

# The Effectiveness of Elsa Speaking Application for Enhancing Pronunciation in English Language Learners

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**Abstract.** The integration of technology has become a crucial component in language learning. It enables educators to conduct more engaging and efficient language instruction. Consequently, this study examines the effectiveness of the ELSA (English Language Speech Assistant) Speaking application in enhancing English pronunciation among junior high school students. The data were collected by using tests including pretest and posttest, and then they were analyzed quantitatively, this study using group pretest posttest design. Based on the result of tests, it was found that the value of significance is  $-4.159$  less than the significance level that has been set ( $\alpha = 0.05$ ). in level of significant  $005$ . It indicates that  $H_0$  was refused and  $H_a$  was accepted which means Elsa application is effective in improving students' pronunciation. It is evident that ELSA Speak made it easier and more through for the students to pronounce a variety of words. Additionally, the app's capabilities, such as its real-time feedback feature, helped the students pronounce words correctly. Indeed, ELSA Speak can effectively and efficiently help students with their pronunciation. In fact, it can encourage students to practice pronouncing words correctly. Therefore, to enrich the literature on teaching English, the researcher recommend that English teachers utilize various applications to enhance students' proficiency in English.

Keywords: Artificial Intelligence, ELSA Application, Pronunciation

## 1. INTRODUCTION

In today's globalized world, proficiency in English has become increasingly essential, particularly in countries where English is regarded as a foreign language, such as Indonesia. Despite the early introduction of English education, many Indonesian students still struggle with adequate pronunciation skills. This deficiency not only hampers their ability to communicate effectively but also affects their confidence when speaking English. Given the increasing demand for English language proficiency in today's globalized world, many students are striving to improve their skills. Crystal (2023) explains that English is the language used by almost all countries in the world. Moreover, English has become the lingua franca across various fields from business to technology, and mastering this language is crucial for Indonesia's youth to compete on an international level.

Indonesia is a nation where English is recognized primarily as a foreign language. This classification reflects the country's linguistic landscape, which is dominated by the Indonesian official language. While English is widely taught and used in various contexts, it does not hold

the status of a native language among the majority of the population. It serves a key role as an additional language especially in education and professional fields and is increasingly seen as the common language of Southeast Asia. However, many students still struggle with pronunciation, which can hinder their ability to communicate confidently.

English is widely taught as a foreign language in Indonesia. However, students often experience considerable difficulties with pronunciation due to the influence of their native language, insufficient interaction with native speakers, and ineffective teaching practices (Gilakjani & Ahmadi, 2011). One of the factors examined in this research several studies show that not a few students in Indonesia who have good pronunciation skills one of them are study by Putri et al. (2018) was found that one of the six classes in SMPN 19 Pontianak showed significant pronunciation difficulties. In addition, some students in MAN 2 Yogyakarta appear cases that students in the class cannot participate because of shyness and they are afraid to pronounce the words in a different way due to lack of English pronunciation skills (Bajri, 2018).

This is precisely where AI-driven pronunciation tools emerge as catalysts for transformation, revolutionizing how learners engage with language. By providing real-time feedback and personalized practice opportunities, these innovative technologies empower individuals to refine their pronunciation skills more effectively than traditional methods. Thus, learners can enhance their communicative competence and intelligibility, ultimately leading to greater confidence and success in their language acquisition journey.

Artificial Intelligence (AI) has increasingly demonstrated considerable potential in advancing the process of pronunciation learning by offering rapid, accurate, and individualized feedback, thus enabling learners to recognize and address their mistakes in real time. This capability is especially significant given that many students experience heightened anxiety when speaking English, with uncertainties surrounding pronunciation frequently acting as a substantial barrier to effective communication. The integration of AI-driven tools provides a level of flexibility and accessibility rarely achievable through traditional face-to-face instruction, as students are afforded the autonomy to practice at their own pace and convenience, free from geographical constraints (Alimbaeva, 2023). Within this evolving technological landscape, applications such as ELSA Speaking have emerged as innovative resources that facilitate independent improvement of pronunciation skills. Powered by Artificial Intelligence (AI), the ELSA Speaking application delivers immediate, targeted feedback on users' production of English words and phrases, enabling learners to systematically refine their articulation (Dewi et al., 2020). Given this context, the present research aims to examine the effectiveness of the ELSA Speaking application in enhancing Indonesian students' pronunciation competencies, positioning this technology as a practical, engaging, and accessible solution for language learners.

There are some previous studies which are related to improving students' English pronunciation by using AI technology. The first previous study was done by Mohammadkarimi (2024) indicates that AI tools like Listen and Murf AI are effective in boosting learner accuracy, confidence, and engagement. Speech recognition is a branch of artificial intelligence that plays a vital role by offering real-time feedback and guidance on pronunciation. This ultimately contributes to the enhancement of fluency and communication competencies (Boyi & Guangliang, 2024). Moreover, a recent study by Yesilyurt (2023) investigated the role of AI in language education and concluded that such technologies not only improve pronunciation but also increase students' confidence and willingness to participate in spoken interactions. Furthermore, Baker & Murphy (2011) examined various technological interventions in language learning and found that tools providing immediate corrective feedback significantly improved students' pronunciation skills. These findings suggest that AI-based tools AI-powered

tools and speech recognition technology effectively enhance students' pronunciation, fluency, and confidence by providing real-time feedback, increasing engagement, and encouraging active participation in spoken interactions.

Correlate with this research based on Hafizhah et al. (2023) concluded that the ELSA Speaking application enhances English pronunciation and phonetics by utilizing phonetic transcriptions for easier comprehension, incorporating engaging quizzes to enhance the learning experience, and offering numerous opportunities for users to practice their pronunciation skills effectively. the use of the ELSA Speak application has provided progress and benefits for students in improving their English learning skills by using the ELSA Speak application with data. In the first cycle, the students' Average score is 70 points, the second cycle is 75 points and the last cycle is 80 points. (Anggraini, 2022). Their findings suggest that AI applications can such as ELSA Speaking application lead to enhanced language acquisition outcomes by facilitating a more interactive and responsive learning environment.

## 2. METHOD

This study uses a type of quantitative research with experimental methods. Quantitative research is methods for testing certain theories by examining the relationship between variables. Variables are usually measured by research instruments so that data consisting of numbers can be analyzed according to statistical calculation procedures (Kusumastuti et al., 2020). Moreover Sugiyono (2016) explains that quantitative methods can be identified as research methods based on the positivist philosophy, used to research on a specific population or sample, data collecting using research instruments, quantitative or statistical data processing, with the purpose of testing the hypothesis that has been set. The study of data analysis uses quantitative and statistical methods to test the proposed theory (Nizar, 2016). The quantitative method aims to achieve accurate and consistent measurements that allow for statistical analysis and concentrates on objectivity, particularly in the collection of quantifiable information on variables and inferring from population samples (Queirós et al., 2017).

This study used a pre-experimental design type one group pretest-posttest (single group pretest-posttest). One group pretest-posttest design is a research activity that provides an initial test (pretest) before being given treatment, after being given treatment then give a final test (posttest) in just one study group (Hidayanti et al., 2019). In this design, the test was carried out twice, i.e. before being given treatment it is called pre-test and after treatment it is called post-test. The research pattern of the one group pretest-posttest design method according to Sugiyono (2017) is as follows.

**Table 1.** One group pretest-posttest design

<i>Category</i>	<i>Pretest</i>	<i>Treatment</i>	<i>Posttest</i>
<i>Experiment</i>	$O_1$	$X$	$O_2$

Information:

$O_1$  = experimental class pretest value

$O_2$  = posttest value of the experimental class

X = given treatment within a certain period of time

The population was the students of Mts Progresif Bumi Shalawat in the academic year 2023/2024 and the sample was the second semester 8th grade. This study was undertaken while teaching pronunciation. Researcher utilize specific tools, known as instruments, to

systematically collect the data, thus enhancing the efficiency and organization of their research activities (Nizar, 2016). In this study, the data collection instruments will use tests and documentation.

The test is a comprehensive assessment of an individual or an entire evaluation effort (Tersiana, 2018). The test is used to measure a person's abilities and achievements or accomplishments. The test instrument is used to see students' abilities in learning. Tests are given before starting learning (pre-test) and after learning (post-test). It consisted of 35 items which 30 items of it is to test the students' word pronunciation. Meanwhile, the rest 5 items were used to test the students' sentence pronunciation. In terms of the word pronunciation test, the score given for each item was 1 and for the sentence pronunciation test, the score given for each item was 2. Chart 1 illustrated the scoring system clearly.

**Table 2.** Scoring pronunciation adapted from (Samad & Ismail, 2020)

No.	Name of Test	Number of Test Item	Score per Item	Max Score
1.	Pronunciation Test of Words	/dʒ/=5 /z/=5 /tʃ/ = 5 /θ/=5 /ʃ/=5 /ð/=5	1 1 1 1 1 1	5 5 5 5 5 5
2.	Pronunciation Test of Sentence	5	2	10
3.	Total	35		40

The treatment will be conducted after the pre-test. The students will learn how to pronounce the six consonant sounds correctly by using the ELSA Speak application. They will be asked to download this app through the App Store or Play Store on their own smartphones or gadgets. The treatment will be given for three meetings. Afterward, the post-test will be administered. Principally, it will not be different from the pre-test in terms of its form, items, difficulty, and scoring system. Besides, the researchers will utilize a recorder during the test to facilitate them in analyzing the students' pronunciation.

Before pre-test and post-test given, researchers will test the validity of the instrument text for pre-test and post-test namely Validity Test of Research Instruments. After the tests are administered, then the researchers calculate them by using rubric of pronunciation scores attached in Appendix 2. This Rubric of Pronunciation Scoring consist of 5 a percentage score and description.

To analyze the data the researcher used a one-group pretest and post-test design. The tests are analyzed in multiple levels, including normality and hypothesis test according to the problem. Therefore, in this study, the researchers provided two assumptions to be measured, namely:

- a) Ha: Elsa application is effective in improving students' English pronunciation.
- b) Ho: Elsa application isn't effective in improving students' English pronunciation.

### 3. RESULT

In examining the baseline proficiency of students' pronunciation skills prior to the intervention, it becomes evident that their fundamental abilities in this aspect were considerably limited. Analysis of the Pretest results, which were systematically calculated and summarized, indicates a notable disparity in performance among participants, with scores ranging from a

minimum of 13 to a maximum of 30. The mean score of 21, derived through rigorous statistical analysis using SPSS, further emphasizes the generally low level of pronunciation competency across the cohort.

Such performance demonstrates that, as a collective, the students' pronunciation capabilities predominantly fall within the category commonly classified as poor. This conclusion is substantiated not only by the quantitative spread of scores but also by the clustering of most students' results around the lower end of the scale. These findings provide a critical foundation for evaluating the subsequent impact of targeted interventions, as they underscore the pressing need for methodological measures such as the integration of digital pronunciation tools to address pronounced deficiencies in learners' spoken English proficiency. The pretest data thus serve as an essential diagnostic benchmark, highlighting both the challenges faced by learners and the imperative for structured pedagogical responses in the domain of pronunciation enhancement.

After the students were given a pretest, researchers then provided treatment for 3 meetings. Furthermore, to determine whether pronunciation skills can be improved or not through ELSA Speak researcher tested students again after treatment.

The study was undertaken in the context of the 8th grade at MTs Progresif Bumi Shalawat and was structured across three focused meetings, each of which spanned a duration of 60 minutes. The 8th (E) grade consisted of 33 students from six different classes (8A–8F). The primary objective of these sessions was to integrate the ELSA Speaking application into classroom instruction to foster the development of English pronunciation skills in a setting reflective of authentic learning environments.

The first meeting, held on 12 May 2025, provided a foundation for application-based pronunciation training. The session commenced with introductory greetings and routine administrative activities such as attendance checks, which established a familiar classroom rapport. Subsequently, the researcher articulated the overarching learning objectives, emphasizing the pivotal role of accurate pronunciation for effective English communication. Students received explicit instruction regarding the phonetic symbols representing both vowels and consonants. Additionally, the core features and navigation of the ELSA Speaking application were systematically introduced. The instructor demonstrated the login process, guided students through the pronunciation modules, and facilitated their selection of learning materials congruent with thematic curriculum requirements. Each student participated in individual practice, with a specific focus on elementary English sounds and the rectification of frequently mispronounced words. The application's provision of instantaneous, detailed feedback enabled learners to identify articulate weaknesses and focus on improvement, while the instructor's targeted support ensured comprehensive engagement with the digital platform.

The second meeting, conducted on 13 May 2025, sought to deepen participants' mastery of pronunciation nuances by advancing from isolated sounds to sentence-level pronunciation. Instructional activities were designed to enhance students' understanding of intonation, stress, and rhythm. Through a sequence of listening exercises, repetition of model sentences, and active voice recordings for comparison, students were afforded ongoing, formative feedback from the ELSA application. Group dynamics were encouraged through paired dialogue practice, wherein peer assessment was facilitated via the app's evaluation tools. The instructor's role became facilitative, promoting collaborative discourse on prevalent pronunciation challenges and encouraging peer-to-peer support, thereby transforming the classroom climate into a cooperative and reflective learning community.

The third meeting, held on 19 May 2025, was oriented toward the application of acquired pronunciation proficiency in meaningful communicative contexts. The session began with conventional greetings and attendance, followed by a renewal of the instructional

objectives. Students engaged in role-play simulations and short oral presentations, consistently leveraging the ELSA application to rehearse their delivery and refine articulation. The instructional focus pivoted towards fluency and intelligibility, with students being motivated to communicate with both clarity and confidence. Personalized, constructive feedback was provided through a combination of digital assessment and direct instructor input. The session culminated in a reflective group discussion, fostering metacognitive awareness as students articulated the evolution of their pronunciation skills and discussed the transformative capacity of real-time feedback provided by the ELSA application. This approach was deliberately adopted to reinforce cumulative learning and instill sustained confidence in the students' spoken English capabilities.

The analysis of these classroom interventions indicates that structured, scaffolded use of the ELSA Speaking application within a supportive instructional framework can substantively enhance students' English pronunciation skills. The meticulous orchestration of technological tools with pedagogical strategies resulted in heightened student engagement, improved pronunciation accuracy, and the cultivation of collaborative learner autonomy within the EFL classroom context.

Following the implementation of the ELSA Speaking Application as an intervention, a quantitative analysis was conducted on the posttest results of Class 8E grade at MTs Progresif Bumi Shalawat, encompassing 33 students. The posttest scores revealed a range between 16 and 36, with a calculated mean score of 26 demonstrating a notable increase compared to the pretest mean of 21 as seen in Table 4 and 5 on Appendix 3. This upward shift in the average score suggests a positive impact of the intervention on students' pronunciation proficiency.

Reflective verbal feedback from students indicated heightened motivation and engagement with the learning material, attributing their improvement to the interactive and personalized features of the ELSA application. These findings are corroborated by the total deviation score of 49.92 and an average deviation of 3.83, further supporting the assertion that, post-intervention, students' performance not only increased in terms of mean scores but also reflected a modest gain in consistency and overall proficiency. Collectively, the posttest results substantiate the qualitative enhancement of pronunciation skills within the studied, thus affirming the efficacy of the implemented ELSA Speaking Application.

After the scores are taken from posttest, then several tests are conducted, the results of the test, which are presented in Table 3.

**Table 3.** Tests of Normality from SPSS

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretest ELSA Speak	.138	33	.111	.955	33	.183
Posttest ELSA Speak	.092	33	.200*	.981	33	.824

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

a. Lilliefors Significance Correction

Two primary techniques are commonly utilized in SPSS to assess data normality: the Kolmogorov-Smirnov test, which is generally recommended for sample sizes greater than 100, and the Shapiro-Wilk test, which is considered more appropriate for sample sizes below 100. In this study, the Shapiro-Wilk test was employed by the researcher.

Testing Criteria:

3.1 If the significance value (sig. [2-tailed]) is less than  $\alpha$  (0.05 or 0.01), the data are not normally distributed.

3.2 If the significance value (sig. [2-tailed]) is greater than  $\alpha$  (0.05 or 0.01), the data

are normally distributed.

To determine whether the data are normally distributed, we refer to the null hypothesis criteria described above. Based on the Shapiro-Wilk test table, the significance value pretest Elsa Speak was 0.183 and posttest was 0.824. both are greater than  $\alpha$  (0.05), it means indicating that the pretest and posttest data from ELSA are normally distributed. Therefore, the requirements for using the Paired Sample T-test are fulfilled.

**Table 4.** Paired Samples Statistics Deskription from SPSS

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest ELSA Speak ( $O_1$ )	21.00	33	4.257	.741
	Posttest ELSA Speak ( $O_2$ )	25.79	33	5.073	.883

The researcher interpreted that the mean score of the pretest ( $O_1$ ) was 21.00, and after the treatment (X) was administered, the mean score of the posttest ( $O_2$ ) increased to 25.27. Descriptively, there has been an improvement in the data obtained. However, this difference cannot be confirmed yet as statistically significant based on inferential analysis. Therefore, further analysis using a T-test, also known as hypothesis testing, is required to determine the statistical significance of the observed difference.

### Paired Sample T-Test

After the normality test was performed and the data is normally distributed, the researchers conducted the next test, namely the Paired Sample T-test as follows.

**Table 5.** The result of T-test from SPSS

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pretest ELSA Speak - Posttest ELSA Speak	-4.788	6.613	1.151	-7.133	-2.443	-4.159	32	.000

Based on the results of the calculation of the t-test presented in Table 5, a significance value (sig) of 0.000 was obtained for testing the effect of variable X (Treatment ELSA Speaking) on variable ( $O_2$ ) posttest. The value of significance is less than the significance level that has been set ( $\alpha = 0.05$ ). Thus, it can be concluded that the null hypothesis ( $H_0$ ), which states that there is no significant effect between variable X and variable Y, is rejected. On the contrary, the alternative hypothesis ( $H_a$ ), which states that there is a significant influence between variable X and variable  $O_2$ , is accepted.

The findings of this study demonstrate that the integration of the ELSA Speaking application into English language instruction can significantly improve students' pronunciation skills, this case correlate with statement of Hafizhah et al. (2023) concluded that The ELSA Speaking application enhances English pronunciation and phonetics by utilizing phonetic transcriptions for easier comprehension. The real-time feedback and personalized guidance offered by the application addressed individual learner needs more effectively than traditional classroom methods correlate with statement of Brown (1996) defines that teaching pronunciation fundamentally involves guiding students in producing the sounds of a language. Students reported increased motivation and engagement during the treatment sessions, attributing their progress to the interactive and supportive features of the ELSA Speaking

application.

The improvement in posttest scores suggests that technology-assisted pronunciation practice can bridge gaps commonly encountered in EFL contexts, such as limited exposure to native speaker models and insufficient individualized feedback. These results are consistent with previous research, which highlights the benefits of AI-driven pronunciation tools in enhancing learners' accuracy, confidence, and communicative competence. The structured activities in each meeting, aligned with the lesson module, ensured that students systematically developed their pronunciation skills from basic sounds to fluent speech.

#### 4. CONCLUSION

This study was conducted to investigate the effectiveness of the ELSA Speaking application in enhancing students' English pronunciation skills. Guided by a quantitative approach using a one-group pretest-posttest design, the study aimed to assess whether AI-powered language tools could significantly improve learners' articulation and communicative competence. The research question focused on whether the ELSA application could lead to measurable gains in students' pronunciation accuracy after a structured treatment.

The key findings from the study revealed a statistically significant improvement in students' pronunciation scores following the treatment. The mean score increased from 21.00 in the pretest to 25.79 in the posttest. A paired-sample t-test confirmed the less than the significance level that has been set ( $\alpha = 0.05$ ), thereby supporting the hypothesis that the ELSA Speaking application had a positive effect on learners' pronunciation development. These results validate the potential of AI-driven tools such as ELSA Speaking in addressing common EFL learning challenges, this correlate to research of Baker and Murphy (2011) examined various technological interventions in language learning and found that tools providing immediate corrective feedback significantly improved students' pronunciation skills, particularly in pronunciation instruction where real-time, individualized feedback is often lacking in traditional classroom environments.

The findings suggest several practical implications for English language education. Teachers may consider incorporating AI applications like ELSA into their curriculum to provide students with autonomous, flexible, and engaging learning experiences. From a theoretical standpoint, the study reinforces the importance of feedback in language learning, aligning with feedback theory and communicative competence models. However, this study was limited by its scope restricted to one group without a control group, and conducted over a relatively short period of time. Future research should include longitudinal studies, comparison groups, and varied demographics to further validate and generalize the findings. Nonetheless, this study contributes to a growing body of evidence supporting the integration of intelligent technology in language pedagogy and encourages a broader adoption of AI-enhanced pronunciation tools in EFL contexts.

#### REFERENCES

- Alan. (2014). *Gimson's pronunciation of English*. Routledge. <https://www.routledge.com/cw/cruttenden>
- Alimbaeva, A. J. (2023). The efficiency of AI-powered mobile applications in e-learning. *Science and Innovation*, 2(3), 90–93. <https://cyberleninka.ru/article/n/the-efficiency-of-ai-powered-mobile-applications-in-e-learning/viewer>
- Anggraini. (2022). Improving students' pronunciation skill using ELSA Speak application. *JOURNEY: Journal of English Language and Pedagogy*, 5(1), 135–141.

- Arikunto, S. (1998). *Prosedur penelitian: Suatu pendekatan praktik* (Ed. revisi IV). Rineka Cipta.
- Bajri, A. (2018). Improving students' pronunciation using repetition drill technique for the students of grade XI Natural Science MAN 1 Yogyakarta. *Journal of English Language Teaching*. <https://journal.student.uny.ac.id/elt/article/viewFile/13320/12868>
- Baker, A., & Murphy, J. (2011). *Pronunciation: A key to effective communication*. Cambridge University Press.
- Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice*, 5(1), 7–74. <https://doi.org/10.1080/0969595980050102>
- Boyi, H. E., & Guangliang, L. I. U. (2024). Analysis of English speech learning quality based on speech recognition technology. In *2024 International Conference on Optimization Computing and Wireless Communication (ICOCWC)* (pp. 1–4). IEEE.
- Brown, A. (1996). *Pronunciation and phonetics: A practical guide for English language teachers*. Routledge.
- Crystal, D. (2023). *A date with language*. Bodleian Library.
- Deliana, & Hilman. (2018). Error analysis of students' pronunciation in pronouncing English vowels and consonants. *Journal Smart*, 4(1).
- Dewi, N. P., & Widiastuti, T. (2020). The effectiveness of ELSA app on students' pronunciation skill. *Journal of Language and Literature*, 15(2), 45–56.
- Gilakjani, A. P., & Ahmadi, M. R. (2011). The importance of listening comprehension in English language teaching. *International Journal of Humanities and Social Science*, 1(13), 169–176.
- Hafizhah, M., Wahyuni, L. D., & Lubis, Y. (2023). Learn English pronunciation and phonetic transcription with ELSA Speaking application: A student perception. *Jurnal Riset Rumpun Ilmu Bahasa*, 2(2), 65–73. <https://doi.org/10.55606/jurribah.v2i2.1448>
- Harmer, J. (2007). *The practice of English language teaching*. Longman.
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81–112.
- Hidayati, Y. (2019). The effect of storytelling towards students' speaking skill at X grade students of MA Nurul Haramain Boarding School. *Journal of Languages and Language Teaching*, 7(2), 132–143. <https://doi.org/10.33394/jollt.v7i2.1961>
- Karakas, A. (2023). Breaking down barriers with artificial intelligence (AI): Cross-cultural communication in foreign language education. In *Transforming the language teaching experience in the age of AI* (pp. 215–233). IGI Global. <https://doi.org/10.4018/978-1-6684-9893-4.ch012>
- Kelly, G. (2000). *How to teach pronunciation*. Pearson Longman.
- Kluger, A. N., & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, 119(2), 254–284. <https://doi.org/10.1037/0033-2909.119.2.254>
- Kusumastuti, A., Khoiron, A. M., & Achmadi, T. A. (2020). *Metode penelitian kuantitatif*. Deepublish.
- Levy, M. (2006). *Effective use of CALL technologies: Finding the right balance*. Routledge.
- Lipnevich, A. A., & Smith, J. K. (Eds.). (2018). *The Cambridge handbook of instructional feedback*. Cambridge University Press.
- Longman. (2021). *Longman dictionary of contemporary English* (6th ed.). Pearson Education.
- Mohammadkarimi, E. (2024). Exploring the use of artificial intelligence in promoting English language pronunciation skills. *LLT Journal: A Journal on Language and Language Teaching*, 27(1), 98–115.

- Nizar, A. (2016). *Metode penelitian pendidikan: Pendekatan kuantitatif, kualitatif, PTK, dan penelitian pengembangan* (pp. 30–76). Citapustaka Media.
- Putri, Y. A., Sada, C., & Riyanti, D. (2018). Improving students' pronunciation by using tongue twister technique. *Jurnal Pendidikan dan Pembelajaran Khatulistiwa*, 7(11), 1–10. <https://jurnal.untan.ac.id/index.php/jpdpb/article/viewFile/29732/75676579231>
- Queirós, A., Faria, D., & Almeida, F. (2017). Strengths and limitations of qualitative and quantitative research methods. *European Journal of Education Studies*. <https://doi.org/10.5281/zenodo.887089>
- Richards, J. C. (2018). *Communicative competence* [Video]. YouTube. <https://www.youtube.com/watch?v=RpGvWYPL7cU>
- Rodinadze, S., & Zarbazovia, K. (2012). The advantage of information technology in teaching English language. *Frontiers of Language and Teaching*, 3, 271–275.
- Samad, I. S., & Ismail. (2020). ELSA Speak application as a supporting media in enhancing students' pronunciation skill. [Conference paper/unpublished].
- Shrum, J. L., & Glisan, E. W. (2010). *Teacher's handbook: Contextualized language instruction* (p. 456). Heinle Cengage Learning.
- Singh, A., & Halim, H. (2023). Addressing challenges in language teaching in India: Exploring the role of corrective feedback in enhancing learning. *Advanced Education*, 22, 152–184. <https://doi.org/10.20535/2410-8286.278042>
- Sugiyono. (2007). *Quantitative, Qualitative and R&D research methods*. Bandung: Alfabeta.
- Sugiyono. (2013). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta, 2013.
- Sugiyono. (2016). *Cara mudah mempersiapkan skripsi dan disertasi* (4th ed.). Alfabeta.
- Sugiyono. (2017). *Metodologi penelitian kuantitatif kualitatif dan R&D*. Alfabeta.
- Sundayana, R. (2018). *Statistika penelitian pendidikan*. Alfabeta.
- Tersiana, A. (2018). *Metode penelitian* (p. 65). CV Budi Utama.
- Tri, H., Ita, H., & Ines, H. I. (2019). *Statistika dasar panduan bagi dosen dan mahasiswa*. Pena Persada.
- Wiliam, D. (2018). Feedback: At the heart of—but definitely not all of—formative assessment. In A. A. Lipnevich & J. K. Smith (Eds.), *The Cambridge handbook of instructional feedback* (pp. 376–408). Cambridge University Press.
- Yesilyurt, Y. E. (2023). AI-enabled assessment and feedback mechanisms for language learning: Transforming pedagogy and learner experience. In *Transforming the language teaching experience in the age of AI* (pp. 25–43). IGI Global. <https://doi.org/10.4018/978-1-6684-9893-4.ch002>

## APPENDICES 1 THE PICTURES



**Picture 1.** First Meeting



**Picture 2.** Second Meeting



**Picture 3.** Third Meeting

**APPENDICES 2**  
**THE RESULT OF PRE-TEST AND POST-TEST**  
**OF ELSA SPEAKING PRONUNCIATION**

**Table 6.** The Students' Pre-Test Score

NO.	Initial Names	Types Of Test		Total Scores
		Words Pronunciation	Sentences Pronunciation	
1	AZ	11	3	14
2	ACW	15	5	20
3	AWYP	14	5	19
4	ADB	17	4	21
5	ANA	25	5	30
6	ARA	15	4	19
7	AHP	13	4	17
8	AAF	17	4	21
9	DPA	19	3	22
10	FA	12	3	15
11	KFAS	19	3	22
12	MAS	17	4	21
13	MAKH	20	3	23
14	MAH	15	4	19
15	MB	16	3	19
16	MRF	16	4	20
17	MSA	16	3	19
18	MDT	17	3	20
19	MNI	20	4	24
20	MSIPP	16	3	19
21	MAM	16	3	19
22	MBAR	17	6	23
23	MDDR	22	6	28
24	MJH	23	4	27
25	MNVA	22	5	27
26	MRA	24	5	29
27	MRS	17	3	20
28	NPM	15	5	20
29	RZAS	14	3	17
30	RR	23	4	27
31	RF	11	2	13
32	TPP	12	3	15
33	YAF	19	5	24
<b>Total Score</b>		565	128	693

**Table 7.** The Students' Post-Test Score

No.	Initial Names	Types Of Test		Total Scores
		Words Pronunciation	Sentences Pronunciation	
1	AZ	20	8	28
2	ACW	19	6	25
3	AWYP	16	4	20
4	ADB	25	6	31
5	ANA	28	8	36
6	ARA	18	4	22
7	AHP	21	6	27
8	AAF	16	3	19
9	DPA	22	6	28
10	FA	27	6	33
11	KFAS	12	4	16
12	MAS	22	6	28
13	MAKH	18	4	22
14	MAH	21	6	27
15	MB	23	7	30
16	MRF	23	6	29
17	MSA	20	5	25
18	MDT	25	6	31
19	MNI	24	6	30
20	MSIPP	19	5	24
21	MAM	16	4	20
22	MBAR	25	6	31
23	MDDR	17	6	23
24	MJH	14	3	17
25	MNVA	22	6	28
26	MRA	28	7	35
27	MRS	22	5	27
28	NPM	17	4	21
29	RZAS	19	5	24
30	RR	16	3	19
31	RF	25	6	31
32	TPP	19	5	24
33	YAF	19	5	24
<b>Total Score</b>		678	177	855

**APPENDICES 3**  
**THE INSTRUMENT PRE-TEST AND POST-TEST OF ELSA SPEAKING**

**WORDS**

1. Badge, Outrageous, Large, Education, Ridge
2. Decision, Persuasion, Delusion, Fusion, Leisure
3. Chalk, Church, Future, Chant, Charcoal
4. Breathed, Aesthetic, Hypothesis, Synthesis, Earth
5. Gracious, Ambitious, Accomplish, Association, Appreciation
6. Other, Though, The, Although, Bother

**SENTENCE**

"The **thief**, feeling **anxious** and **doubtful**, sought **refuge** in a **hotel** and nervously muttered about the **terrible** ordeal, hoping to avoid a **showdown** with the police **officer** who seemed **determined** to **catch him out**."

**Figure 4.** The Pre-Test Instrument of ELSA Speaking

**WORDS**

1. Jobs, Judge, General, Budget, Objection
2. Revision, Erosion, Television, Usual, Casual
3. Teacher, Cheese, Child, Chair, Choose
4. Birthday, Toothache, Teeth, Thank, Think
5. Fashion, Nation, Shop, Wish, English.
6. Mother, Either, Therefore, Brother, Gather

**SENTENCES**

Although the **tourist** felt quite **sure** about the **route**, he became **frustrated** when the **poor** directions led him to a **deserted area**, and he had to **hurry** back to the **bus** before the **storm** broke **out**.

**Figure 5.** The Post-Test Instrument of ELSA Speaking