students actively participated in the learning process, showed enthusiasm in practicing pronunciation, and responded positively to the features of the application, such as real-time feedback and progress tracking, which made learning more enjoyable and independent.

Based on these findings, it is recommended that teachers incorporate ELSA Speak or similar technology-based tools in pronunciation teaching to provide students with instant feedback and continuous practice opportunities. Schools are encouraged to support this innovation by providing adequate technological facilities and internet access to optimize the implementation of digital learning. Students are advised to use the application regularly outside of class to strengthen their pronunciation skills and speaking confidence. For future research, it is suggested to involve a larger sample and a longer implementation period to obtain more comprehensive data on the long-term effectiveness of ELSA Speak in improving speaking proficiency. Overall, the study concludes that ELSA Speak not only helps students achieve better pronunciation performance but also promotes motivation, independence, and self-confidence in learning English.

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