



The Effect of ELSA Application as an AI Tool on Iranian EFL Learner's Pronunciation Skills

Zahra Abolhasani 

Department of English Language, Science & Arts University, Yazd, Iran.

zabolhasani7070@gmail.com

Raziyeh Fallah  (Corresponding Author)

Department of English Language, Science & Arts University, Yazd, Iran.

Rfallah25@gmail.com

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Abstract

Among the many applications for enhancing pronunciation skills, the ELSA (English Language Speech Assistant) application is one that shows how to improve students' pronunciation effectively. Therefore, this study investigated the effect of the ELSA application on learners' pronunciation skills and their attitudes toward its use. A quasi-experimental design was employed with 50 EFL learners divided into experimental and control groups. First, a placement test was conducted to assign learners to appropriate levels. Then, the pretest was administered to both the experimental and control groups. The experimental group received the treatment and practiced pronunciation with the ELSA application, while the control group practiced pronunciation using traditional pronunciation exercises. At the end of the course, a post-test was administered to both groups. Both groups were evaluated through interactive tasks in the oral performance pretest and posttest. The results indicated a significant difference between two groups after using the application. Additionally, a validated questionnaire administered showed they had positive attitudes toward the application. The findings suggest that ELSA can improve EFL learners' pronunciation skills. Therefore, it can be beneficial for course designers and teachers to enhance learners' pronunciation in an engaging environment.

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Introduction

English as an international language enables people from all over the world to communicate. It plays a vital role in various fields, including politics, economics, culture, communication, and education (Kirkpatrick, 2007; Pennycook, 2007; Phillipson, 2013). With the rapid advancement of technology, the importance of English has grown significantly in recent years. Therefore, learning English has become essential for various purposes. When studying the language, learners should focus on developing all four language skills: speaking, listening, reading, and writing. Mastering these competencies is critical for effective communication (Munro & Derwing, 1995). Among these skills, speaking is particularly important for achieving proficiency and confidence in English communication (Rao, 2019).

In addition to learning grammar rules and pronunciation, learners must be fluent in spoken English because the sounds in English differ greatly. Learners of English, especially when speaking, sometimes face difficulties pronouncing words (Simatupang & Tambunsaribu, 2021). In education, technology plays a significant role. Therefore, students have easier access to English-language resources because of the Internet. For instance, schools and instructors use every available digital tool to enhance the teaching and learning process (Teräs et al., 2020). Gilakjani and Sabouri Pourhosein (2017) stated that technology complements methods of teaching English. Teachers' strategies for motivating students to engage in activities heavily rely on technology.

Additionally, Jalaluddin (2016) argues that technological advancements in language instruction provide teachers with tools that enhance lesson content and boost student engagement. Teachers must utilize the Internet's resources and speech recognition software to the fullest. Many learners fear mispronouncing words, but they can improve their pronunciation when speaking by using speech recognition software. In recent years, integrating mobile applications in English as a Foreign Language (EFL) learning has revolutionized traditional teaching approaches (Bahadorfar & Omidvar, 2014). Students can use educational apps like ELSA Speak, DUOLINGO, and MEMRISE to enhance their communication skills and pronunciation. Since students can access the learning process through online educational applications, learning should not be restricted to the classroom (Samad & Ismail, 2020). These tools can accurately assess speech and provide complementary feedback, allowing learners to repeat and improve their pronunciation. The ELSA application is one of these AI-powered tools that help learners improve their speaking and pronunciation skills. Furthermore, ELSA Speak's unique approach, which includes personalized feedback and interactive exercises, distinguishes it from other language-learning applications.

ELSA Application

The ELSA application is a technological tool that can enhance language learning currently. ELSA (English Language Speech Assistance) is a free Android application available for download on Google Play and App Store. This app helps students practice speaking words, phrases, and sentences with an American accent by providing various features. The microphone icon at the end allows students to practice speaking right away, as if they were listening to the

audio. In a separate study, Samad and Aminullah (2018) examined how students in their pronunciation class felt about the ELSA Application. The app captures users' speech and identifies which sounds are produced correctly and which need to be repeated. This app provides an opportunity for learners to practice their pronunciation at home.

Literature Review

Theoretical Framework

Several learning theories are integrated into the theoretical framework to examine how the English Language Speech Assistant (ELSA) application affects EFL learners' pronunciation abilities and enhances their knowledge. By providing instant feedback inside the learner's Zone of Proximal Development (ZPD), ELSA functions as a digital scaffold that facilitates pronunciation improvement through mediated learning, as explained by Vygotsky's sociocultural theory (1978). This is supported by Cognitive Burden Theory (Sweller, 2007), which contends that ELSA maximizes learning by lowering irrelevant cognitive burden and optimizing relevant cognitive load via organized, AI-powered activities. The efficacy of ELSA is further supported by behaviorist learning theory (Skinner, 1957) since its repeated drills and real-time corrective feedback reinforce accurate pronunciation. Holec's Autonomous Learning Theory (1981) also emphasizes how ELSA, an AI application, encourages self-directed learning by granting students the flexibility to customize their practice, set objectives, and assess their progress—all crucial elements of learner autonomy. Additionally, the Technology Acceptance Model (TAM) (Davis, 1989) emphasizes the significance of perceived utility and usability, explaining why students who find ELSA accessible and helpful are more likely to engage regularly and achieve better pronunciation outcomes. When taken as a whole, these ideas provide a convincing foundation for comprehending how learner-centered, interactive, and adaptive technology within ELSA may improve EFL learners' pronunciation.

Empirical Researches

The Role of Pronunciation in EFL Learning

Pronunciation is crucial for effective communication (Celce-Murcia et al., 2010). Due to L1 interference, learners struggle despite their advanced vocabulary and grammar skills also have trouble learning segmental (individual sounds) and suprasegmental (stress, intonation, rhythm) aspects. Therefore, poor pronunciation causes misunderstanding (Munro & Derwing, 1995). Research suggests that learners' comprehension may improve through explicit pronunciation training (Munro & Derwing, 1995). Additionally, new methods for resolving persistent pronunciation issues in EFL contexts have emerged with technology-assisted tools (Levis, 2018).

The Impact of AI and Technology on Modern Language Learning

The rise of Mobile-assisted language learning (MALL) and artificial intelligence (AI) has enhanced personalized and interactive language education. Studies by Karim et al. (2023) and Frayer and Carpenter (2006) emphasize that AI tools foster oral skill development through consistent practice and tailored feedback. Mahmudah and Daulay (2024) found that ELSA Speak significantly enhances students' pronunciation skills. Their study also investigated how mobile applications affect the pronunciation skills of EFL learners. Their

study demonstrated how interactive apps with capabilities like speech recognition and real-time feedback provided some benefits above conventional teaching techniques. According to Rizqiyana's research, students who utilized these programs demonstrated notable improvements in both their general speaking ability and pronunciation accuracy. Learners who utilized multimedia resources were able to remember their pronunciation abilities better than those who only used traditional textbooks.

According to ELSA Corp, the ELSA Application incorporates artificial intelligence (AI) for speech recognition using new software technologies such as machine learning and neural networks. Furthermore, only a few language programs are free (Arbain et al., 2023), making ELSA Speak a suitable option for the study's setting. This software can enhance users' English pronunciation using speech recognition (Pilar et al., 2013). By following the AI's feedback, students can improve their English pronunciation with speech recognition technology. The app provides themed classes to help users practice pronouncing essential groups of words, phrases, and sentences in English (Tamala & Santosa, 2023). Additionally, users can learn how to pronounce the word or phrase they are looking for using the app's interactive dictionary (Darsih et al., 2021). Therefore, this program offers innovative features, such as a curriculum crafted and tested by experts, an online dictionary, and tools for assessing stress and intonation to enhance pronunciation. Moreover, it is highly recommended that students improve their pronunciation. This makes it a complete language improvement solution. The application's utilization of Automatic Speech Recognition Technology (ASR) is another feature that sets it apart. This feature aims to convert the lexical content of human speech into a computer-processable format (Van Dormagen et al., 2016). Any errors found are then immediately corrected by the application.

The Effectiveness of the ELSA Speaking Tool in Enhancing Speaking and Pronunciation Skills

Several studies have emphasized the positive impact of the ELSA Speak application as an AI tool on learners' speaking and pronunciation abilities. These technological features make ELSA a verbal tool for addressing the shortcomings of conventional language-learning methods. Gelu (2020) conducted a study that found ELSA Speak significantly improves students' pronunciation accuracy and motivation to speak English by creating an engaging and interactive environment. According to Darsih et al. (2021), during the COVID-19 pandemic, ELSA Speak helped many learners improve pronunciation and fluency. In addition, it motivated them to practice regularly. In the study conducted by Akhmad and Munawir (2022), 82% of students reported positive opinions about ELSA Speak, showing it as a helpful tool for improving and enhancing pronunciation. These findings demonstrate ELSA's effectiveness in promoting self-directed learning, encouraging regular practice, and providing real-time feedback. Therefore, it offers precise pronunciation feedback, interactive exercises, and personalized learning pathways. According to Aratusa (2019), the ELSA Speak application empowers students to learn independently, manage their learning, and adapt to dynamic learning environments. Kholis (2021) asserts that the ELSA Speak application evaluates and comments on students' word and sentence pronunciation (Hanna et al., 2022). Students learning English pronunciation view ELSA Speak positively, which is essential for enhancing their

pronunciation abilities (Fauziah et al., 2024; Mahmudah & Daulay, 2024; Samad & Ismail, 2020). The results of the studies showed that ELSA is a valuable application for improving English pronunciation in all facets of assessment and instruction.

The ELSA application offers significant benefits for language learners. Research conducted by Kontogeorgou and Zafiri (2016) demonstrates that ELSA effectively improves grammar and pronunciation, two crucial components of effective communication. Unlike traditional classrooms that often provide limited speaking practice, ELSA offers extensive interactive opportunities, addressing this common pedagogical gap (Al-Sobhi & Preece, 2018). A key innovative feature is its AI-powered feedback system, which provides personalized corrections that enhance learners' self-awareness and promote reflective learning practices (Malik et al., 2019). Furthermore, the application incorporates gamification elements that significantly enhance learners' motivation to a great extent and involve learners in speaking practice (Frayer & Carpenter, 2006).

As stated above, ELSA is an AI application that can improve speaking abilities. ELSA Speak is an AI-powered tool that offers training in pronunciation, helping to overcome the limitations in traditional teaching methods. Pronunciation, which is considered an important subskill of speaking, is challenging for many EFL learners. This difficulty leads to anxiety and reduces their confidence in speaking. Furthermore, opportunities to practice and improve pronunciation are frequently limited in conventional learning in the classroom. Therefore, the goal of this study is to investigate how the ELSA application, as an AI tool, enhances learners' pronunciation skills. The main objective of this study is to investigate how the ELSA application, as an AI tool, enhances learners' pronunciation skills and to examine its effect on improving these skills. The second aim is to evaluate learners' perspectives on the use of ELSA in the learning process. To achieve the objectives of the present study, the following research questions have been formulated:

1. Does the ELSA Speak application, as an AI application, help improve EFL learners' pronunciation skills?
2. What are learners' attitudes toward this application?

Method

According to the concept that a research design is a framework for executing a study, it describes the techniques and steps required for gathering data and assessing the information obtained. This study employed a quasi-experimental design with two groups (experimental and control) to evaluate the effect of the ELSA application on learners' pronunciation. The goal of the speaking post-test was to determine whether the treatment had statistically significant effects on the performance of the experimental group. To ensure baseline equivalence, a pre-test (e.g., read aloud task with rubric scoring) assessed learners' initial pronunciation proficiency. Following the pre-test, the intervention was conducted, and subsequently, a post-test of similar structure measured changes.

Participants

The participants of this study were 50 EFL learners who were teenagers in an English institute. The participants were both male and female, and their ages ranged from 10–15. The

participants were placed in a level designed for young EFL learners in a language institute in Yazd, Iran, named ACECR. According to the placement test taken by both groups, they were placed in the level Family and Friends 4 of young learners.

Materials and Instruments

The learners in both groups had comparable levels of language proficiency. The study utilized three instruments: a speaking proficiency pre-test, a post-test, and a closed-ended attitudinal questionnaire.

Speaking Pretest

At the start of working with this application in the pre-test stage, learners read a sentence, and the ELSA Speak application provided them feedback and scores based on their pronunciation skills. After the pre-test, during the recording task, learners could record their voices and also receive input along with scores from the ELSA Speak application (Appendix A). After completing the pre-test, learners engaged in daily pronunciation practice using the ELSA Speak application over a 10-week intervention period (see Appendix B for activity details).

Speaking Posttest

In the post-test stage, learners reread the same sentences from the pre-test after completing their daily practice activities. The ELSA Speak application then provided automated feedback and pronunciation scores (see Appendix C for scoring criteria).

Questionnaire

A structured questionnaire was adopted and slightly modified from Tran and Vu (2024). The validity and reliability of the questionnaire revealed a Cronbach's alpha of .946, indicating very high internal consistency. A four-point Likert Scale questionnaire was utilized, with four response options: strongly disagree, disagree, agree, and strongly agree. The questionnaire included 12 statements that examined the participants' attitudes and perceptions regarding the usage of this application in improving learners' pronunciation skills. After the post-test, a clear explanation was provided by the researcher to the experimental group participants. The explanation was provided in their first language. Then the questionnaire was given to the participants of the experimental group via Google form.

Procedure

At the beginning, the classes for both the control and experimental groups were conducted twice a week on Saturdays and Wednesdays. Each class lasted 90 minutes and was held over a period of ten weeks. The material and the syllabus for both groups were also the same. In the second week, the pre-test was administrated to all the participants to determine their speaking scores at the beginning of this research. The participants in the experimental group used ELSA Speak for 10 weeks. In the control groups, the teachers did not place any specific emphasis on using ELSA Speak. In other words, they did not receive any training on using this application for their pronunciation activities. At the end of the treatment, the participants from both groups took the post-test. During the post-test stage, participants of both groups reread the statements. This final stage measured learners' pronunciation ability at the end of the semester, enabling a

comparison of speaking scores between the beginning and end of the semester to assess improvement.

Data Analysis

The pre-test and post-test results were visualized using bar charts. To ensure analytical rigor, we employed mixed ANOVA for statistical analysis. Questionnaire data were analyzed using descriptive statistics. As both tests were graded by two raters, we assessed inter-rater reliability using Cronbach's alpha to establish scoring consistency. Additional quantitative data from the second category were analyzed through frequency analysis and descriptive statistics using SPSS version 26.

Result

Normality

Table 1. Normality test of pre-test and post-test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretest	.088	50	.200*	.971	50	.251
Posttest	.083	50	.200*	.976	50	.413

The Normality test (Shapiro-Wilk and Kolmogorov) was conducted for pretest and posttest. Both tests indicated that the data in the pretest and posttest were usually distributed ($p > 0.05$).

Statistical Analysis Result for the First Research Question

The results of the first research question aimed to determine whether there was any difference in the pronunciation skills of the experimental group in favor of the post-test. At the beginning of the term, the pronunciation scores of both groups, as measured by the ELSA application were the same. After completing the treatment and working with ELSA activities, EFL learners in the experimental group took the post-test. This diagram shows the results of pretest and posttest of the experimental group in favor of the post-test.

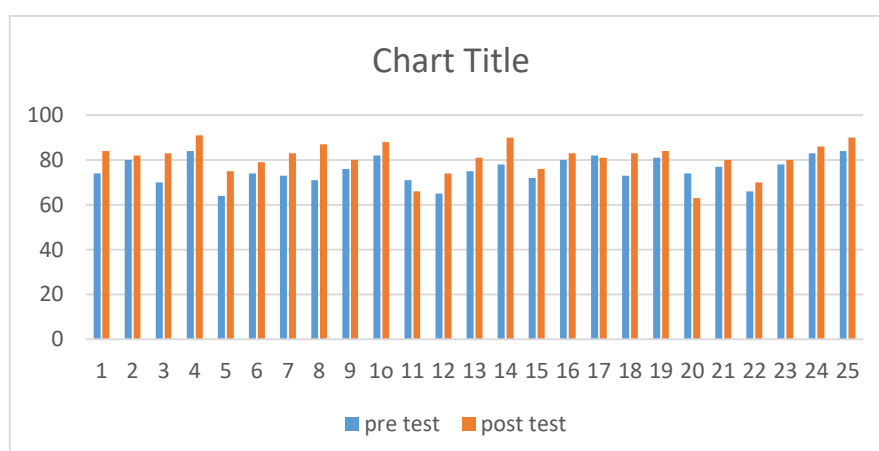


Figure 1. Analysis of the Experimental group's pre- test and post-test results

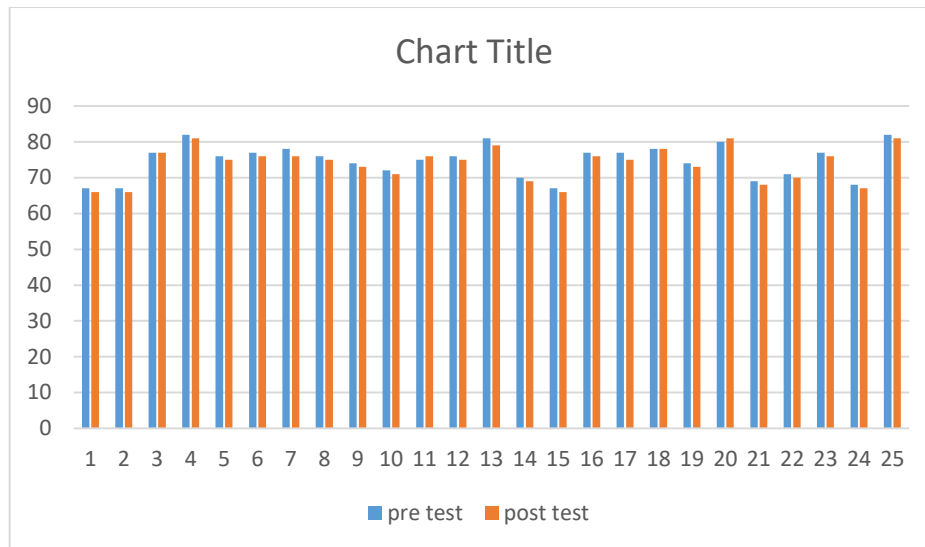


Figure 2. Analysis of the control group's pretest and post-test

As shown in Figure 2, the results of the control group did not differ significantly from pretest to posttest. The mean scores of pre-tests and post-tests of the Experimental and Control groups are presented in Table 3.

Table 2. Mean and Standard Deviation of Pre-test and Post-test Scores for Ex and CG

Descriptive Statistics				
	Group	Mean	Std. Deviation	N
Pre	Experimental	75.4800	5.79598	25
	Control	74.7200	4.68615	25
	Total	75.1000	5.23041	50
post	Experimental	82.1600	5.18556	25
	Control	73.9000	4.80668	25
	Total	78.0300	6.47240	50

According to Table 3, the participants in the experimental group outperformed the control group, as evidenced by the increased percentage from pre- to post-test, which rose from 74.8% to 82.1%. While the control group's performance remained largely unchanged, with only a slight decrease. The results confirm that the application of ELSA had a meaningful effect on the pronunciation of the participants, leading to an improvement in their pronunciation, while the control group's performance remained largely unchanged, with only a slight decrease.

Table 3. Result of Within-Subjects Effects Analysis

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Time	Sphericity	214.623	1	214.623	43.525	.000	.476
	Assumed						
	Greenhouse-Geisser	214.623	1.000	214.623	43.525	.000	.476
	Huynh-Feldt	214.623	1.000	214.623	43.525	.000	.476
	Lower-bound	214.623	1.000	214.623	43.525	.000	.476
	Sphericity	351.562	1	351.562	71.296	.000	.598
	Assumed						
	Greenhouse-Geisser	351.562	1.000	351.562	71.296	.000	.598
	Huynh-Feldt	351.562	1.000	351.562	71.296	.000	.598
	Lower-bound	351.562	1.000	351.562	71.296	.000	.598
Error(time)	Sphericity	236.690	48	4.931			
	Assumed						
	Greenhouse-Geisser	236.690	48.000	4.931			
	Huynh-Feldt	236.690	48.000	4.931			
	Lower-bound	236.690	48.000	4.931			

As shown in Table 4, the effect size for Mixed ANOVA is 0.65, indicating that scores improved from the pretest to the posttest. As indicated by the repeated measures ANOVA, which revealed a significant main effect of time ($F(1, 47) = 43.53, p < .001$, partial $\eta^2 = .476$), the dependent variable varied considerably across measurement points. The effect of time varied between groups, as demonstrated by a significant time \times group interaction ($F(1, 48) = 71.30, p < .001$, partial $\eta^2 = .598$). This indicates that group participation had a significant moderating effect and that the intervention or changes over time were not consistent across all individuals.

Table 4. Pairwise Comparison Between EG and CG in Post-test

Measure: MEASURE_1

		Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference	
(I) group	(J) group				Lower Bound	Upper Bound
1.00	2.00	4.510*	1.383	.002	1.729	7.291
2.00	1.00	-4.510*	1.383	.002	-7.291	-1.729

Based on the estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Pairwise comparisons revealed that the difference in mean post-test scores between the experimental and control groups was significant (Mean Difference = 4.80, $p = 0.042$). This result suggests that using ELSA led to a significant improvement in the learners' pronunciation. Moreover, post-hoc pairwise comparisons confirmed that the experimental group significantly outperformed the control group, with a mean difference of 4.51 points ($p = .002$). The 95% confidence interval [1.73, 7.29] indicates that the actual difference between groups is unlikely to be zero, reinforcing the effectiveness of the intervention.

Analysis of the Data for the Second Research Question

The second research question aimed to explore the participants' attitudes about using the ELSA application and its effect on their pronunciation skills. For this study, 25 participants in the experimental group completed an attitudinal questionnaire, which included 12 items with closed-ended items. The data were collected and analyzed through frequency analysis. It was conducted to investigate the learners' attitudes and perceptions towards using the ELSA application. A Thorough analysis and discussion of the questionnaire data are provided in Table 6.

Table 5. *Descriptive Analysis of Questionnaire's Items*

N	Statement	Mean	Standard deviation
1	I think the content provided by ELSA Application is meaningful and relevant.	3.32	690
2	I think the content provided by ELSA Application is of interest, too.	3.44	712
3	I think the content provided by ELSA is not overloading.	3,44	507
4	I think the ELSA Application provides me plenty of comprehensible input.	3.32	476
5	The ELSA Application provided me with a friendly, safe learning environment.	3.28	678
6	ELSA speak enhanced my self-confidence.	3.44	870
7	I find the ELSA Speaks valuable instruction in terms of individual sound articulation.	3.32	476
8	I find the ELSA Speaks helpful instruction in terms of individual sound distinction.	3.60	707
9	I find the ELSA Application valuable instruction regarding to stress and intonation.	3.20	707
10	I think the experience with ELSA involves processing language in real-time.	3.40	1.000
11	I think the experience with the ELSA application involves language items that are within my previous experience.	3.36	700
12	The experience with ELSA speaks encourages me to perform at a higher -than- standard level.	3.12	927

The questionnaire results indicate that the participants appreciated the significant role of the ELSA application in improving pronunciation skills. Most participants noted that this program helped them enhance their pronunciation ability. The participants strongly agreed that their pronunciation had improved. In summary, it can be concluded that the participants in the experimental group had a positive attitude toward using the ELSA Speak application.

Table 6. *Case Processing Summary*

		N	%
Cases	Valid	25	100.0
	Excluded ^a	0	.0
	Total	25	100.0

a. Listwise deletion based on all variables in the procedure.

Table 7. Wilcoxon Signed -Rank Test Ranks for Questionnaire Responses

		N	Mean Rank	Sum of Ranks
zero - Diff_Total	Negative Ranks	25 ^a	13.00	325.00
	Positive Ranks	0 ^b	.00	.00
	Ties	0 ^c		
	Total	25		

a. zero < Diff_Total

b. zero > Diff_Total

c. zero = Diff_Total

Table 8. Wilcoxon Signed-Rank Test Results for Questionnaire Items Analysis

		N	Mean Rank	Sum of Ranks
zero - Diff_Total	Negative Ranks	25 ^a	13.00	325.00
	Positive Ranks	0 ^b	.00	.00
	Ties	0 ^c		
	Total	25		

a. zero < Diff_Total

b. zero > Diff_Total

c. zero = Diff_Total

The mean questionnaire scores among the participants were significantly higher than the cut-off point level 3 ($Z = -4.37$, $p < 0.001$, $r = 0.87$). The large effect size indicates high acceptance of the application.

Discussion

The results of the first research question revealed that the ELSA Speak application significantly improves pronunciation skills. There was no difference between the two groups at the beginning of the experiment. According to the findings, the ELSA Speak application is a tool that learners can use to enhance their pronunciation skills. Learners can also improve their vocabulary and grammar. Therefore, by using the ELSA Speak application, learners have an opportunity to receive immediate feedback on their pronunciation of words. The speaking test results showed a significant difference between the Experimental group's pre-test and post-test scores. Therefore, the Experimental group demonstrated greater improvement in their post-test scores compared to their pre-test scores.

The results of the present study are in line with previous research emphasizing the effectiveness of AI-powered language learning tools. For example, Yin et al. (2021) found that ELSA significantly aids in improving EFL students' speaking and pronunciation skills by providing personalized feedback and engaging practice. Kholis (2021) reported that real-time corrective feedback from ELSA enhances students' pronunciation accuracy and self-confidence. Furthermore, Malik et al. (2019) highlighted that the application's feedback system enables learners to learn from their mistakes and fosters increased self-reflection in a supportive learning environment. Similarly, studies by Gelu (2020) and Darsih et al. (2021) demonstrate that the interactive and immediate feedback features of ELSA motivate learners to practice consistently, resulting in measurable improvements in fluency and pronunciation.

These findings collectively support the theoretical framework underpinning this study, confirming that AI-driven language learning applications like ELSA can successfully scaffold learner autonomy, reduce cognitive load, and provide targeted feedback that accelerates pronunciation skill development. Thus, the current study contributes empirical evidence in support of integrating such technology into EFL pedagogy to address the challenges learners face with pronunciation, as also noted in prior literature (Munro & Derwing, 1995; Levis, 2018).

Conclusion

In conclusion, this study highlights the significance of technology, particularly AI-powered resources such as the ELSA Speak application, in improving the pronunciation abilities of EFL learners. The findings demonstrate that ELSA Speak's advanced capabilities, such as Automatic Speech Recognition (ASR) and real-time feedback, make it an effective and engaging tool for students to practice and improve their pronunciation. The experimental group's remarkable improvement in pronunciation compared to the control group showed how effective ELSA Speak is as an additional learning tool. Furthermore, learners' positive attitudes towards the ELSA Speak application support its ability to create an engaging and dynamic learning environment. These findings are consistent with previous studies and highlight the revolutionary potential of AI and MALL in overcoming the limitations of traditional teaching methods.

The results underscore the value of integrating AI-powered applications like ELSA Speak into language instruction. Educators can utilize these tools to provide personalized, immediate feedback, promote learner autonomy, and foster sustained engagement both inside and outside the classroom. Careful use of ELSA Speak, especially when combined with clear teaching of pronunciation skills, can help fill gaps in traditional teaching methods, support different learning needs, and better serve diverse EFL students. Additionally, teacher training should include guidance on how to effectively use digital tools to get the most benefits. To get the most benefit from AI-based learning tools, future research should look at their effects over a longer time and how they can be used in larger language learning programs. It is also important to study how learner characteristics, such as age and first language, affect how well these AI pronunciation tools work. Using larger groups of participants and longer study periods would make future results more reliable and applicable to more learners. Finally, researchers should consider ways for programmers, teachers, and students to work together to create solutions that meet the different language learning needs in EFL education. In addition to confirming AI's place in language instruction, this study advocates for collaborative frameworks in which programmers, instructors, and students work together to create solutions for a range of linguistic needs. As a limitation of this study, it is important to note that no study is perfect, which is true of any study. The current research study included several restrictions that should be improved for future studies. The first limitation of the present study is the size of the sample, so the results of this study cannot be generalized. The study's second drawback was the time limit.

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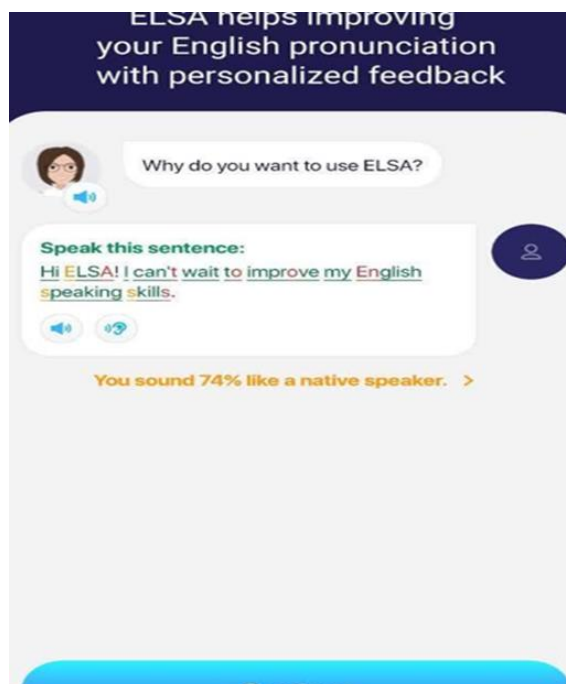
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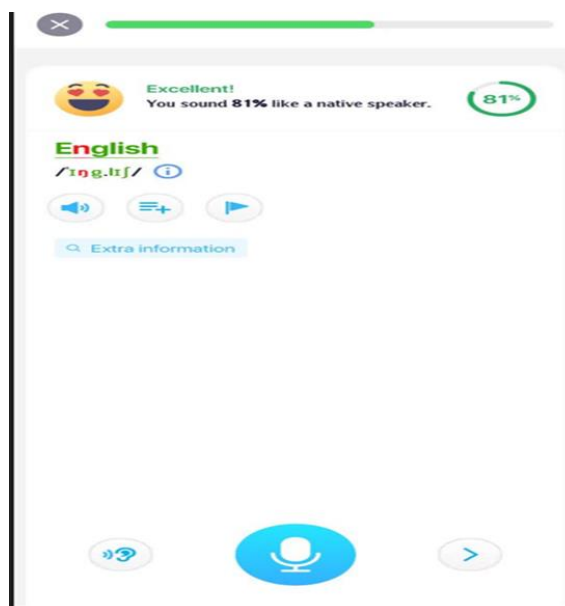
Appendices

Appendix A Speaking pre-test



Appendix B

Practicing with ELSA application



Appendix c

Speaking post test

The screenshot displays the Elsa Speak app interface during a speaking post-test. At the top, the sentence "Hi elsa, I can't wait to improve my English speaking skills." is shown with phonetic transcription and a green highlight on "speaking skills". Below this, a green bar indicates "Excellent!" with a smiley face icon. A progress bar shows "You sound 82% like a native speaker." with a green circle around the 82% mark. Two buttons are visible: "Try Again" (green) and "Try new word" (white). The interface is clean and modern, with a white background and green accents.

Hi elsa, I can't wait to improve my English speaking skills.

/haɪ 'eɪ.lə at kaɪnt weɪt tu ɪm'pruːv maɪ 'ɪŋɡ.lɪʃ
—'spiːkɪŋ skɪlz/

Excellent!

You sound 82% like a native speaker.

Try Again

Try new word