The Effect of ELSA Speak Application on Elementary Students' English Pronunciation Proficiency

Elsa Febria [1], Ridho Kurniawan [2], Diana Oktavia [3]

[1]Muhammadiyah University of Muara Bungo, Bungo, Indonesia (elsafebria2603@gmail.com)
[2]Muhammadiyah University of Muara Bungo, Bungo, Indonesi (ridhokn89@gmail.com)
[3]Muhammadiyah University of Muara Bungo, Bungo, Indonesia (dianaoktavia@gmail.com)

Abstract – Mastering English pronunciation is a significant challenge for elementary school students due to the differences between the English and Indonesian sound systems, as well as the limited availability of interactive learning media. This study aims to determine the effect of the ELSA Speak application on students' pronunciation proficiency in English learning at SDN 199/II Koto Jayo. The study used a quantitative pre-experimental approach with a one-group pre-test post-test design on 20 fifth-grade students. Data were collected through oral tests on the topic of "Clothes" and analyzed using the normality test, hypothesis test, and effect size test. The results showed that the ELSA Speak application had a significant effect on students' pronunciation proficiency. The average score increased from 42.80 (in the very poor category) to 79.50 (in the good category), representing a 36.7-point increase. The Wilcoxon Signed Rank test showed a significance value of <0.001 (p<0.05), which means that H_0 was rejected and H_a was accepted. All students experienced an increase without any decrease. The effect size test yielded a value of r = 0.879 (considered a large effect according to Cohen), indicating that ELSA Speak has a substantial practical impact on improving the pronunciation proficiency of fifth-grade students.

Keywords – ELSA Speak Application, Pronunciation Proficiency, English Learning, Elementary Students

I.   Introduction

English plays a crucial role as an international language. According to Crystal (2003), through Kachru's "Three Circles of English" model, countries fall into three categories: first, second, or foreign languages. In Indonesia, English is classified as a foreign language, but its urgency extends to politics, business, technology, and education, which emphasizes the importance of learning it in the era of globalization (Wangrum & Adhi, 2021).

In Indonesia's national curriculum, English is taught from universities to elementary schools. However, at the elementary school level, English will become a compulsory subject starting in the 2027/2028 academic year according to Permendikbudristek No. 12 Pasal 33 Tahun 2024. Although English is currently an elective, this ability is very important in elementary schools and is a challenge for teachers in the era of globalization. The age period of 7-12 years is the optimal period for learning a foreign language because children have higher language acquisition ability and curiosity than adults (Cameron, 2001). Therefore, English language learning in elementary schools needs special attention.

In English language learning, there are four main abilities: speaking, listening, reading, and writing. All of these abilities are interrelated, but speaking is the most important aspect that students must master. The mastery of speaking is a priority for many second-language and foreign language learners (Richards, 2008:19).

Indonesia has a diversity of regional languages that affect accent and pronunciation, making it important to

establish correct English pronunciation (Akhmad & Munawir, 2022). Pronunciation errors can change meaning and lead to misunderstandings, so it needs to be taught early for children to have a foundation of clear and effective speech, without having to imitate native speakers' accents (Palupi et al., 2022; Dilora & Feruza, 2025).

However, pronunciation is the most difficult aspect to acquire (Fraser, 2000). Especially for elementary school students, due to the difference in the sound system between English and Indonesian. For example, the sounds /θ/ in think and /ð/ in this do not exist in Indonesian, so they are often replaced with /t/ and /d. This difference makes it difficult for students to pronounce words correctly like native speakers (Gustina et al., 2016).

Khoirunnisa (2020) states that the number of Indonesian consonants which is less than English is a major challenge in learning pronunciation. These sound differences make it difficult for young learners in Indonesia to pronounce vocabulary correctly, resulting in frequent pronunciation errors. Therefore, pronunciation errors can be considered as a major problem in learning English as they are fatal and potentially disrupt communication if not taught early.

Teachers also face limitations in teaching pronunciation. Gilbert (2008) asserts that classroom learning usually only provides general corrections without detailed explanations due to time constraints. Therefore, teaching pronunciation requires careful preparation, ranging from strategies, methods, learning models, to the selection of appropriate media.

Based on pre-observation at SDN 199/II Koto Jayo, students face considerable difficulties in pronunciation, especially in grade fifth. This difficulty was caused by differences in sound systems and discrepancies between English spelling and pronunciation. This situation reflects the gap between students' abilities and the Learning Outcomes of Merdeka Curriculum phase C, which requires students to understand letter-sound relationships and demonstrate an understanding of the spelling of common words in English.

The main factors influencing students' difficulties include: (1) limited interactive media for pronunciation practice, with teachers only using books and speakers; (2) lack of technology integration as the school does not yet have a projector and technology-based media; and (3) limited learning time, as English lessons are only one hour a week covering many aspects and subtopics.

To overcome these challenges, technology integration is an important solution. Mobile learning offers flexibility through engaging visualizations that can be accessed anytime and anywhere (Devara et al., 2016). In this case, the ELSA Speak application comes as an ideal learning media with the support of artificial intelligence and voice recognition technology with an accuracy of more than 90%, which is able to provide two-way feedback and automatic correction (Kholis, 2021; Widyasari & Maghfiroh, 2023).

Unlike other apps that focus on vocabulary and grammar, ELSA Speak is specifically designed to enhance pronunciation using advanced speech recognition technology with feedback features. The app offers over 1,200 lessons in 60+ topics, along with an interactive dictionary for pronunciation guidance (Hidayati & Rosyid, 2020). Based on the pre-observation, SDN 199/II Koto Jayo has adequate facilities for M-Learning implementation, thus ELSA Speak is chosen as the pronunciation learning media. This is in line with Fouz-González (2020), who emphasized that mobile devices support student engagement with the flexibility of practicing anytime at their own pace.

Various studies have proven ELSA Speak's effectiveness in English pronunciation. Anggraini (2022) found a significant increase in students' ability and motivation thanks to the flexibility and efficiency of this application, while Fitria and Fakhrurriana (2023) confirmed its ability to overcome pronunciation problems through interactive activities, personalized feedback, and learning according to the user's needs and rhythm. Supported by AI-based speech recognition technology, difficulty level adjustment, native language feedback, and flexibility of use (Nushi, 2021; Indriyani et al., 2024), ELSA Speak is thus a relevant learning medium, especially in the face of media and time constraints at SDN 199/II Koto Jayo.

Previous studies have been limited to high school students, university students, and course participants, while specific research on elementary school students in

Indonesia has not been found. Therefore, this study has an urgency to test the effect of ELSA Speak in elementary school, with the hope that it can be a reference for English teachers in choosing the right interactive media to increase students' pronunciation proficiency. Based on this background, this study is entitled "The Use of ELSA Speak Application to Increase Students' Pronunciation Proficiency in Learning English at SDN 199/II Koto Jayo.

II.   Methodology Section

This study applied a quantitative approach with experimental method of One-Group Pretest-Posttest design, which aimed to determine the effect of using ELSA Speak application on students' pronunciation ability in learning English. This design involves one experimental group without a control group, with stages: pretest, treatment (ELSA Speak), and posttest.

This study was conducted at SDN 199/II Koto Jayo located in Koto Jayo Village, Tanah Tumbuh Subdistrict, Bungo Regency, Jambi Province in the odd semester of the 2025/2026 academic year. This location was chosen based on pre-observation which showed that there were still many students experiencing difficulties in English vocabulary pronunciation as well as a mismatch between their abilities and the learning outcomes set.

The population of this study was fifth grade students of SDN 199/II Koto Jayo consisting of 20 students, with 12 male students and 8 female students. The sampling technique used was total sampling or census, where all members of the population were used as samples. This technique was chosen because of the relatively small population (<100 people), so it is in accordance with the recommendations of Sugiyono (2021) and Etikan (2016) to use all members of the population as samples when the population is limited.

The instrument used was an oral pronunciation test consisting of pretest and posttest. The pretest and posttest instruments were the same, derived from the book "My Next Words Grade 5" with the topic "Clothes". The assessment of both tests used an adaptation rubric from Djiwandono (2008) which included five aspects of pronunciation: intelligibility, fluency, accuracy, and intonation, with a maximum score of 16 points which were then categorized by Gumelar & Lestari (2024) into five levels from very good (85-100), good (75-84), sufficient (60-74), less (50-59) to very less (0-49).

Treatment was conducted for 6 meetings with a duration of 20-50 minutes including the introduction of the ELSA Speak application, installation and account creation, practice using application features, and individual exercises guided by the researcher. At the end of each meeting, evaluation and reflection were conducted to see the development of students' pronunciation skills while using the ELSA Speak application.

For data analysis, several techniques were used with the help of IBM SPSS Statistics 27. First, to calculate student scores and averages. Second, to test the normality of the data in two ways, if the data tested is normally distributed, it will be done with the Shapiro-Wilk test because the sample is less than 50 samples and then proceed with the paired sample t-test.

Then if the data tested is not normally distributed using non-parametric tests in accordance with Sugiyono's statement (2017), where the most suitable non-parametric test is the Wilcoxon Signed Rank Test. The significance level is set at a p-value of 0.05. if the p-value in the hypothesis test results is below the value of 0.05 then H0 is rejected which shows a significant difference in students' pronunciation skills using ELSA Speak. Then the last test is the effect size test. Conducted in two ways as well, for normally distributed data using the Hedges's g formula, while for abnormal data using the $r = z/\sqrt{N}$ formula based on the z value of the Wilcoxon test, with the effect size category according to Cohen (1988): small (0.1), medium (0.3), and large (>0.5).

III.   Results
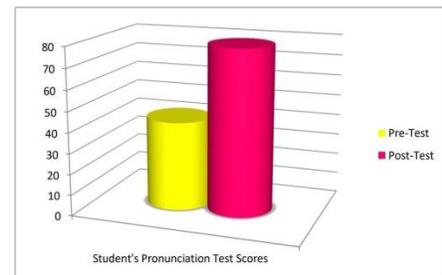
Graph 1 Pretest and Posttest Scores

3.1 *Pretest*

The pre-test data were obtained from 20 fifth-grade students of SDN 199/II Koto Jayo. The mean pre-test score was 42.80 with a standard deviation of 9.611; the highest score was 56 and the lowest was 25. The score distribution was as follows: 1 student scored 56, 8 students scored 50, 5 students scored 44, 1 student scored 38, 1 student scored 36, 1 student scored 31, and 3 students scored 25. Based on the categories, 9 students were classified as *Poor* and 11 students as *Very Poor*.

3.2 Posttest

The post-test data, collected after the treatment using the ELSA Speak application, involved the same 20 students. The mean post-test score was 79.50 with a standard deviation of 8.476; the highest score was 94 and the lowest was 63. The score distribution was as follows: 3 students scored 94, 3 students scored 88, 1 student scored 81, 12 students scored 75, and 1 student scored 63. In terms of categories, 6 students were classified as *Very Good*, 13 students as *Good*, and 1 student as *Sufficient*.

3.3 Normality Test

The normality test was conducted using Shapiro-Wilk (SPSS v.27). The significance value (p) for the pre-test was 0.003, and for the post-test was < 0.001. Since both p-values were below 0.05, the pre-test and post-test data were declared not normally distributed according to Shapiro-Wilk criteria.

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Students' Pronunciation Pre-Test Scores	.250	20	.002	.837	20	.003
Students' Pronunciation Post-Test Scores	.352	20	<.001	.793	20	<.001

a. Lilliefors Significance Correction

Table 1 Normality Test

3.4 Hyphothesis Test

Given the non-normal distribution, hypothesis testing was carried out using the Wilcoxon Signed Rank Test (non-parametric) in SPSS v.27. The Wilcoxon results showed Negative ranks = 0, Positive ranks = 20 (mean rank = 10.50; sum of ranks = 210), and Ties = 0. The significance value (Asymp. Sig. 2-tailed) reported in the statistical test table was < 0.001. Based on this result, the null hypothesis (H_0) was rejected, and the alternative hypothesis (H_a) was accepted according to the testing criteria. Moreover, the effect size calculated from the Wilcoxon test statistic was r = 0.879, which falls into the large effect category according to Cohen (1988).

Ranks

		N	Mean Rank	Sum of Ranks
Students' Pronunciation Post-Test Scores - Students' Pronunciation Pre-Test Scores	Negative Ranks	0[a]	.00	.00
	Positive Ranks	20[b]	10.50	210.00
	Ties	0[c]		
	Total	20		

a. Students' Pronunciation Post-Test Scores < Students' Pronunciation Pre-Test Scores

b. Students' Pronunciation Post-Test Scores > Students' Pronunciation Pre-Test Scores

c. Students' Pronunciation Post-Test Scores = Students' Pronunciation Pre-Test Scores

Table 2 Wilcoxon Signed Rank

Test Statistics[a]

	Students' Pronunciation Post-Test Scores - Students' Pronunciation Pre-Test Scores
Z	-3.935[b]
Asymp. Sig. (2-tailed)	<.001

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

Table 3 Test Statistics Wilcoxon Signed Rank

Based on the test statistics in table 4.6, can be seen that the significant value (Asymp. Sig. 2-Tailed) is <0.001, where the value is less than the alpha value (0.05), in accordance with the formulation of the hypothesis stated in chapter 2 where H0 is rejected and Ha is accepted, which means that ELSA Speak application has a significant effect on students' pronunciation proficiency in grade 5 of SDN 199/II Koto Jayo.

3.5 Effect Size

$$r = \frac{z}{\sqrt{N}} = \frac{3935}{\sqrt{20}} = 0{,}879$$

Table 4 Effect Size

Based on the test statistics in Table 1.4, can be seen that the effect size value is 0.879, which is bigger than 0.5. According to Cohen's (1988) criteria, this value is included in the large effect category. This shows that the use of the ELSA Speak application has a large practical impact on the pronunciation proficiency of grade 5th grade students of SDN 199/II Koto Jayo.

IV. Discussion

This study was designed to examine the effect of the ELSA Speak application on increasing pronunciation proficiency among fifth-grade students at SDN 199/II Koto Jayo. The research findings demonstrate that technology-based pronunciation learning can help overcome the difficulties faced by Indonesian students in learning English.

The pre-test results showed that students' pronunciation ability was still very poor, with an average score of 42.80. This finding reflects a common problem faced by Indonesian elementary school students when learning English pronunciation. According to Gustina et al. (2016), this difficulty occurs due to sound differences between English and Indonesian. In this study, 11 students were in the "Very Poor" category, 9 students in the "Poor" category, and none achieved satisfactory results. This indicates that students lack exposure to correct English pronunciation models, as also found by Astina et al. (2020). Prashant (2018) also explains that students often focus more on grammar and vocabulary rather than pronunciation.

After using the ELSA Speak application for four sessions, students showed remarkable improvement. The average score increased to 79.50, representing an increase of 36.7 points. This result changed the overall category from "Very Poor" to "Good." The score distribution also proved the application's effectiveness, with 6 students achieving the "Very Good" category, 13 students in the "Good" category, and only 1 student in the "Sufficient" category. These findings support the mobile application-based learning theory proposed by Devara et al. (2016), which emphasizes the advantages of using mobile applications as flexible and engaging learning tools. The feedback feature of ELSA Speak that uses artificial intelligence and voice recognition helped students recognize and correct their pronunciation errors, as explained by Nushi (2021) and Indriyani et al. (2024).

The learning approach in this study followed a systematic sequence. It began with vowel sounds, then consonant sounds, and finally suprasegmental features such as stress, rhythm, and intonation. This approach aligns with the recommendations of Kelly (2000) and Sharma (2021), who suggest that pronunciation learning should include both segmental and suprasegmental aspects. This sequence allows students to build a foundation of sound understanding before learning more complex elements. The integration of segmental and suprasegmental learning is very important because Sharma (2021) notes that suprasegmental features play important roles in distinguishing meaning and communication effectiveness.

The improvement pattern of each student demonstrates the adaptive capability of this application. Students with low initial scores achieved the greatest improvement, with improvement ranging from 19 to 63 points for all participants. This pattern shows that ELSA Speak's personal feedback system can identify and address basic pronunciation weaknesses while adapting to each student's learning needs. Araj and Aidana (2024) explain that children have high brain flexibility, making it easier to develop pronunciation ability.

The advantages of children's neuroplasticity are clearly visible from these research results. Araj and Aidana (2024) emphasize that high brain plasticity in elementary school-aged children creates optimal conditions for learning pronunciation. ELSA Speak utilizes this advantage by providing consistent and patient feedback, allowing students to practice in a focused manner to address their specific weaknesses. This level of individual attention is difficult to achieve in traditional classroom learning.

Statistical analysis confirms that this improvement is truly significant and meaningful. The Wilcoxon Signed-Rank test results ($p < 0.001$) provide strong evidence that this intervention is effective, while the large effect size ($r = 0.879$) according to Cohen's (1988) criteria indicates meaningful changes in student learning. This large effect size aligns with the findings of Pinontoan et al. (2022) with secondary students, showing that ELSA Speak provides consistent benefits across different education levels in Indonesia.

The successful integration of mobile learning technology addresses several challenges in Indonesian elementary English education. Fraser (2000) states that pronunciation is the most difficult aspect of foreign language learning, yet traditional classroom learning often does not provide adequate individual practice opportunities due to time constraints and large class sizes. ELSA Speak overcomes these limitations by providing unlimited practice access with consistent quality feedback, so learning can be expanded beyond classroom boundaries.

Additionally, the gamification elements and interactive features of this application align with children's characteristics identified by Pinter (2017). Pinter notes that children are highly motivated by activities involving fantasy, imagination, and immediate feedback. The combination of game-like exercises with serious learning objectives creates an engaging environment that maintains student motivation throughout the learning process.

This research demonstrates successful integration of traditional drilling techniques with modern AI technology. Astina et al. (2020) recommend using various approaches in pronunciation learning for children, and this study validates the effectiveness of hybrid learning models. The systematic learning protocol that combines explicit explanation of phonological principles with extensive practice through ELSA Speak can address both cognitive understanding and procedural skill development.

The benefits of this research extend beyond immediate pronunciation improvement. By providing objective data-based assessment capabilities, ELSA Speak enables teachers to monitor student progress more effectively compared to traditional subjective evaluation methods. This technological enhancement supports more targeted learning decisions and helps identify students who need additional support.

The research success shows that well-designed educational applications can help overcome the limitations of qualified English teacher availability and authentic language input, which are ongoing challenges in the Indonesian educational context. Through AI-powered pronunciation modeling and assessment, applications like ELSA Speak provide consistent exposure to native speaker pronunciation standards while maintaining learning quality across diverse educational settings.

However, the effectiveness of such technological interventions heavily depends on appropriate pedagogical integration and teacher support. The systematic learning protocol used in this study shows that technology functions most effectively when integrated within structured learning frameworks rather than as standalone solutions. These findings indicate that strategic integration of AI-powered pronunciation applications represents a promising approach for improving elementary English learning in Indonesia. The substantial improvement observed in all participants shows that such interventions can contribute meaningfully to preparing students for global communication demands while addressing resource limitations in English as a foreign language education.

Although the research results show significant effectiveness, several limitations need to be acknowledged. This study used a pre-experimental design with a relatively small sample size of 20 students from only one school, which may limit the generalization of findings to other school contexts with different student characteristics. The treatment duration limited to four sessions over three days may not be sufficient to measure whether the achieved pronunciation improvement can be sustained long-term. Additionally, the absence of a control group in this research design makes it difficult to separate the effects of ELSA Speak from other factors that might contribute to improvement, such as attention effects or student motivation from using new technology.

The results of this research have important practical implications for technology implementation in English learning at Indonesian elementary schools. Schools need to consider investment in technological infrastructure and teacher training to effectively integrate pronunciation learning applications. The combination of ELSA Speak with traditional drilling methods and audio-visual aids shows that combined approaches can optimize learning outcomes while maintaining important teacher-student interactions. For future research, it is recommended to use randomized controlled trials with larger sample sizes and longer treatment periods to confirm long-term effectiveness. Comparative research between ELSA Speak and other pronunciation learning applications could also provide insights into specific features that most contribute to learning success. Furthermore, research on the cost-effectiveness of implementing such technology compared to conventional methods would be very beneficial for educational policy decision-making. Overall, this research confirms that ELSA Speak can be an effective tool for improving elementary school students' pronunciation ability, but its success heavily depends on appropriate pedagogical implementation and systematic support from schools.

V. Conclusion

This study successfully demonstrated the effectiveness of the ELSA Speak application in improving pronunciation proficiency among fifth-grade students at SDN 199/II Koto Jayo. The pre-experimental design involving 20 participants revealed dramatic improvements in pronunciation skills following the four-session intervention, with mean scores increasing from 42.80 (Very Poor) to 79.50 (Good), representing a 36.7-point improvement across all assessment dimensions: intelligibility, fluency, accuracy, and intonation.

Statistical analysis using the Wilcoxon Signed-Rank test confirmed the significance of these improvements ($p < 0.001$), while the large effect size ($r = 0.879$) according to Cohen's criteria demonstrates that the changes were not only statistically significant but also practically meaningful. All 20 participants showed positive improvement with no negative ranks, providing strong evidence for the application's consistent effectiveness across diverse learner profiles.

The success of ELSA Speak can be attributed to its AI-powered voice recognition technology providing

immediate feedback, systematic treatment approach progressing from segmental to suprasegmental features, and gamification elements that sustain student motivation. These findings have significant implications for English language education in Indonesian elementary schools, demonstrating that mobile learning applications can effectively address pronunciation challenges traditionally difficult to overcome through conventional classroom instruction, particularly in contexts with large class sizes and limited individual practice opportunities.

Despite study limitations including the pre-experimental design with small sample size from a single school and short treatment duration, the research provides compelling evidence that well-designed educational technology can significantly enhance pronunciation learning outcomes. The study validates AI-powered applications as effective supplementary tools for English pronunciation instruction when integrated within structured pedagogical frameworks.

This research confirms that ELSA Speak represents a valuable technological tool for improving pronunciation skills among elementary students, with the potential to address longstanding challenges in English pronunciation instruction, particularly in EFL contexts where exposure to authentic pronunciation models is limited. While technological tools cannot replace qualified teachers, they serve as powerful supplements that extend learning opportunities beyond classroom boundaries and provide individualized practice necessary for pronunciation mastery.

VI.   References

Akhmad, N. W., & Munawir, A. (2022). *Improving the Students' Pronunciation Ability by Using Elsa Speak App.* IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature, 10(1), 846–857. https://doi.org/10.24256/ideas.v10i1.2868

Anggraini. (2022). *Improving Students' Pronunciation Skill Using ELSA Speak Application.* Journal of English Languuage and Pedagogy, 5(1), 135–141. http://ejurnal.budiutomomalang.ac.id/index.php/journey

Araj, M., & Aidana, M. (2024). *Factors Influencing Learning Pronunciation of the Primary School Children.* The Kazakh-American Free University Academic Journal.

Astina, Nurhamdah, & Amzah. (2020). *The Analysis Of Teaching English Pronunciation.* Inspiring : English Education Journal, *3*(1), 1–16.

Cameron, L. (2001). *Teaching Languages to Young Learners.* Cambridge University Press

Crystal, D. (2003). *English as a Global Language (Second Edition).* Cambridge University Press. English as a global language : Crystal, David, 1941- : Free Download, Borrow, and Streaming : Internet Archive

Devara, M. R., Efendi, R., & Azwandi. (2016). *Perancangan Aplikasi M-Learning Bahasa Inggris Berbasis Client Server.* Jurnal Rekursif, 4(3), 334–343.

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). *Comparison of Convenience Sampling and Purposive Sampling.* American Journal of Theoretical and Applied Statistics, 5(1), 1. https://doi.org/10.11648/j.ajtas.20160501.11

Fraser, H. (2000). *Coordinating Improvements in Pronunciation Teaching for Adult Learners of English as a Second Language. In Canberra: DETYA (ANTA Innovative Project) Coordinating.* https://helenfraser.com.au/wp-content/uploads/ANTA-REPORT-FINAL.pdf

Gilbert, J. B. (2008). *Teaching Pronunciation Using the Prosody Pyramid.* Cambridge University Press.

Gumelar, W. S., & Lestari, T. S. (2024). *The Phonics Method to Increase English Pronunciation for Young Learners.* Jurnal Simki Pedagogia, 7(2), 350–362. https://doi.org/10.29407/jsp.v7i2.687

Gustina, S., Sutarsyah, C., & Sudirman. (2016). *An Analysis of The Elementary School Students' Problem in Learning English Pronunciation.* 274–282.

Hidayati, P. S., & Rosyid, A. (2020). *Pembelajaran English Pronunciation Melalui Mobile Assisted Language Learning (MALL): Potensi Dan Hambatan.* Pedagonal : Jurnal Ilmiah Pendidikan, 04(2), 61–66. http://journal.unpak.ac.id/index.php/pedagonal

Indriyani, N., Faizah, I., Khasanah, E. N., & Rahmatika, A. Y. (2024). *The Use of Elsa Speak as the Pronunciation Learning of Students English Education Study Program at the UIN Prof . K . H . Saiffuddin Zuhri Purwokerto.* CELTI: Conference on English Language Teaching), 4, 207–214. https://doi.org/:https://doi.org/10.24090/celti.2024.1024

Kelly, G. (2000). *How to Teach Pronunciation.* Pearson

Education Limited.

Khoirunnisa, A. (2022). *An Analysis of Pronunciation Errors Produced by Indonesian Learners of English: A Case Study of English Department Students of Trunojoyo University.* Indonesian EFL Journal: Journal of ELT, Linguistics, and Literature, 8(1), 57–70. http://ejournal.kopertais4.or.id/mataraman/index.php/efi

Kholis, A. (2021). *Elsa Speak App: Automatic Speech Recognition (ASR) for Supplementing English Pronunciation Skills.* Pedagogy : Journal of English Language Teaching, 9(1), 01. https://doi.org/10.32332/joelt.v9i1.2723

Nushi, M. (2021). *A Critical Review of ELSA: A Pronunciation App.* Call-Ej, 22(3), 287–302.

Palupi, D., Prasetyaningsih, E. T., & Bilandari, S. (2022). *Improving Young Learners' Pronunciation Skill Through Songs.* ETERNAL (English Teaching Journal), 13(1), 21–31. https://doi.org/10.26877/eternal.v13i1.10512

Pinter, A. (2017). Teaching Young Language Learners (Second Edition). Oxford University Press. Teaching Young Language Learners, Second Edition - Annamaria Pinter - Google Books

Richards, J. C. (2008). *Teaching Listening and Speaking: From Theory to Practice.* Cambridge University Press. Teaching Listening and speaking by Richards 2008.pdf - Google Drive

Sharma, L. R. (2021). *Significance of Teaching the Pronunciation of Segmental and Suprasegmental Features of English.* Interdisciplinary Research in Education, 6(2), 63–78. https://doi.org/10.3126/ire.v6i2.43539

Sholekhah, M. F., & Fakhrurriana, R. (2023). *The Use of ELSA Speak as a Mobile-Assisted Language Learning (MALL) towards EFL Students Pronunciation.* JELITA: Journal of Education, Language Innovation, and Applied Linguistics, 2(2), 93–100. https://doi.org/10.37058/jelita.v2i2.7596

Widyasari, P., & Maghfiroh, A. (2023). *The Advantages of Artificial Intelligence ELSA Speak Application for Speaking English Learners in Improving Pronunciation Skills.* The 9th ELTT, 9(1), 286–292. https://proceeding.unpkediri.ac.id/index.php/eltt/article/view/4248