

The Effectiveness of Using ELSA App on Improving Saudi Students' English-Speaking Skills

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Abstract

Speaking is a challenging skill for the majority of English as a foreign language (EFL) learners around the world. Therefore, experts are researching the potential affordances of Artificial Intelligence (AI) as a tool to develop speaking skills. The ELSA App is a prominent example of an AI application that can provide instant corrections to the user to improve their speaking skills. Although app reviewers claim it is effective for enhancing speaking skills, there is minimal research confirming its effectiveness as a tool for enhancing key English-speaking skills, such as pronunciation, fluency, cohesion, and expanding lexical resources. To contribute to the literature in this area, this study sought to evaluate the efficacy of the ELSA App as a tool to develop Saudi high school students' speaking skills. In addition, it aimed to explore their perceptions with regard to using the ELSA App to develop their English-speaking skills. In total, 30 high school students from Saudi Arabia were selected as the research sample. The participating students were divided into two groups, comprising 15 in the control group and 15 in the experimental group. A mixed-methods study design was used to answer the study questions. Data were collected using two research tools: a pre- and post-test speaking test, and a closed and open questionnaire. The students' tests were corrected using IELTS rubrics. The questionnaire was arranged into two sections: closed questions based on a five-point Likert scale that was analyzed statistically, and open questions analyzed using content analysis. The results indicated that students in the experimental group experienced positive improvement at varying levels in terms of pronunciation, fluency, coherence, grammatical range and accuracy, and lexical resources in speaking skills. Moreover, the students had positive opinions about using the ELSA App to practice and develop their English-speaking skills. Thus, it appears the ELSA App in general had a significant positive impact on the Saudi student participants' speaking skills, offering them a fertile interactive environment. This finding has valuable implications and prompted recommendations for teachers and EFL learners.

Keywords: ELSA App, Artificial Intelligence, Speaking Skills, High School Students, EFL learners, E-Learning, Teaching.

1. Introduction

Some education researchers are incredibly involved in technology-assisted language learning and teaching practices and seek results that demonstrate the effectiveness of Artificial Intelligence (AI) in improving learning outcomes by providing resources or learning materials to learners (Alharbi, 2013; Cisneros-Brussel, 2023). Artificial Intelligence (AI) applications provide many educational resources useful in learning and teaching the language, including communication and live transmission of audio and images, webcam, audio recording, video messages, and others (Santiana et al., 2021).

The use of Artificial Intelligence (AI) has led to a unique transition, especially in the process of learning and teaching languages, as it has moved the focus from the teacher as the only source of information to diverse and renewable sources that the learner can constantly explore (Başak, 2019). Where learners can now explore new knowledge, sciences, and information independent of the information provided by the teacher, i.e. active learning (Liu & He, 2015). Modern applications on computers and mobile phones promote language learning by forming positive attitudes towards learning (Nguyen & Vo, 2021).

Some studies have suggested using Artificial Intelligence (AI) to learn and teach languages including grammar, vocabulary, reading, listening, speaking, pronunciation, etc. (Khoulis, 2021; Nguyen & Vu, 2021, Aswafi & Indari, 2022). Due to the increasing rate of use of technology applications in the Kingdom of Saudi Arabia, Al-Harbi (2015) expressed that technological applications via phone and computer are effective in learning and teaching English speaking skills to Saudi learners. The ELSA application is used to create a flexible interactive environment that facilitates understanding the English language more smoothly.

ELSA aims to provide students with a comprehensive way to develop their speaking abilities and create an enjoyable and useful learning experience by utilizing several elements (Shalikhha & Fakhryana, 2023). Students are actively involved in the learning process due to the interactive tasks available in ELSA App (Hassaryani, 2021). Users may be asked to imitate native speakers, repeat words, phrases, or entire conversations, or practice certain sounds or intonation patterns during these exercises (Shalikhha & Fakhryana, 2023). The interactive design of these activities promotes engagement and helps develop speaking skills in a valuable and fun way (Cisneros-Brussel, 2023).

2. Statement of the Problem

Despite intensive efforts and significant investments in English language teaching, Saudi high school students are still below expectations and are not fully satisfied with their ability to speak English (Al-Amer & Al-Khatib, 2023). The outputs, i.e. speaking skills, are still rare, and the comprehensible outputs and speaking clearly and understandably are still almost non-existent. Despite the evident efforts made by teachers to push and motivate students to speak the English language in front of several students in the classroom, this matter causes discomfort for some of them, which leads to a rise in the level of the affective filter and thus hinders language acquisition (Stephen, 1981).

To improve their performance in speaking English, it is expected that more contemporary technology will be embedded in the traditional teaching and learning environment (Klimova, Pikhart, et al., 2023). Technology is now being used more often, and many students consider it an essential tool for their education (Al-Anezi, 2023). In agreement with (Khoulis, 2021; Nguyen & Vu, 2021; Aswafi & Indari, 2022; Hassaryani, 2021; Shalikhha & Fakhryana, 2023; Samad & Aminullah, 2019; Samad & Ismail, 2020), there are a few studies discussed specifically using speaking apps such as ELSA to develop speaking skills.

This study will demonstrate the effectiveness of using the ELSA application on speaking skills and the practical application of using the ELSA App in teaching English speaking skills in Saudi high schools. As a result, I divided the main problem facing Saudi students into four critical issues in learning English speaking skills. The first problem students face is not speaking English accurately and fluently. The second problem is that Saudi students find it challenging to use their English outside the classroom. In addition, Saudi students are unsure whether their spoken language is appropriate and meets the standards of the speaking skills test i.e., IELTS, TOFEL. Finally, EFL students often provide brief responses to inquiries and do not typically continue the conversation.

The study's significance arises from the need to improve Saudi learners of English as a foreign language's overall speaking skills weakness and how these novel resources, such as ELSA App, will better improve Saudi learners' language skills in general and speaking proficiency in particular. Additionally, this study offers students an enjoyable alternative to the typical classroom setting for learning the target language. As a result, they will become more fluent in the language, mainly when speaking.

3. Aims and Research Questions

In this thesis, I aimed to use Artificial Intelligence (AI) applications such as ELSA App to critically analyse the benefits and merits of using ELSA App in teaching and learning English as a foreign language and improve Saudi high school students' speaking skills, namely their Pronunciation, Grammatical Range and Accuracy, Lexical Resource, Fluency and Coherence within specific education settings. To meet these ends, I asked:

- 1) To what extent does using ELSA App improve Saudi high school students English-speaking skills in terms of pronunciation, grammatical range and accuracy?
- 2) To what extent does using ELSA App improve Saudi high school students English-speaking skills in terms of lexical resources, fluency and cohesion?
- 3) What are the differences between control group and experimental group in developing English speaking aspects, pronunciation, grammatical range and accuracy, lexical resources, fluency and cohesion?
- 4) What is the Saudi students' perspective towards ELSA App in developing English speaking aspects, pronunciation, grammatical range and accuracy, lexical resources, fluency and cohesion?

4. Literature Review

In this study, I adopted the Audio-visual Approach (Comenius, 1670) as a technology-based approach that has gained several positive outcomes from the EFL learners. By adopting AVA, learners can automatically imitate the target speaker's language style in terms of accent, pronunciation, fluency, lexical resource, grammar range and accuracy, even comprehend the entrance and exit of the letter by mimicking and gestures and linking sounds to picture to ensure an excellent comprehension of words pronunciation, their meanings, and retrieving them later. Rivers argued that:

“In its simplest form the audio-visual approach has been employed for many years in classroom where objects, pictures, actions, and gestures have been systematically used with aural-oral work to elucidate meaning... advocates of an audio-visual approach put forward several reasons for considering the visual element essential to the efficient learning and speaking” (Rivers, 1968, p. 175).

Computer-mediated communication (CMC) technological tools provide life-like opportunities to talk and get human feedback either with other L2 learners or L1 speakers. I learned via reading and study that there have been some studies on using the ELSA program to enhance speaking skills, particularly pronunciation (Munawir et al., 2022; Rinaepi & Azi, 2022; Sholekhah & Fakhurriziana, 2023).

Speaking skills are divided into two categories: Fluency, which is the ability to generate ideas, words and phrases smoothly and in a continuous flow without confusing pauses when speaking (Biancarosa, & Shanley, 2016). The other main component is accuracy, which is the learner's ability to use words in the correct contexts, choose the tone of voice that suits the topic of the conversation (Derakhshan et al., 2016). These are the elements of speaking skills:

Pronunciation. refers to the way words or sounds are produced correctly following the principles of sound, i.e. stress, assimilation, intonation, etc. Because pronunciation is important in changing meaning and an error in it may lead to conveying a wrong message and directly affect communication, it is even more important for students of English as a foreign language (Adela & Rifinaldi, 2019).

Grammar. Rossiter (2021) defined it as the standard by which the learner's linguistic competence and output are measured. It is one of the reasons that confuse students when starting to speak and makes them hesitate to speak for fear of using the wrong tense (Malova, 2016).

Vocabulary. “Without grammar, not much can be conveyed, and without vocabulary, nothing can be conveyed” (Wilkins, 1972, p. 111).

Fluency. It is one of the critical elements in the speaker's resemblance to the native speaker (Biancarosa & Shanley, 2016).

Comprehension. The ability to understand a topic is called comprehension. Comprehension involves knowing everything about the topic one is going to speak about or write about in terms of its definitions, uses, etc., understanding it comprehensively and deeply, and incorporating it into one's knowledge.

English Language Speech Assistant ELSA as Artificial Intelligence App

ELSA App is one of the many online languages learning systems; ELSA has demonstrated promise in helping EFL students overcome communication barriers. For instance, the application ELSA Speak was created to help non-native English speakers improve their speaking skills. ELSA App is an acronym for “English Language Speech Assistant,” it uses advanced artificial intelligence and speech recognition technologies to provide practice activities and tailored feedback (Hanna et al., 2022).

The application aims to help users overcome any speaking issues they might be having to increase their confidence and fluency in spoken English. The ultimate objective is to enable non-native speakers to communicate more efficiently and confidently in various contexts, whether professional or academic settings, or everyday dialogue. By offering a variety of exercises and practice activities, ELSA Speak provides non-native English speakers with the resources they need to take control of their journey toward enhanced speaking abilities (Dhivya et al., 2023).

According to Munawir et al. (2022), using ELSA Speak App significantly improves pupils' speaking abilities. According to their research findings, the app's features allow students to practice their communication skills and receive tailored feedback and guidance based on its sophisticated algorithms and artificial intelligence. Additionally, ELSA offers a vast selection of drills and practice materials focusing on speaking abilities, including vowel sounds, consonant sounds, intonation, stress patterns, and word connections. To stay up with the rapidly changing world and live in a global society, students can learn independently and organise their learning with the help of this application and specific learning styles.

Another study by Permatasari and Lubis (2024), that searched in the effect of using ELSA application on improving the speaking skills of English language students in Indonesia was investigated. The study was quasi-experimental with a control sample and an experimental sample using pre- and post-tests of speaking and comparing the results and deducing differences with students who use another application U-Dictionary. The results showed that students who used ELSA application showed improvement in English speaking skills, especially pronunciation and correct sentence structures while speaking compared to those who used U-Dictionary. This study concludes that ELSA application is effective and recommended as a tool to improve English speaking skills.

5. Research Design

To address the research questions and find out how using ELSA App affects Saudi students' speaking skills, I used a mixed method approach, which mixed numerical and non-numerical data to address research questions. I chose this approach because it increases the validity, completeness, and understanding of the research gap and provides more meaningful and solid results (Morse, 2016). SPSS Application was used to show quantitative data. To show the qualitative data, the content analysis method was also used.

First, I tested their speaking skills before using ELSA App (without treatment) and after using ELSA App (with treatment) to measure the effectiveness of using ELSA App on their speaking skills. After that, I showed the results and discussed them in terms of validity and reliability.

6. Research Instrumentations

6.1 Speaking Test

The speaking test consisted of two tests (a pre-test and a post-test) that were adopted from the IELTS speaking test (Appendix A). The pre-speaking test for each student in both groups was conducted as a first step to obtain preliminary results and compare them later with the post-speaking test after experimenting. After the pre-speaking test scores were calculated, the experiment was conducted by applying ELSA App for 15 students over 7 weeks. The post-speaking test for each student in both groups was conducted as a final step to obtain results and compared them to the pre-speaking test before experimenting. To determine ELSA App effectiveness in developing students' English-speaking skills, I used Speaking Evaluation Rubrics (Appendix B), according to the correction criteria followed in the IELTS test. I counted the pre- and post-test scores out of 9 marks for each aspect; pronunciation, grammatical range and accuracy, lexical resources, fluency and cohesion for each student in both groups. I compared them using the descriptive SPSS software. Based on the difference in scores between the two groups in pre- and post-test performance.

6.1.1 Training Students on ELSA App Before Conducting Speaking Test

I trained the students on using the application in detail and guided them on the correct steps to activate it to develop their speaking skills. Student training sessions were divided into two parts: in-person at school and remotely using the Internet. In attendance, to control the participants and ensure their knowledge of how to use the application and provide training on the application icons and solve the problems they face, in short, pushing the wheel to ensure its continuity.

The class time was allocated from 10 to 15 minutes to train the students, at the end of the class. The duration of the training was 7 weeks (about a month and a half), with 3 training sessions per week, for a total of 21 training sessions. Thanks to the cooperation of the school principal, the English language supervisor, and the students, who participate in the experiment.

6.1.2 Data Collection Procedures

At first, the researcher chose speaking tests that were appropriate to the students' level, so she avoided complex topics that required an advanced language. Scores were given to each item in the test that measured the students' speaking abilities, and their answers in the speaking test were recorded. I extracted and classified the results scores, converted them into percentages that serve the research objectives, and discussed them in the results section.

After completing the 7-week training on using the App, I set a day to test post-speaking skills with the students. The duration of the test was 15 minutes for each student. I evaluated the students' performance during the speaking test for both the control and experimental groups using evaluation tools for the IELTS test. After that, I added the grades earned to the grades table to compare the pre- and post-grades.

6.1.3 Reliability & Validity of the Test

Test validity is "the degree to which a test measures what it seeks or intends to measure" (Brown, 1996, p. 231). In this regard, IELTS test is considered one of the most valid tests in measuring English language skills: speaking, writing, reading, and listening, and the sub-skills they include.

6.2 A Questionnaire

The survey questions were centered around their perspective's about using the ELSA application and the challenges they faced in speaking while using it. The questionnaire contained two sections: open-ended questions and closed-ended questions. Adopted and modified from two research papers Nguyen and Vo (2021) and Abugohar et al. (2019) (See Appendix C).

The preparation and construction of the questionnaire went through two phases. The first phase is divided into two types of questions; Open-ended and closed-ended. For the first type, students were asked about the importance of speaking skills and the advantages of using ELSA App in developing their speaking skills. The second type, which was open-ended questions that asked about students' challenges that they have faced in developing speaking skills while using ELSA App. As for the validity of the questionnaire, it is considered valid if it measures the phenomenon that prepared to measure. Accordingly, the researcher relied on verifying the tool's validity in two ways.

First, external validity which based on the opinions of Experts. The researcher presented the questionnaire in its initial form to several experts and specialists, and they were asked to review the questionnaire.

Second, the internal validity of the questionnaire was achieved by calculating the Pearson correlation coefficient between the score of each statement and the total score of the questionnaire. Table 1 shows the results.

Table 1. Pearson correlation coefficient (correlation)

Pearson Correlation	Statements No
.935**	1
.714**	2
.817**	3
.935**	4
.856**	5
.891**	6
.749**	7
.851**	8
.912**	9
.900**	10

** . Correlation is significant at the 0.01 level

Table 1 shows that all values of the correlation coefficients between the score of each statement and the total score of the questionnaire are statistically significant, which indicates the interconnection of these statements and their validity for application to the study sample.

To achieve the reliability of the questionnaire, Cronbach's alpha equation was calculated by using the statistical analysis of (SPSS) program was used. Table 2 shows the relevant results.

Table 2. Cronbach's alpha equation

Cronbach's Alpha	N of Items
.955	10

Table 2 shows that the reliability value according to the Cronbach Alpha equation for the questionnaire is statistically high, as (Abu Hashem, 2003) indicates that the reliability coefficient is considered statistically high if its value is higher than (0.80), which means the reliability of the questionnaire.

7. Quantitative Findings

The study results are presented by answering the questions. The first research question was about the extent to which the use of ELSA App had developed Saudi high school students' English-speaking skills in terms of pronunciation, grammatical range and accuracy. The second research question was about the extent to which the use of ELSA App had developed Saudi high school students' English-speaking skills in terms of lexical resources, fluency, and cohesion.

To answer these two questions, pre- and post-tests were used as a tool for data collection. The students' scores for both groups in the pre- and post-tests were collected and compared using descriptive statistics represented by the

mean, the standard deviation, the difference between the two means, and the percentage of improvement were used to identify the level of improvement of the Saudi students in the English-speaking sub-skills for the control and experimental group. Table 3 shows the results. After that, inferential statistics were used to compare their levels of improvement in answering the third research question.

Table 3. Pre- and post-test speaking results for both groups

Speaking sub-skills	Group	Test	N	Mean	Std. Deviation	Mean Difference	Improvement Rate
(FC)	Control	Pre	15	5.83	1.358	0.07	0.8%
		Post	15	5.90	1.089		
(LR)	Control	Pre	15	5.93	1.223	0.04	0.4%
		Post	15	5.97	0.972		
(P)	Control	Pre	15	5.70	1.474	0.27	3.0%
		Post	15	5.97	1.077		
(GRA)	Control	Pre	15	5.80	1.236	0.07	0.8%
		Post	15	5.87	1.125		
Overall	Control	Pre	15	5.82	1.292	0.11	1.2%
		Post	15	5.93	1.011		
(FC)	Experimental	Pre	15	6.00	0.945	0.70	7.8%
		Post	15	6.70	0.727		
(LR)	Experimental	Pre	15	6.07	0.961	0.66	7.3%
		Post	15	6.73	0.863		
(P)	Experimental	Pre	15	5.97	1.093	0.76	8.4%
		Post	15	6.73	0.704		
(GRA)	Experimental	Pre	15	5.97	1.172	0.80	8.9%
		Post	15	6.77	0.678		
Overall	Experimental	Pre	15	6.00	0.960	0.74	8.2%
		Post	15	6.74	0.676		

Note. **FC**: Fluency and Coherence; **LR**: Lexical Resources; **P**: pronunciation; **GRA**: Grammatical Range and Accuracy.

Table 3 shows that the highest improvement rate for the experimental group students in developing English speaking skills was (8.9%) in favor of grammatical range and accuracy, and the lowest improvement rate was (7.3%) in favor of lexical resources. In general, the improvement rate is considered high. Although the improvement rate in lexical resources was the lowest, it is a good improvement compared to the control group. The results of this study are consistent with Munawir et al. (2022) and Rinaepi and Azi (2022) who found that modern technology applications including ELSA App helped students improve sentence structures and vocabulary diversity. The highest improvement rate for the control group students in developing English speaking skills was (3.0%) in favor of pronunciation, and the lowest improvement rate was (0.4%) in favor of lexical resources.

Considering the above-mentioned percentages, in general these results indicate that the improvement rate of Saudi students in the control group, without being affected by any factors or stimuli, was low for students in pronunciation and lexical resources in the pre-test and even the improvement in the post-test was negligible. On the other hand, the improvement rate of Saudi students in the experimental group is very high and this is after the students were affected by the application of ELSA, their English-speaking skills improved.

Looking at the results of the first research question, the analyses of pre- and post-test scores showed an improvement in the English-speaking skills of the experimental group, compared to the control group, after receiving immediate corrective from ELSA App on the speaking sub-skills of pronunciation, grammatical range, and accuracy for seven weeks. This is consistent with the findings of Permatasari and Lubis (2024), which suggest that ELSA App had a positive effect in helping participants improve their speaking skills, as it provided participating students with an accurate reference to correct errors in pronunciation, grammatical range and accuracy.

The analyses of the second research question results showed an improvement in the English-speaking skills of the experimental group after receiving feedback from ELSA App on the speaking sub-skills lexical resources, fluency and cohesion. These results are consistent with the findings of Kusmaryani et al. (2019). This indicates that ELSA App had a tangible and positive effect in improving the lexical resources, fluency and cohesion of the students in the experimental group. It provided them with diverse vocabulary and ideas that in turn improved the flow and coherence of ideas and speaking for a longer time without hesitation or long pauses or spending time searching for the appropriate word while speaking.

Overall, the researcher concluded that the rate of improvement in pronunciation, grammatical range and accuracy of the Saudi students in the control group, without being influenced by any factors or stimuli, in the pre- and post-speaking test was low while the improvement rate in the experimental group was high. In other words, after conducting the experiment and the students being influenced by ELSA App, their English-speaking skills improved in terms of pronunciation, grammatical range in the post-speaking test.

The improvement in English speaking skills of Saudi students who used ELSA App can be linked to several explanations. First, based on the analyses of students' scores in the pre- and post-speaking tests, this improvement can be linked to the students' language level and previous language background. Most of the students who participated in the experiment had an intermediate language level, meaning they had the basics of the English language but needed to develop and improve their speaking skills, especially pronunciation, fluency and sequencing. This is evident from the students' pre-speaking test scores; their scores were not high, but at the same time they were not low. This result is consistent with the results of Cisneros (2023), which revealed that all students who used ELSA App were at the second level of the university stage and their language level was intermediate, which helped them improve and develop their language level in speaking skills. The importance of the linguistic background and language level that ELSA App is suitable for was also indicated in another study by (Bonilla & De La Rosa, 2023), which concluded that ELSA App is more beneficial and achieves positive results with students whose language level is intermediate.

Another explanation that can be linked to the improvement in the speaking skills levels of Saudi students in the experimental group is that ELSA App is a self-learning tool, which in turn enhanced the students' feeling of comfort, independence, and lack of pressure in learning anywhere and at any time. So, they were able to learn from their mistakes that the application corrected for them, which enhanced the students' sense of responsibility. An additional explanation for the improvement in the students' level of speaking skills in English is that the application helped students to identify their mistakes and their types and provide immediate corrections, which in turn helped the students to recognize their mistakes and increase their awareness and remedy them the next time (Fakdawer, 2020; Bonilla & De La Rosa, 2023; Cisneros, 2023; Agustina & Fatmawati, 2024).

For the third question which was about the differences between the control and experimental groups in developing English speaking aspects: pronunciation, grammatical range and accuracy, lexical resources, fluency and cohesion. The researcher used the Shapiro-Wilk test to verify the normal distribution of the scores of the control and experimental groups in the pre and posttest, Table 4 shows the results. Also, Levene's Test for Equality of Variances was used to verify homogeneity for scores variance of the control and experimental groups. Table 5 shows the results. Moreover, the Independent Samples T-Test was used to identify statistically significant differences between the average scores of the control and experimental groups in the pre- and post- test, Table 6 shows the results. Finally, Eta square (h^2) was used to measure the size of the effect of using ELSA App in developing the English-speaking skills of Saudi students, Table 7 shows the results.

Table 4. Results of the Shapiro-Wilk test for pre and posttest

The Test	Group	N	Shapiro-Wilk	
			Statistic	Sig.
Pre	Control	15	.947	.472
	Experimental	15	.918	.178
Post	Control	15	.924	.223
	Experimental	15	.933	.307

Looking at Table 4, the results show that the values of the Shapiro-Wilk test are not statistically significant for the scores of the control and experimental groups in the pre and post-test, as the significance levels are more significant than (0.05). This indicates that the scores of the control and experimental groups in the pre and post-test follow a normal distribution. After ensuring that the data is normally distributed, it is ready for the next step: checking its variance.

Table 5. Results of Levene's Test for Equality of Variances for pre- and post-test

The Test	F	Sig.
Pre	.345	.561
Post	2.232	.146

Looking at Table 6 the results show that the value of Levene's Test for Equality of Variances for the scores of the control and experimental groups in the pre and post-test is not statistically significant, as the significance level is more than (0.05). This indicates homogeneity of variance for the scores of the control and experimental groups for the pre- and post-test.

Table 6. Results of the t-test. In the pre-test (to measure equivalence) and in the post-test (to measure the effect)

Speaking skills	Group	Test	N	Mean	Std. Deviation	T	Sig
(FC)	Control	Pre	15	5.83	1.358	.390	.699
	Experimental		15	6.00	0.945		
(LR)	Control	Pre	15	5.93	1.223	.332	.742
	Experimental		15	6.07	0.961		
(P)	Control	Pre	15	5.70	1.474	.563	.578
	Experimental		15	5.97	1.093		
(GRA)	Control	Pre	15	5.80	1.236	.379	.708
	Experimental		15	5.97	1.172		
Overall	Control	Pre	15	5.82	1.292	.440	.664
	Experimental		15	6.00	0.960		
(FC)	Control	Post	15	5.90	1.089	2.366	.025
	Experimental		15	6.70	0.727		
(LR)	Control	Post	15	5.97	0.972	2.284	.030
	Experimental		15	6.73	0.863		
(P)	Control	Post	15	5.97	1.077	2.308	.029
	Experimental		15	6.73	0.704		
(GRA)	Control	Post	15	5.87	1.125	2.653	.013
	Experimental		15	6.77	0.678		
Overall	Control	Post	15	5.93	1.011	2.573	.016
	Experimental		15	6.74	0.676		

Note. **FC**: Fluency and Coherence; **LR**: Lexical Resources; **P**: pronunciation; **GRA**: Grammatical Range and Accuracy.

Looking at Table 6, regarding the score's equality, it's shows that there are no statistically significant differences at a significant level of less than (0.05) between the average scores of the control and experimental groups in the pre-test, as all t-test values are statistically non-significant values. This result indicates there is equality between the control and experimental groups in the pre-test. As for the post test, it's shows that there are statistically significant differences at a significance level of less than (0.05) between the average scores of the control and experimental groups in the post-test application, as all t-test values are statistically significant. These differences were in favour of the experimental group. The result indicates the effectiveness and positive impact of using ELSA App in developing English speaking skills, such as pronunciation, grammatical range and accuracy, lexical resources, fluency, and cohesion among Saudi students in the post-speaking test. The results of this study are consistent with the results of previous studies (Sholekhah & Fakhurriana, 2023; Samad & Ismail, 2020). Those who found that ELSA app effective in developing speaking skills, especially pronunciation, fluency and coherence. The chart below shows the results more accurately.

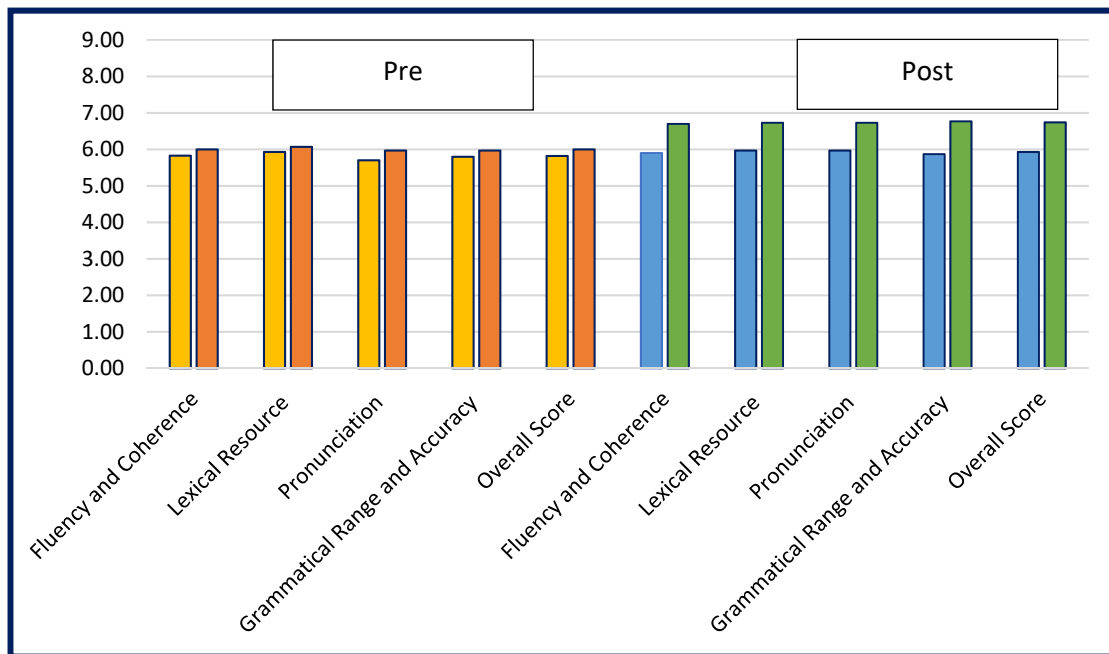


Figure 1. Averages scores for both groups in the pre- and post-test

The graph shows that there is a clear difference between the two groups and that it is in favor of the experimental group, as this difference means that there is a positive effect in using ELSA App and confirms the extent of its effectiveness in developing the English-speaking skills of Saudi students.

Table 7. Eta square results (h2)

No	Test	Post Mean (Control Group)	Post Mean (Experimental Group)	Eta Squared	Effect size
1	Fluency and Coherence	5.90	6.70	.167	High
2	Lexical Resource	5.97	6.73	.157	High
3	Pronunciation	5.97	6.73	.160	High
4	Grammatical Range and Accuracy	5.87	6.77	.201	High
5	Overall Score	5.93	6.74	.191	High

Table 7 clearly shows that all the Eta square values for the test were at the level (high effect size) according to Cohen’s classification (1988), which indicated that the effect size is high if the result is higher than the value (0.14). This result suggests a high effect size for using ELSA App to develop the English-speaking skills for Saudi students.

The analyses of the third research question results showed that after collecting and analyzing the data and comparing the scores of the pre- and post-speaking tests for each student, the scores for each group were collected and compared to each other. The researcher concluded that there were statistically significant differences between the control and the experimental group, and these differences were less than (0.05) between the average total scores between the groups. This difference was positive in favor of the experimental group, meaning that there is a positive effect of using ELSA App in developing English speaking skills and their aspects, i.e. pronunciation, fluency, grammatical range, accuracy, coherence and lexical resources among Saudi students.

The bottom line is that, based on these results, ELSA App was effective in developing the English-speaking skills of Saudi high school students in Saudi Arabia. This tallies with Munawir et al. (2022) results, indicating that ELSA App had a positive effect on improving students speaking skills since they used the app as a learning tool to help them to develop speaking skills rather than as a primary tool for learning to speak English. By contrast, the results of (Salsbil, 2023) is not consistent with the results of this study, which indicated that there was no improvement in students speaking skills, after integrating several technology applications, including ELSA App, into classrooms to develop English speaking skills. The researcher revealed that despite the high scores of students in the pre-speaking tests, the students’ actual level during speaking was weak.

The difference between the two groups, which showed a positive improvement in the levels of English-speaking skills among Saudi students who underwent the experiment, can be linked to several explanation. Based on the differences between the experimental and control groups and the resulting analysis of Saudi students' scores in the pre- and post-tests of speaking, this improvement can be linked to the practice opportunities provided by ELSA App to students. The application provided them with many opportunities to practice speaking on various topics, which contributed to improving students' speaking skills.

Most students who participated in the experiment had opportunities to practice speaking anytime and anywhere without restrictions to develop pronunciation, fluency, grammatical structures, and lexical resources. For example, one student remarked that "I loved that I could use the ELSA App at any time of the day. Whether I was at home or on the go, I could practice speaking and get feedback on my fluency and intonation, which made me more confident in my speaking abilities." This result is consistent with the results of Darsih et al. (2021), which revealed that all students who used ELSA App had great opportunities to practice speaking English outside the classroom, and that they achieved remarkable development due to their increased opportunities to practice, as speaking practice is one of the most important factors in enhancing language development, which helped them improve and develop their language level in speaking skills. Another study conducted by (Rismawati et al., 2021) indicated the necessity of practicing speaking English to develop it, and that ELSA App is one of the applications that provide the user with various opportunities to practice speaking. The study concluded that the App is more effective in practicing speaking, which in turn achieves tangible results in developing English speaking skills.

The fourth and last question was about the perspective of Saudi students towards ELSA App in developing English speaking aspects: pronunciation, grammatical range and accuracy, lexical resources, fluency and cohesion, a questionnaire was used to understand Saudi students' perspectives towards using ELSA App in developing aspects of English speaking. To answer this question, the researcher conducted a questionnaire consisting of ten closed questions and 7 open questions to investigate the students' perspectives on using ELSA App in developing speaking skills. For the closed-ended question the researcher used descriptive statistics, while in analyzing the open-ended questions, the researcher used content analysis by themes. The researcher previously identified 4 main themes derived from the research questions, and the fifth theme was later emerged from the data collected.

Table 8. Responses of Students' perspective towards ELSA App

No	Question	Mean	Std. Deviation	Percent
1	Speaking skills are essential in learning English.	3.60	1.121	72.0%
2	Speaking is an essential communication skill.	3.93	0.704	78.6%
3	ELSA application is a convenient tool for promoting my speaking performance.	3.60	0.828	72.0%
4	By using ELSA Application, I learn anytime and anywhere.	3.53	0.915	70.6%
5	ELSA Application corrects my mispronunciations immediately.	3.93	0.594	78.6%
6	ELSA Application helps me interact with online partners to study together.	3.33	0.900	66.6%
7	ELSA application provides low-pressure opportunities for me to practice speaking.	3.87	0.834	77.4%
8	By using ELSA Application, I learn new vocabulary by topic and then use it to speak immediately.	3.73	0.799	74.6%
9	ELSA Application provides authentic speaking materials.	3.80	1.207	76.0%
10	After finishing the course, I will use ELSA Application to improve my English skills.	4.33	0.724	86.6%

Table 8 shows that the highest response rate was in favor of question No. (10) at a percentage of (86.6%). It is clear from the students' responses that they intend to continue using ELSA App after the end of the experiment, and this was also confirmed by the students in the open questions, where one of the students expressed that "I have found the ELSA App to be an invaluable tool for improving my English. I definitely plan to keep using it even after the course ends to further develop my speaking abilities." This result is consistent with Elia and Wahyuningsih (2024), who found that ELSA App is effective and easy to use and has helped students by providing them with interactive resources that in turn have motivated them to continue without getting bored. It is expected that they will continue to do so as it provides them with continuous updates.

8. Qualitative Findings

8.1 Pronunciation

Most of the students' answers agreed that ELSA App was effective and helped them develop English pronunciation. It provided them with multiple and varied audio clips, enabling them to listen to sounds repeatedly. Taking

advantage of the automatic pronunciation correction feature provided by ELSA App, it helped students distinguish between the phonemes of sounds that may lead to distraction for listeners if they are pronounced incorrectly, for example the minimal pairs leave (long /i:/ sound) vs live (short /ɪ/ sound).

It also allowed them to record their voices and compare them with the original voice, which helped them improve the quality of their pronunciation. One student remarked that, “My vowel pronunciation was often unclear, making it difficult for people to understand me at times. The app identified that my pronunciation needed improvement. By following the app’s guidance and practicing consistently, my vowel sounds have become much clearer, and I now feel more confident during conversations.” The results of the study are consistent with Munawir et al. (2022), Lebecker (2019), who found that ELSA App is effective in developing pronunciation, especially vowels letters, which are challenging for students. The application was also effective in helping students set goals they wish to reach and determine the period for practicing regularly so that the application sends them reminder notifications to enter and practice developing pronunciation and reaching their goal. For example, one student mentioned that “I set a goal to practice for 15 minutes every day, The app sent me daily reminders to practice, and I could track my progress.”

In addition, the pronunciation dictionary provided more than thousands of words or phrases that users could click on, hear more than once, and imitate correctly at any time without being restricted to specific topics. This result is consistent with Bonilla et al. (2023), who found that ELSA App provided students with and more than 1200 lessons plus more than 60 diverse topics to practice speaking English. Most of the students’ answers emphasized the extent to which they benefited from the instant feedback provided by ELSA app to improve and correct their pronunciation in real time. For example, one student said that: “I love how ELSA app gives me feedback on my pronunciation. For example, I had difficulty with the word ‘comfortable,’ and ELSA indicated that I was stressing the incorrect syllable. It provided practice until I perfected it. Now, I can say ‘comfortable’ with confidence, thanks to ELSA.”

8.2 Grammatical Range and Accuracy

Most students agreed during that ELSA App was effective in developing grammatical range and accuracy while speaking English. It provided them with many sentences and phrases in various tenses and structures in a simplified manner while speaking. The app provided them with many simple sentences with coordinating conjunctions. In addition, some of the students expressed that ELSA App provided them with automatic correction of grammatical errors while speaking. For example, one student mentioned that the app helped her in the sentence structure in the past tense by providing her with the correct form of the verb, instead of saying “I attend classes last week [*sic*]” to the correct verb regular form in past tense “I attended classes last week”. These results consistent with Lebecker (2019), who found that ELSA App provide distinctive feature for students to develop grammatical range and accuracy and providing alternatives and suggestions appropriate to the time and context of sentences.

Also, the students were able to use both short, simple sentences and long, complex sentences to express their experience comfortably and switch between the passive voice and the active voice. For example, student was able to switch between the passive voice to the active voice:

“ELSA App was used by my friend during her free time.” – This is in the passive voice because the object (ELSA App) is now the subject of the sentence, and the action (was used) is being performed by the agent (my friend). To, “My friend used ELSA App during her free time.” – This is in the active voice because the subject (my friend) is performing the action (used) on the object (ELSA App).

In addition, ELSA App helped the students develop different grammatical structures (Lebecker, 2019). The researcher noticed that the students were able to talk and express their experience and use several different grammatical structures to describe their experience.

8.3 Lexical Resources

The researcher noticed that students were able to choose the appropriate words and phrases flexibly and fluently to convey the intended message and express their experiences comfortably without making errors in the proper context. These results are consistent with Kusmaryani et al. (2019), who found that ELSA App is effective in developing students’ fluency by providing a variety of vocabulary that improves their fluency. Even when they did not find the right word or were not sure about the correct language to use, they kept trying to explain what they were trying to say and used phrases like this, “It’s a kind of” and “It’s a way of”. They also used diverse vocabularies, and they were able to switch between synonyms and used antonyms effectively. For example, “calm” and “peaceful” – “total” and “entire” – for antonyms “Reward” and “punishment”.

Most of students expressed that ELSA app provided them with a variety of collocations and idiomatic expressions

and enhanced them to practice them consistently for example, one student mentioned that “I loved how the ELSA App incorporated idiomatic expressions into the lessons”. It made learning English more interesting and practical. These results are consistent with Teixeira (2015), who found that the variety of collocations and idiomatic phrases provided by technological apps like ELSA are impressive and encouraged students to use these expressions in the right context, which improved their overall language skills.

In addition, technological apps like ELSA could help students to avoid repetitive vocabulary (Hassan et al., 2016). The researcher noticed that students were able to convey their message by using a wide range of vocabulary and less frequent words and redundancy.

8.4 Fluency and Cohesion

While speaking with the students during class time, most of them were able to speak for a long time without long pausing or hesitating about making a mistake or even spending a long time searching for an appropriate word. For example, one student mentioned that “Before using the ELSA App, I often struggled to find the right words and would pause frequently. Now, I can speak more smoothly and naturally in class, which has made participating in discussions much easier.” This result is consistent with Biancarosa and Shanley (2016), who found that technological apps like ELSA focus on fluency exercises which help students to overcome their fear of making mistakes and to speak more confidently which eventually improved their communication skills. Also, most of the students were organized in generating their ideas in a way that made it easy for the researcher to clearly and smoothly understand what they wanted to say.

8.5 Interactive Environment

Nine of the students’ comments about ELSA app experience were that it provided them with an interactive environment that was able to effectively transform the concept of traditional learning into E-learning and encourage students into it. For example, one student remarked, “the interactive exercises and instant feedback kept me motivated and eager to practice every day.” Through interesting topics, diverse vocabulary, flexible learning at any time and any place, automatic correction, automatic response, and correcting pronunciation was an interactive experience that motivated the students and increased their enthusiasm for learning and developing themselves and increase social interaction. These results consistent with Rinaepi and Azi, (2022), who found that the feature of adding a guest or colleague in the application and talking to other colleague develop students English speaking skills.

Considering the results of the fourth research question, ELSA App that resulted from the closed questionnaire revealed that students were aware of the importance of developing communication skills and that Saudi students who participated in the experiment had strong positive perceptions towards ELSA App and its impact on developing speaking skills. Most participants mentioned that ELSA App was easy to use at any time and place and helped them interact with their colleagues and they were satisfied with it. One participant remarked, “The app is incredibly simple to use, regardless of my location. It has greatly improved my ability to communicate with colleagues, and I am very satisfied with it.” Also, most of the students strongly agree that after finishing the course, they will use ELSA App to improve their English-speaking skills. For instance, one student shared, “I have found the ELSA App to be an invaluable tool for improving my English. I definitely plan to keep using it even after the course ends to further develop my speaking abilities.” These results confirm the findings of previous researchers (Anggraini, 2022; Hanna, et al., 2022; Dhivya et al., 2023), indicating high positive perceptions from students when using ELSA App.

The other part of the question was based on the qualitative analysis of the open-ended questionnaire questions. Most Saudi students expressed that the experience was enjoyable and added a lot to them in the world of Artificial Intelligence (AI). The application also helped them develop their English-speaking skills, through automatic pronunciation correction, improving fluency, and providing various grammatical structures and correct vocabulary for users. For example, one student shared, “The automatic pronunciation correction feature was a game-changer for me. It helped me improve my fluency and learn the correct grammatical structures and vocabulary effortlessly.” Another student commented, “I loved how the app provided instant feedback on my pronunciation and suggested better ways to phrase my sentences. It made learning English much more effective and enjoyable.” These results are consistent with the results of Permatasari and Lubis (2024), indicating that students enjoyed integrating technology into learning and that ELSA App was easy to use and they did not face any difficulty in using it.

Also, ELSA App helped them effectively to make their speech more convincing and confident without hesitation and building obstacles. Moreover, some students who used ELSA App mentioned that the App helped them to maintain the flow of the conversation by developing new, relevant ideas without jumping to unrelated topics. It is worth to mention that the students in the post-speaking test were able to move smoothly and fluently between

topics and open new topics to talk about in a logical structure without repeating themselves and, they were able to switch between synonyms and used antonyms effectively. These results are consistent with the results of Shulaikah and Fakhriyana (2023), who found that ELSA App provided students with an interactive experience and environment that helped them develop their fluency.

In addition, most of the students expressed that ELSA App provided them with a variety of collocations and idiomatic expressions and enhanced them to practice them consistently and it helped the students to develop different grammatical structures. For example, one student added, “The variety of expressions and grammatical structures provided by the app has significantly enriched my vocabulary and improved my overall language skills.” They were able to use multiple tenses to describe their performance before, during and after the experiment. ELSA App provided them with various tenses and structures in a simplified manner while speaking. The App was also effective in helping students set goals they wish to reach and determine the period for practicing regularly. Students also reported their satisfaction with the improvement they observed in their English-speaking skills and indicated their desire to use the application after completing the experiment later. The results of the current study are supported by other related studies Nabilah et al. (2024), who claimed that ELSA App has made a significant difference in EFL students English-speaking skills.

9. Conclusion, Pedagogical Implications and Recommendations

ELSA App was effective in developing Saudi students English-speaking skills as it contributed to creating an interactive environment that attracted students to continuously practice their speaking skills. Also, the App enhanced the learning environment, which in turn provided opportunities to explore new ways of learning the English language and students’ attitudes and tendencies in developing the English-speaking language.

After analyzing students’ scores of the pre- and post-speaking tests, it can be concluded that using ELSA App had a useful role in enhancing English speaking skills, and this can be inferred from their performance in the post-tests and the grades they obtained. Also, the App enhanced the students’ ability to deal with speaking tests, as it gave them similar examples of the test questions and trained them, so nothing new occurred to the students at the time of the actual test. These results are consistent with (Kusmaryani et al., 2019; Richard, 2015; Teixeira, 2015).

ELSA App can be used as an interactive educational tool to develop English speaking skills in the students’ learning journey. Also, Saudi learners can use ELSA App as an additional source for extracurricular activities to make the most of what has been learned in the classroom. Teachers and those interested in the field of teaching English as a foreign language are advised to benefit from ELSA App in developing methods for presenting their lessons and increasing student motivation.

Acknowledgments

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First Author : Raghad Theyab who responsible of conducting the manuscript

Second Author: who responsible of thesis supervision

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Appendix A

Speaking Test; Pre-test

Adopted from IELTS Speaking Test on Thursday, 04 May 2023

Part one:

Q1: Introduce yourself

Part two:

Q2: Describe some technology (e.g., an app, phone, software program) that you decided to stop using.

You should say:

- When and where you got this technology
- Why you started using this technology
- Why you decided to stop using it

and explain how you feel about the decision you made.

Use specific examples and details to support your opinion.

Part 3 - Details discussion:

Discussion topic: “**Computer games**”.

Q3. What kinds of computer games do your family play in your home?

Q4. Why do people enjoy playing computer games?

Q5: In what ways can technology in the classroom be helpful?

Speaking Test; Post-test

Part 1 - Introduction & Interview

- Q. When you go shopping, do you prefer to pay for things in cash or by card? [Why?]
- Q. Do you ever save money to buy special things? [Why/Why not?]
- Q. Would you ever take a job which had low pay? [Why/Why not?]
- Q. Would winning a lot of money make a big difference to your life? [Why/Why]

Part 2

[Describe an interesting discussion you had as part of your work or studies.

You should say:

- what the subject of the discussion was
- who you discussed the subject with
- what opinions were expressed
- and explain why you found the discussion interesting.

Part 3 - Detailed discussion:

Discussion topic: "Discussing problems with others"

- Q. Why is it good to discuss problems with other people?
- Q. Do you think that it's better to talk to friends and not family about problems?
- Q. Is it always a good idea to tell lots of people about a problem?

Appendix B

IELTS Speaking Band Descriptors

Band	Fluency and coherence	Lexical resource	Grammatical range and accuracy	Pronunciation
9	<ul style="list-style-type: none"> speaks fluently with only rare repetition or self-correction; any hesitation is content-related rather than to find words or grammar speaks coherently with fully appropriate cohesive features develops topics fully and appropriately 	<ul style="list-style-type: none"> uses vocabulary with full flexibility and precision in all topics uses idiomatic language naturally and accurately 	<ul style="list-style-type: none"> uses a full range of structures naturally and appropriately produces consistently accurate structures apart from 'slips' characteristic of native speakers' speech 	<ul style="list-style-type: none"> uses a full range of pronunciation features with precision and subtlety sustains flexible use of features throughout is effortless to understand
8	<ul style="list-style-type: none"> speaks fluently with only occasional repetition or self-correction; hesitation is usually content-related and only rarely to search for language develops topics coherently and appropriately 	<ul style="list-style-type: none"> uses a wide vocabulary resource readily and flexibly to convey precise meaning uses less common and idiomatic vocabulary skillfully, with occasional inaccuracies uses paraphrase effectively as required 	<ul style="list-style-type: none"> uses a wide range of structures flexibly produces a majority of error-free sentences with only very occasional inappropriacy or basic/non-systematic errors 	<ul style="list-style-type: none"> uses a wide range of pronunciation features sustains flexible use of features, with only occasional lapses is easy to understand throughout; L1 accent has minimal effect on intelligibility
7	<ul style="list-style-type: none"> speaks at length without noticeable effort or loss of coherence may demonstrate language-related hesitation at times, or some repetition and/or self-correction uses a range of connectives and discourse markers with some flexibility 	<ul style="list-style-type: none"> uses vocabulary resource flexibly to discuss a variety of topics uses some less common and idiomatic vocabulary and shows some awareness of style and collocation, with some inappropriate choices uses paraphrase effectively 	<ul style="list-style-type: none"> uses a range of complex structures with some flexibility frequently produces error-free sentences, though some grammatical mistakes persist 	<ul style="list-style-type: none"> shows all the positive features of Band 6 and some, but not all, of the positive features of Band 8
6	<ul style="list-style-type: none"> is willing to speak at length, though may lose coherence at times due to occasional repetition, self-correction or hesitation uses a range of connectives and discourse markers but not always appropriately 	<ul style="list-style-type: none"> has a wide enough vocabulary to discuss topics at length and make meaning clear in spite of inappropriacy generally, paraphrases successfully 	<ul style="list-style-type: none"> uses a mix of simple and complex structures, but with limited flexibility may make frequent mistakes with complex structures though these rarely cause comprehension problems 	<ul style="list-style-type: none"> uses a range of pronunciation features with mixed control shows some effective use of features but this is not sustained can generally be understood throughout, though mispronunciation of individual words or sounds reduces clarity at times
5	<ul style="list-style-type: none"> usually maintains flow of speech but uses repetition, self-correction and/or slow speech to keep going may over-use certain connectives and discourse markers produces simple speech fluently, but more complex communication causes fluency problems 	<ul style="list-style-type: none"> manages to talk about familiar and unfamiliar topics but uses vocabulary with limited flexibility attempts to use paraphrase but with mixed success 	<ul style="list-style-type: none"> produces basic sentence forms with reasonable accuracy uses a limited range of more complex structures, but these usually contain errors and may cause some comprehension problems 	<ul style="list-style-type: none"> shows all the positive features of Band 4 and some, but not all, of the positive features of Band 6
4	<ul style="list-style-type: none"> cannot respond without noticeable pauses and may speak slowly, with frequent repetition and self-correction links basic sentences but with repetitious use of simple connectives and some breakdowns in coherence 	<ul style="list-style-type: none"> is able to talk about familiar topics but can only convey basic meaning on unfamiliar topics and makes frequent errors in word choice rarely attempts paraphrase 	<ul style="list-style-type: none"> produces basic sentence forms and some correct simple sentences but subordinate structures are rare errors are frequent and may lead to misunderstanding 	<ul style="list-style-type: none"> uses a limited range of pronunciation features attempts to control features but lapses are frequent mispronunciations are frequent and cause some difficulty for the listener
3	<ul style="list-style-type: none"> speaks with long pauses has limited ability to link simple sentences gives only simple responses and is frequently unable to convey basic message 	<ul style="list-style-type: none"> uses simple vocabulary to convey personal information has insufficient vocabulary for less familiar topics 	<ul style="list-style-type: none"> attempts basic sentence forms but with limited success, or relies on apparently memorized utterances makes numerous errors except in memorized expressions 	<ul style="list-style-type: none"> shows some of the features of Band 2 and some, but not all, of the positive features of Band 4
2	<ul style="list-style-type: none"> pauses lengthily before most words little communication possible 	<ul style="list-style-type: none"> only produces isolated words or memorized utterances 	<ul style="list-style-type: none"> cannot produce basic sentence forms 	<ul style="list-style-type: none"> Speech is often unintelligible
1	<ul style="list-style-type: none"> no communication possible no ratable language 			
0	<ul style="list-style-type: none"> does not attend 			

Figure 1. IELTS is jointly owned by the British Council, IDP: IELTS Australia and Cambridge English Language Assessment

Appendix C

A questionnaire to measure students impressions

1	Speaking skills are one of the essential skills in learning English:	<ul style="list-style-type: none"> • Strongly disagree • Disagree • Neither agree nor disagree • Agree • Strongly agree
2	Speaking is an essential communication skill:	<ul style="list-style-type: none"> • Strongly disagree • Disagree • Neither agree nor disagree • Agree • Strongly agree
3	ELSA application is a convenient tool for promoting my speaking performance in general:	<ul style="list-style-type: none"> • Strongly disagree • Disagree • Neither agree nor disagree • Agree • Strongly agree
4	By using ELSA application, I learn anytime, anywhere:	<ul style="list-style-type: none"> • Strongly disagree • Disagree • Neither agree nor disagree • Agree • Strongly agree
5	ELSA application detects my mispronunciations and corrects them immediately:	<ul style="list-style-type: none"> • Strongly disagree • Disagree • Neither agree nor disagree • Agree • Strongly agree
6	ELSA application helps me interact with online partners to study together.	<ul style="list-style-type: none"> • Strongly disagree • Disagree • Neither agree nor disagree • Agree • Strongly agree
7	ELSA application provides low-pressure opportunities for me to practice speaking:	<ul style="list-style-type: none"> • Strongly disagree • Disagree • Neither agree nor disagree • Agree • Strongly agree
8	By using ELSA App, I learn new vocabulary by topic and then use it to speak immediately:	<ul style="list-style-type: none"> • Strongly disagree • Disagree • Neither agree nor disagree • Agree • Strongly agree
9	ELSA application provides authentic speaking materials:	<ul style="list-style-type: none"> • Strongly disagree • Disagree • Neither agree nor disagree • Agree • Strongly agree
10	I will use ELSA application after finishing the course to improve my English-speaking skills:	<ul style="list-style-type: none"> • Strongly disagree • Disagree • Neither agree nor disagree • Agree • Strongly agree

Note. Questionnaire adapted from (Abugohar, et al., 2019; Nguyen & Vo, 2021) final version after modification (deletion- addition)

Open-ended questions (self-build)

11. How was your experience using the ELSA app to develop English speaking skills?
12. What is your point of view towards using the ELSA application to develop English speaking skills?
13. What challenges do you have in speaking after using the ELSA application?

14. How did the ELSA application help you develop English speaking skills, such as pronunciation, grammatical range, accuracy, lexical resources, fluency and cohesion?
15. To what extent is ELSA application practical, easy to use, and provides a comfortable, pressure-free interactive environment while practising speaking English?
16. Can you describe a specific feature of the ELSA app that significantly improved your English-speaking skills?
17. How often and how long do you use the ELSA app each week?

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