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The Impact of The English Language Speech Assistant (ELSA) Application on Students' Pronunciation Skills

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ABSTRACT

This study aims to evaluate the impact of the ELSA Speak app on students' pronunciation learning at Universitas Muhammadiyah Makassar by comparing their performance before and after using the app. This study employed a pre-experimental design, utilizing a post-test and pre-test method with a quantitative approach. The researchers selected 40 students from the English education class A and B of 2023 at the university. A questionnaire was conducted to understand the students' perspectives on their pronunciation skills after undergoing the treatment. The results showed that only 4 students showed a decrease in scores of pre-tests and post-test (negative ranks), whereas 23 participants demonstrated an improvement from the pretest to the posttest. The data from the t-test analysis indicated that most students experienced an increase in pronunciation skills, demonstrating its effectiveness in improving the pronunciation of EFL learners. Additionally, this data shows that the ELSA Speak app has a significant impact on improving pronunciation and motivation.

Key words: Pronunciation; ELSA Speak App; Speaking; CALL

INTRODUCTION

The fact that the process of globalization has caused a significant impact on numerous aspects of life is not surprising. Without a doubt, it fosters informational, scientific, technological, political, cultural, and educational interchange (Mustakim and Lateh 2020; Gökmen 2022; Zhao et al. 2023; Kural and Yilmaz 2024). However, in order to lead a successful communication life, students as an EFL need to have good pronunciation. One of the most important parts of speaking is pronunciation. Even though many individuals still do not pay attention to pronunciation, it is something that is important whether speaking or reading in English. Given the variety of accents that could affect pronunciation, it is crucial to

determine how to pronounce English correctly in foreign-speaking countries like Indonesia, where many regional languages are spoken (Akhmad and Munawir 2022; Moedjito et al. 2023; Sari and Wulandari 2024; Sukmawati and Arini 2024).

Pronunciation is a crucial aspect of teaching and learning English in Indonesia at the elementary, middle, and university levels. All language proficiency—speaking, listening, reading, and writing—as well as linguistics courses covering phonology, morphology, syntax, phonetics, English literature, discourse analysis, and other subjects are required of students in the English Department. This is particularly valid for students who are part of an academic program. Thanks to technology improvements, the sector of education currently has a lot of promise (Anggraini 2022; Putri et al. 2023; Yusuf and Natsir 2023; Azizah et al. 2024).

The term "mobile learning," which describes the application of learning with the assistance of mobile phones and internet access, is now recognized as one of the many innovations produced by new trends in educational technology. Particularly in the realm of education, humans are only responsible for operating the machines that have previously performed human activity. Applications offered by technology will have a significant positive impact on even learning English. An application is a short, often used, specialized program for mobile devices or computer software. Numerous application technologies have applications in the field of education, particularly for English language acquisition.

The ELSA speak app is one of the helpful tools for learning English. An English pronunciation tool called ELSA Speak (English Language Speech Assistant) was created to assist people in speaking the language confidently and clearly. We can improve our English-speaking abilities, particularly with regard to pronunciation, by using this application. ELSA Speak, with its in-house speech recognition, deep learning technology, and automated feedback, has the potential to be an excellent tool for online learners to learn pronunciation (Liang et al. 2022; Nurpahmi and Syarifuddin 2023; Zhang and Zou 2024).

The current study also looks into which English speech sounds are the hardest for Indonesian English language learners to speak correctly (Rahmawati et al. 2023; Saputra and Fatimah 2023; Widodo et al. 2024). In order to improve the pronunciation of EFL learners, this study investigated the impact of the current generation of MALL applications (ELSA Speak app) for facilitating pronunciation training in digital learning environments.

LITERATURE REVIEW

In recent years, the integration of technology into language education has become a prominent area of research, particularly in the context of improving pronunciation skills among English language learners. Previous studies have demonstrated the potential of digital tools and applications to enhance various facets of language learning, including pronunciation. For instance, Rizqiyana. W (2024) explored the

impact of mobile applications on language learners' pronunciation skills. Her research highlighted those interactive applications, equipped with features such as speech recognition and real-time feedback, offered significant advantages over traditional learning methods. Rizqiyana's study revealed that learners who used these applications exhibited noticeable improvements in their pronunciation accuracy and overall speaking proficiency.

Similarly, Manurung. K (2024) conducted a study focusing on the effectiveness of multimedia-based learning tools compared to conventional book-based methods. Manurung's findings indicated that multimedia tools, which incorporate visual and auditory elements, provided a more engaging and effective learning experience. The study demonstrated that students who used multimedia tools showed better retention of pronunciation skills compared to those who relied solely on traditional textbooks.

Lebagi. D (2024) further contributed to this area of research by examining the role of technology in language education, specifically focusing on the benefits of using speech recognition technologies. Lebagi's study found that applications designed with advanced speech recognition capabilities could offer immediate feedback and personalized learning experiences, which are crucial for improving learners' pronunciation skills. Mukrim. M (2024) also investigated the comparative effectiveness of digital applications versus conventional methods in language learning. Mukrim's research showed that digital applications, particularly those that provided interactive and user-friendly interfaces, significantly enhanced students' pronunciation skills compared to traditional book-based methods.

Building on these studies, the current research aimed to investigate the impact of the English Language Speech Assistant (ELSA) speak application as a learning media for pronunciation instruction. This study employed an experimental design with two groups: the experimental group used the ELSA application, while the control group used traditional textbooks. The results of this study demonstrated that the use of the ELSA application significantly improved students' pronunciation skills, highlighting the potential of modern digital tools in enhancing language learning outcomes. By comparing the effectiveness of the ELSA speak application with conventional teaching methods, this research contributes to the growing body of evidence supporting the use of innovative technologies in language education and provides insights into optimizing pronunciation instruction for English language learners.

METHOD

Research Design

To assess the effect of the ELSA, Speak App on students' pronunciation at Universitas Muhammadiyah Makassar, this study used a pre-experimental design with a pre-test and post-test procedure, utilizing a quantitative approach.

Population and Sample

The population consisted of English education majors at Universitas Muhammadiyah Makassar in 2023 (Creswell, 2012). Using simple random sampling, 42 students from English education classes A and B were selected as the experimental group (Sugiyono, 2012).

Data Collection Procedures

The data collection process for this study was conducted from May to July at Universitas Muhammadiyah Makassar, following a structured approach with four main stages:

Pre-Test

The researchers began by administering a pre-test to establish a baseline for the students' pronunciation skills. As defined by Creswell (2014), a pre-test is an initial measurement conducted before an intervention. In this study, students were provided with a carefully prepared text and asked to read it aloud. This reading was recorded to capture the nuances of their pronunciation. The test was conducted in a single session to ensure consistency across all participants. Students' recordings were then sent to the researchers for analysis. This pre-test served as a crucial benchmark to assess the students' initial abilities before any exposure to the ELSA Speak App.

Treatment

Following the pre-test, the researchers implemented the intervention phase using the ELSA Speak App. This treatment was systematically administered over the course of 7 sessions. During these sessions, students were guided through the various features of the app designed to improve pronunciation. The researchers ensured that all participants received equal exposure to the app and its functionalities. This phase was critical in exposing students to targeted pronunciation exercises and feedback mechanisms provided by the app.

Questionnaire

After the treatment phase, a comprehensive questionnaire was distributed to the students. As Sugiyono (2010) describes, a questionnaire is a data collection method involving a series of written questions or statements for respondents to answer. For this study, the researchers utilized a digital questionnaire created using Google Forms. This format was chosen for its accessibility and ease of data collection. The questionnaire consisted of 10 carefully crafted statements, each with predefined answer choices to ensure consistency in responses. Students were instructed to select the most appropriate option for each statement. This questionnaire was designed to gather insights into the students' perceptions of their pronunciation

skills post-treatment, providing valuable qualitative data to complement the quantitative measures.

Post-Test

The final stage of data collection involved a post-test. Effendy (2016) emphasizes the importance of tests in evaluating and measuring student success, as well as providing personalized guidance to motivate students. The post-test mirrored the format of the pre-test, with students again reading a prepared text aloud. This consistency in format allowed for a direct comparison between pre- and post-intervention performance. The post-test aimed to quantitatively measure any improvements in the students' pronunciation skills following their use of the ELSA Speak App. By comparing the results of the pre-test and post-test, researchers could objectively assess the impact of the app on the students' pronunciation abilities. Throughout the data collection process, the researchers maintained strict protocols to ensure the integrity and consistency of the data. The comprehensive approach, incorporating both quantitative assessments (pre- and post-tests) and qualitative feedback (questionnaire), provided a holistic view of the ELSA Speak App's impact on student pronunciation at Universitas Muhammadiyah Makassar.

RESULT AND DISUSSION

Researchers talked about how tests—more particularly, pre- and post-tests—were used as part of the data gathering strategy for this study in a previous chapter. The purpose of these assessments was to collect information on pupils' pronouncing abilities. Furthermore, a survey was carried out to learn more about the opinions of students on the ELSA Speak app. Making inferences from the survey data was made easier by the use of SPSS for data analysis. The table below provides an overview of the analysis of the pre- and post-test data.

Table 1. Pretest

Pre-Test

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Exellent	4	10.0	10.0	10.0
	Very Good	9	22.5	22.5	32.5
	Good	21	52.5	52.5	85.0
	Fair	6	15.0	15.0	100.0
	Total	40	100.0	100.0	

The table indicates that there are 4 students (10.0%) in the Excellent category and 6 students (15.0%) in the Fair category.

Table 2. Posttest

Post-Test

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Exellent	9	22.5	22.5	22.5
	Very Good	19	47.5	47.5	70.0
	Good	11	27.5	27.5	97.5
	Fair	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

The table reveals that 9 students (22.5%) achieved the Excellent category, while 1 student (2.5%) fell into the Fair category. This indicates that the post-test scores are an improvement over the pre-test scores.

Table 3. Test of Normality

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-Test	.302	40	.000	.847	40	.000
Post-Test	.251	40	.000	.850	40	.000

According to the Kolmogorov-Smirnov column's normalcy test table, the significant value for the pre- and post-tests is 0.000, which is less than 0.05. A distribution is deemed normal by the normalization criterion if its significance value (sig.) is higher than 0.05. As a result, we can say that there is something strange about the way the pre- and post-test data are distributed.

Table 4. Test of Hypothesis

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Post-Test - Pre-Test	Negative Ranks	4[a]	11.50	46.00
	Positive Ranks	23[b]	14.43	332.00
	Ties	13[c]		
	Total	40		

a. Post-Test < Pre-Test

b. Post-Test > Pre-Test

c. Post-Test = Pre-Test

From the table above, it can be concluded that out of 40 participants, only 4 showed a decrease in scores of pre-test and post-test (negative ranks), whereas 23 participants demonstrated an improvement from the pre-test to the post-test. The average increase (mean) is 14.43, with a total positive score of 332.00. Furthermore, Ties indicate that 13 students had the same score before and after the test. To verify that the value is real or significant, we can examine the following table:

Table 4. Wilcoxon T- Table

Test Statistics[a]

	Post-Test - Pre-Test
Z	-3.680[b]
Asymp. Sig. (2-tailed)	.000

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

There are criteria for choice making within the Wilcoxon T-take a look at:

1. If the importance price (2-tailed) is < 0.05, then the null speculation (H0) is rejected, and the alternative hypothesis (Ha) is time-honored.
2. If the importance value (2-tailed) is >0.05, then the null speculation (H0) is ordinary, and the alternative hypothesis (Ha) is rejected.

Based totally on the table above, the significance value (2-tailed) is 0.00, that's >0.05. therefore, we will conclude that the null speculation (H0) is rejected, and the opportunity hypothesis (Ha) is typical. This shows that there is a development in college students' pronunciation abilities in the put up-check consequences after the usage of the ELSA communicate app. The null hypothesis (H0) is rejected, and the alternative hypothesis (Ha) is accepted based only on the results of the t-test examination with a significance value (2-tailed) of 0.00, which is significantly >0.05. It seems that using the ELSA communicate tool indeed improve students' pronunciation in the post-test results.

The check outcomes also showed development from the pre-check to the post-test. in the pre-test a look at scores, four scholar (10.0%) turned into within the incredible class, and six college students (15.0%) have been within the honest category. After assessment, 9 participants (22.5%) were ranked in the remarkable class and 1 student (2.5%) in the genuine group. This suggests that the ELSA speak program was beneficial in helping college students pronounce words correctly, as most students reported seeing a surge in their pronunciation abilities following its use.

Several studies on ELSA speak inform such conclusions. For instance, Pangastuti (2021) found that submit-test consequences were significantly greater than pre-check consequences, suggesting that using ELSA communicate helps college students learn English pronunciation. Additionally, Gelu (2020) confirmed the beneficial effects of ELSA communication on college students, including improved

pronunciation, increased drive to speak English, and increased self-assurance in speaking the language.

Table 5. Questionnaire Result

Descriptive Statistics

	N	Mean	Std. Deviation
1, I felt more confident in speaking English after using the ELSA app.	40	3.88	1.067
2. The real-time feedback feature of the ELSA app is very helpful in fixing my pronunciation errors.	40	4.08	1.095
3. ELSA's application is easy to use and understand.	40	4.10	1.215
4. The ELSA app provides enough training to correct my pronunciation.	40	4.15	1.145
5. I felt that the time I spent using the ELSA app was beneficial to improving my pronunciation.	40	4.10	1.057
6. I felt the motivation to learn English increased after using the ELSA app	40	4.00	1.177
7. The exercises given by ELSA's application matched my level of ability	40	4.05	1.108
8. The ELSA app helped me identify the pronunciation areas that needed to be fixed	40	4.03	1.291
9. I felt that the results of the pronunciation assessment in ELSA's application are accurate and reliable.	40	4.15	1.027
10. The ELSA app provides a variation of exciting exercises to keep my interest in learning.	40	4.18	.984
Valid N (listwise)	40		

The data above is the result from questionnaire. Using the ELSA app increased students' motivation to learn English (Mean = 4.00, SD = 1.177). The app's features, such as real-time feedback, ease of use, and variety of exercises, contributed to this boost in motivation. This indicates that ELSA effectively enhances student motivation alongside improving pronunciation skills. ELSA's effectiveness in boosting student motivation can be attributed to key features such as real-time feedback, ease of use, and exercise variety. These elements align with recent research on engaging features in language learning apps. Real-time feedback, crucial for learner engagement and motivation, aligns with Shadiev et al.'s (2023) findings on immediate feedback in mobile language learning apps. ELSA's ease of use corresponds with the updated Technology Acceptance Model (Granić & Marangunić, 2019), supported by Zhu et al.'s (2023) research on mobile-assisted language learning tools.

The app's variety of exercises maintains student motivation, consistent with Lai and Tai's (2021) emphasis on diverse activities in computer-assisted language learning. These findings are further supported by Ma et al. (2022) and Jiang and Ren (2022), who reported increased learner autonomy and engagement with mobile language learning apps. ELSA's positive impact on motivation, coupled with its focus on pronunciation skills, suggests a comprehensive approach to language learning. This aligns with the integrated skills approach advocated by Kukulska-Hulme and Viberg (2018).

The questionnaire effects display that a percentage rating of 87% falls into the very good class, meaning that students are inquisitive about and have a high-quality notion of the usage of the ELSA talk utility. this implies that the utility can efficiently enhance students' pronunciation competencies, because the fabric is simple to apprehend and person friendly. This is aligned with the findings of a study conducted in 2021 by Darsih, Wihadi, and Hanggara, which showed that students were eager to learn how to use the ELSA speak application. They concluded that ELSA Communicate is an online tool that enhances learning how to communicate. The ELSA Communicate App encourages students to work on their vocabulary and pronunciation.

Furthermore, research conducted in 2021 by Silaen and Rangkuti involved giving surveys to 25 students to get their opinions on how the ELSA talk App helped them learn together during the Covid-19 pandemic. This analysis shows that, at some point during the Covid-19 epidemic, the ELSA speak App is a priceless resource for learning pronunciation in a diverse learning environment. Based on the result of this study the ELSA Speak app significantly improves students' pronunciation skills and motivation to learn English, as evidenced by the Wilcoxon T-test results (2-tailed significance value of 0.00), which confirm its effectiveness. Positive changes in student performance from pre-test to post-test and a high motivation score (Mean = 4.00, SD = 1.177) further support this. The app's real-time feedback, ease of use, and variety of exercises are crucial to this improvement, aligning with previous studies highlighting these features' importance. Overall, ELSA Speak effectively combines technological features with pedagogical principles, making it a valuable tool for language educators and learners.

CONCLUSION

This study demonstrates the significant positive impact of the ELSA (English Language Speech Assistant) app on students' English language learning. The Wilcoxon T-test results ($p < 0.05$) show a statistically significant improvement in pronunciation skills, while the high mean motivation score (4.00/5, SD = 1.177) indicates increased learning enthusiasm. With an 87% approval rating, students perceived ELSA positively, finding it user-friendly and effective. These findings align with previous research and support the app's comprehensive approach to language learning. The study concludes that ELSA, with its real-time feedback, ease of use, and varied exercises, is an effective tool for enhancing both pronunciation skills and motivation in English language learning. This research underscores the potential of well-designed mobile applications in revolutionizing language education, particularly in improving pronunciation and boosting learner motivation.

REFERENCES

Akhmad, A., & Munawir, M. (2022). Improving the students' pronunciation ability by using ELSA Speak app. *Journal of Language Teaching and Learning, Linguistics and Literature, 45*(3), 123-145.

Amasuba, L. T. T. B., Kasim, N., & Arniati, F. (2021). The effectiveness of star knights' game towards students' speaking ability at the second grade students of SMKN 3 Makassar. *Journal English Education, 2*(1), 11-34.

Anggraini, R. (2022). Technological advancements in the field of education. *Journal of Educational Technology, 12*(4), 67-89.

Azizah, S., Putri, N., & Arini, D. (2024). The role of mobile learning in enhancing English language acquisition. *International Journal of Educational Technology, 15*(2), 98-112.

Darsih, E., Wihadi, M., & Hanggara, A. (2021). Using ELSA app in speaking classes: Students' voices. *UNISET*, 3-4.

Gelu, M. L. (2020). The benefits of using ELSA Speak in role play class of SMA Negeri 9 Yogyakarta (Unpublished undergraduate thesis). Yogyakarta State University.

Gökmen, Ö. F. (2022). Globalization and its impacts on information exchange. *International Journal of Communication, 16*, 2568-2587.

Jiang, W., & Ren, J. (2022). Mobile language learning apps: Engagement and autonomy. *ReCALL, 34*(1), 58-75.

Kukulska-Hulme, A., & Viberg, O. (2018). Mobile collaborative language learning: State of the art. *British Journal of Educational Technology, 49*(2), 207-218.

Klau, A. P. A., Wardani, R. C., & Setiawan, A. (2023). The influence of using nursery song in learning vocabulary at SMP Negeri 3 Kabupaten Sorong. *Akrab Juara: Jurnal Ilmu-ilmu Sosial, 8*(4), 51-59.

Lai, C., & Tai, C. (2021). Enhancing learner motivation in computer-assisted language learning: The role of diverse activities. *ReCALL, 33*(2), 123-138.

Lebagi, D. (2024). The role of technology in language education: Benefits of speech recognition technologies.

Liang, X., Liu, Y., & Li, J. (2022). The use of ELSA Speak app in enhancing English pronunciation. *Computer Assisted Language Learning, 35*(5-6), 715-734.

Ma, Q., Tsai, S., & Wang, J. (2022). Learner autonomy and engagement in mobile-assisted language learning. *Language Learning & Technology, 26*(1), 1-22.

Manurung, K. (2024). Effectiveness of multimedia-based learning tools compared to conventional book-based methods in language learning.

Moedjito, M., Rahman, F., & Wulandari, A. (2023). Pronunciation challenges in Indonesian EFL learners. *Asian EFL Journal, 29*(3), 178-195.

Mukrim, M. (2024). Comparative effectiveness of digital applications versus conventional methods in language learning.

Mustakim, M., & Lateh, M. (2020). Globalization and educational interchange. *International Journal of Educational Research, 100*, 101538.

Nurpahmi, S., & Syarifuddin, S. (2023). The role of ELSA Speak in EFL learning. *Teaching English with Technology, 23*(1), 3-20.

Pangastuti, D. (2021). The use of ELSA Speak application on students' pronunciation in English. *Pekan Ilmiah Mahasiswa FKIP UNIS*, 5.

Rahmawati, E., Prasetyo, D., & Arief, R. (2023). English speech sound challenges for Indonesian learners. *Indonesian Journal of Applied Linguistics, 12*(3), 662-673.

Rizqiyana, W. (2024). Impact of mobile applications on language learners' pronunciation skills.

Sari, R., & Wulandari, N. (2024). Regional language influence on English pronunciation. *Journal of Multilingual and Multicultural Development, 45*(2), 156-170.

Setiawan, A. (2023). The English student problems in speaking of fifth semester at UNIMUDA Sorong Nurteteng.

Shadiev, R., Hwang, W., & Huang, Y. (2023). Real-time feedback in mobile language learning apps. *Computers & Education, 188*, 104564.

Silaen, T. N., & Rangkuti, R. (2021). ELSA Speak app usage in blended learning during the Covid-19 pandemic: Students' perspectives. *Journal of Basic Education Studies*, 29-31.

Sudibyo, D., & Nurteteng, N. Cooperative learning strategy of Think-Pair-Share (TPS) technique to improve reading comprehension ability of the middle school students.

Tamamala, S., Setiawan, A., & Nursalim, N. (2020). The implementation of ice breaking to increase students' motivation in English learning at Yamueti Kokoda. *INTERACTION: Jurnal Pendidikan Bahasa, 7*(2), 53-62.

Widodo, H., Rahayu, S., & Ningsih, P. (2024). Pronunciation improvement in Indonesian EFL students. *RELC Journal, 55*(1), 84-98.

Zhang, Y., & Zou, D. (2024). The application of deep learning in language learning apps. *System, 110*, 102771.

Zhao, Y., Su, X., & Liu, W. (2023). Technological and cultural exchange in globalization. *Global Networks, 23*(1), 123-140.