

THE USE OF ELSA SPEAK IN SPEAKING SKILLS OF NON-ENGLISH MAJORS: EFFECTS AND CHALLENGES

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ARTICLE INFO		ABSTRACT
Received:	03/11/2025	One of the difficulties faced by students learning English as a foreign language is the absence of real English environments to practice, resulting in a lack of language fluency and motivation to speak. Recent developments of artificial intelligence have shown considerable potential for enhancing students' speaking performance. Therefore, this study aims to investigate the impacts of English Language Speech Assistant Speak app on the speaking abilities of non-English sophomores and their challenges in using this tool. An 8-week experiment was conducted with 60 non-English sophomores to collect quantitative data from a pre-test and post-test, and a questionnaire. The results demonstrated that English Language Speech Assistant Speak has positive impacts on students' speaking skills, especially pronunciation, and intonation. However, some drawbacks and limitations to utilizing this artificial intelligence tool include technological difficulties, the requirement for increased human engagement, and the lack of understanding of cultural elements or slang. Students believed that artificial intelligence might not take the place of human language teachers but rather be used as a supportive tool in speaking classes. The findings practically help students have more motivation to practice speaking English outside of class. Additionally, the results offer helpful suggestions on how educators might include artificial intelligence tools in their lesson plans.
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KEYWORDS		
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ỨNG DỤNG ELSA SPEAK TRONG VIỆC HỌC KỸ NĂNG NÓI CỦA SINH VIÊN KHÔNG CHUYÊN: HIỆU QUẢ VÀ KHÓ KHĂN

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THÔNG TIN BÀI BÁO		TÓM TẮT
Ngày nhận bài:	03/11/2025	Một trong những khó khăn mà sinh viên học tiếng Anh như một ngoại ngữ gặp phải là thiếu môi trường thực hành tiếng Anh, dẫn đến việc hạn chế về độ lưu loát ngôn ngữ và động lực để nói. Những phát triển gần đây của trí tuệ nhân tạo đã cho thấy tiềm năng đáng kể trong việc nâng cao hiệu suất nói của sinh viên. Do đó, nghiên cứu này nhằm mục đích tìm hiểu tác động của ứng dụng học tiếng Anh giao tiếp ELSA Speak đến khả năng nói của sinh viên không chuyên ngữ năm hai và những thách thức của họ khi sử dụng công cụ này. 60 sinh viên tham gia vào trải nghiệm sử dụng ứng dụng học tiếng Anh giao tiếp ELSA Speak trong 8 tuần, trong đó dữ liệu định lượng được thu thập từ bài kiểm tra trước và sau cùng với bảng câu hỏi khảo sát. Kết quả cho thấy ứng dụng học tiếng Anh giao tiếp ELSA Speak có tác động tích cực đến kỹ năng nói của sinh viên, đặc biệt là phát âm và ngữ điệu. Tuy nhiên, một số hạn chế khi sử dụng công cụ trí tuệ nhân tạo này bao gồm khó khăn về công nghệ, yêu cầu tăng cường sự tham gia của con người và thiếu hiểu biết về các yếu tố văn hóa hoặc tiếng lóng. Phần lớn sinh viên tin rằng trí tuệ nhân tạo có thể không thay thế giáo viên ngôn ngữ mà chỉ được sử dụng như một công cụ hỗ trợ trong các lớp học nói. Những phát hiện này góp phần khuyến khích sinh viên có thêm động lực để luyện tập nói tiếng Anh bên ngoài lớp học, đồng thời cung cấp những gợi ý thiết thực cho giảng viên trong việc tích hợp trí tuệ nhân tạo vào giảng dạy tiếng Anh.
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1. Introduction

In contemporary society, proficient speaking is necessary for effective communication. According to Tamala and Santosa [1], speaking skills are considered one of the most practical and significant skills since they can be used in conversations, workplaces, and other situations. However, mastering speaking skills seems challenging for many language learners. Tran [2] noted that “the English proficiency of the majority of university students and graduates are quite disappointing - they do not appear to be confident with their English. Many of them cannot communicate in a simple English interaction” [2, p.139]. Various factors have been demonstrated to impact the quality of teaching English as foreign language (EFL) at universities including teacher’s use of unengaging teaching methods [3]; inadequate time allocated for communicative activities; excessive class sizes [4]; diverse competency levels among students [2], [4]. At the current research site, lecturers have also been experiencing these challenges, which have further hindered the development of students’ effective speaking skills. To address these problems, effective learning strategies and appropriate learning tools should be identified to help students learn better. One potential solution is to integrate modern technology into teaching.

With advanced technology, especially the appearance of artificial intelligence (AI), thousands of mobile applications are made to support learners’ processes and enhance their performances. One app that gets great attention from individuals is ELSA (English Language Speech Assistant). With ELSA Speak, students may access a plethora of videos, easily adaptable materials, regular assessments, and daily revision tasks. ELSA Speak uses AI technology that is most noticeable in how well it can detect voices. A microphone icon has been added to ELSA Speak so that students can practice as though they have listened to the audio. Then, this app will also evaluate English speaking skills using the speech analyzer. The application analyzes users’ pronunciation, intonation, fluency, vocabulary, and grammar and provides corrective feedback. In addition, the strategies, activities, and systematic design of the program can create an effective learning platform for students, and the application naturally encourages student participation and interaction [5].

The most dominant advantage of ELSA Speak is pronunciation improvement [6], [7]. The application provides immediate, detailed feedback on key phonetic features, including articulation, stress patterns, and intonation. Taqy [8] found that ELSA Speak significantly supported pronunciation, covering vowel and consonant sounds, diphthongs, word stress and intonation for the students of English who had already used the application for the minimum time of one month. For Vietnamese learners, who frequently encountered difficulties with English suprasegmental and segmental features, especially with final consonant sounds [9], ELSA’s feedback system proves particularly helpful.

Research by Le and Phan reveals that after using ELSA Speak, students feel more confident when speaking English and begin to have a more proactive learning attitude [10]. In addition, the application offers a wide range of exercises that allow learners to practice vocabulary and grammar structures, thereby enhancing their speaking ability [10].

Kholis [6] indicates that students’ voice recordings are promptly processed by the system, which provides corrective feedback to enhance their pronunciation accuracy. This process also helps students expand their English vocabulary. Kholis [6] also elaborates that the features offered by the ELSA Speak app empower students to independently discover a wide range of English vocabulary and phrases in their native form. Moreover, the app equips learners with valuable tools for improving communication skills, engaging in self-directed learning, and refining their speech. These functionalities allow students to deepen their understanding of English grammar.

However, the app also has limitations that should be considered. One problem of AI is the accuracy of speech recognition. AI tools have not yet attained reliability in recognising non-standard accents, which will lead to inaccurate or incomplete feedback [11], [12]. This will be a problem to EFL learners, like Vietnamese students who have less access to a real-English speaking environment. Another limitation of AI tools refers to the pertinence of the content.

While these platforms provide a diverse array of themes for practice, not all of them correspond to the particular academic requirements and curricula of students [13]. Although ELSA speak has proved to help users learn new vocabulary, it does not significantly expand their vocabulary level and their ability in real-life conversations because the interactions in the app were quite rigid and the content was quite similar [10]. Therefore, this finding is consistent with Nguyen's study on the impact of ELSA Speak on students in Vietnam and their perceptions of the app [9].

In general, while prior research has examined the effects of AI tools such as ELSA Speak in enhancing aspects of English-speaking skills including pronunciation, fluency, vocabulary, and grammar, there are still deficiencies in comprehending their performance in particular contexts. Most of the existing research has concentrated on general improvements in speaking skills, but there is limited empirical evidence on how non-English majored students in countries like Vietnam engage with such tools over an extended period and the specific challenges they face. This current study aims to investigate the effects of ELSA Speak on non-English majors' speaking skills and figure out challenges while using this tool.

2. Method

2.1. Participants

A total of 60 non-English sophomores were randomly selected to investigate the improvement of their speaking skills after using the AI tool, ELSA Speak for an 8-week period. These participants were sophomore students who are majoring in different fields at Tra Vinh University. They all have similar curricula of General English 3 and academic learning environments as well.

2.2. Instruments

To collect the data for the study, the researchers employed a pre-test, a post-test, and a questionnaire. The pre-test includes 7 discussion questions about clothes. Similarly, the post-test includes 8 questions about recreational activities. In both tests, participants were required to express their opinions in complete sentences.

The questionnaire adapted from the instruments developed by Le and Phan [10] has 2 parts. Part 1 gathers the demographic and personal information of the participants. Part 2 examines the perceptions of students' challenges when using the application. A five-point Likert scale, ranging from strongly disagree (1), disagree (2), neutral (3), agree (4) to strongly agree (5) was used for students to respond to all the statements in the questionnaire.

2.3. Analysis Procedure

Sixty participants from 2 classes were randomly chosen from non-English major classes and briefed on the purpose of the study as well as the procedures for using relevant features of the ELSA Speak application. Thirty students in the first class (experimental group) completed a speaking test before and after using ELSA Speak in order to measure improvement, followed by a questionnaire. The other 30 students assigned to the control group did the same pre-test and post-test without using ELSA Speak. After the researchers developed speaking tests and a questionnaire for self-assessment on challenges, pilot tests were given to ensure clarity and test reliability and validity.

Table 1. A detailed plan for the intervention of using ELSA Speak

Lessons	Intervention activities
Lesson 1	Personalized pronunciation practice begins; students follow core pronunciation lessons in ELSA Speak.
Lesson 2	Topic-based speaking (<i>Friends</i>); students record a short talk and receive pronunciation feedback from ELSA Speak.
Lesson 3	Quick-response speaking (<i>Family</i>); students practice short dialogues using ELSA Speak.
Lesson 4	Quick-response speaking (<i>Food & Drink</i>); students complete dialogue tasks and review ELSA analysis results.
Lesson 5	Topic speaking (<i>Travel</i>) + quick-response practice (<i>Hobbies</i>); students record short talks and complete rapid speaking tasks in ELSA Speak.

The researchers scheduled the pre-test session and had the students complete the test individually with a speech analyzer of the app. Then the results were collected in Excel files. Students in the experimental group were guided to use ELSA Speak. Table 1 shows a detailed plan for the intervention of using ELSA Speak.

After 8 weeks, the students in both groups also did a post-test in a similar procedure of the pre-test. Both the pre-test and post-test were evaluated using the ELSA Speak scoring system which generates an overall score and five analytic subscores: pronunciation, intonation, fluency, grammar, and vocabulary. Each subscore ranges from 0 to 100, with corresponding proficiency bands (e.g., Beginner, Basic, Lower Intermediate, Intermediate, Upper Intermediate). The platform also provides predicted speaking-test equivalents (IELTS, TOFEL, CEFR, PTE, TOEIC), allowing for standardized interpretation of students' results.

The questionnaire was designed on Google Forms. The researchers compiled all the test scores, and responses from the students of the experimental group to analyze the data using SPSS statistics 20.

3. Findings and discussion

3.1. Findings

3.1.1. The results from the pre-test and the post-test

Table 2. Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
PRE-TEST	experimental	30	50.30	7.16866	1.30881
	control	30	50.63	6.14471	1.12187
POST-TEST	experimental	30	63.67	11.59171	2.11635
	control	30	53.87	8.05470	1.47058

Table 2 illustrates the mean scores of the pre-test and the post-test of both groups. The mean scores of the pre-tests are very close, indicating that there are almost no differences in students' speaking abilities between the two groups. However, the students in the experimental group demonstrated a significant improvement in their performance, with the mean score increasing from 50.30 in the pre-test to 63.67 in the post-test, resulting in a gain of 13.37 points compared with an increase of only 3.24 points for those in the control group. This suggests that the use of ELSA Speak in experimental groups was effective in enhancing their scores. Besides, there is greater variability in students' performance after using ELSA Speak compared to those who do not use the app, which suggests that the effectiveness of ELSA Speak on each student is not similar.

Table 3. Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	Pre-test control - Post-test control	-2.45804	-3.426	29	0.002
Pair 2	Pretest experimental - Posttest experimental	-11.64944	-6.957	29	0.000

Table 3 presents the results of paired samples test to show mean score differences between the pre-test and post-test in both 2 groups (Group experimental - pair 2, Group control - pair 1). As can be seen, the difference between the pre-test and post-test scores of group control (pair 1) is significant ($t = -3.426$, $df = 29$, $p = 0.002$), showing a modest improvement in speaking skills. However, participants in the experimental group experienced a greater difference in the scores of the pretest and the posttest ($t = -6.957$, $df = 29$, $p = 0.000$). This significant improvement confirms that ELSA Speak is beneficial for users' speaking skills.

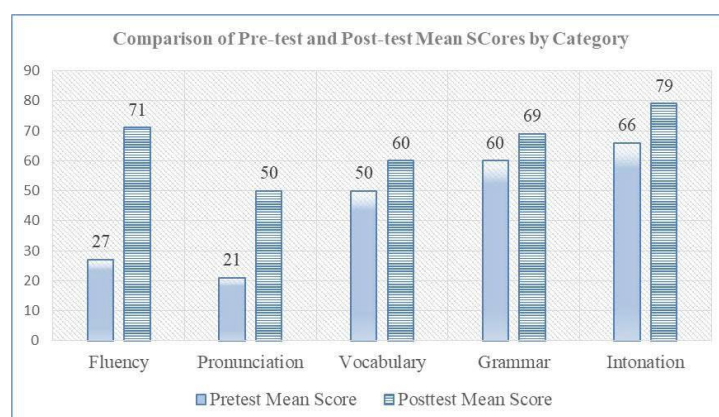


Figure 1. Descriptive Statistics for Experimental group

Figure 1 shows the results of the pre-test and post-test from the participants who used ELSA Speak. The descriptive statistics reveal the key findings across several specific categories in speaking skills for 30 students. The most significant improvement in speaking was found in fluency with an increase of nearly 44 points. This was followed by pronunciation, which increased from 21 to 50. The other categories also experienced a modest improvement. These findings indicate that the app can effectively develop students' speaking skills, especially in pronunciation and fluency.

3.1.2. The results from the questionnaire

Table 4. Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.773	0.770	12

Table 4 illustrates the reliability analysis measuring the reliability coefficient of the questionnaire for the participants' challenges with ELSA Speak. With a Cronbach's Alpha of 0.773, 12 items in the questionnaire are reliable for measuring the intended construct across the 60-case dataset.

Table 5. Descriptive Statistics for the Questionnaire

	N	Mean	Std. Deviation
Q1. The app content is rather similar to the others.	30	3.67	0.85
Q2. The app does not respond to learners' needs.	30	3.37	1.02
Q3. The app lacks human interaction (emotions, body language, etc.).	30	4.05	0.87
Q4. The app has limited ability to understand cultural nuances.	30	3.91	0.91
Q5. The app has limited ability to recognize local accents.	30	3.60	0.89
Q6. The app has limited ability to identify errors compared to teachers' feedback.	30	3.57	0.97
Q7. The app has some limitations related to Internet access.	30	4.11	0.67
Q8. The app lacks visual support.	30	3.56	0.97
Q9. The app requires a quiet environment for effective recording.	30	4.07	0.83
Q10. The app does not offer users opportunities to practice higher-level thinking skills.	30	3.47	0.96
Q11. The app is sometimes not user-friendly.	30	3.46	0.85
Q12. Besides these points, are there any other difficulties you have encountered when using Elsa Speak?	30		
Valid N (listwise)	30		

Table 5 shows descriptive statistics results from 30 participants, focusing on the perceived challenges when using the ELSA application. The mean scores across 12 items are from 3.37 to 4.11 indicating that students generally perceive the app positively; however, some aspects such as human interaction (Q3), and technical accessibility issues (Q7), (Q9) can be found challenging. Specifically, the mean score of human interaction ($M = 4.05$, $SD = 0.87$) is relatively high, so this can be an issue for learners who benefit from personal engagement and feedback in language learning.

Limitations related to Internet access got the highest-rated item with the lowest variation ($M = 4.11$, $SD = 0.67$) showing a consistent concern regarding reliance on Internet access, which can disrupt the learning experience for users with inconsistent connectivity. Participants also pointed out that they prefer a quiet environment when using the app, as reflected in the score ($M = 4.07$, $SD = 0.83$).

In summary, the large improvement in speaking scores in the experimental group suggests that the intervention was beneficial for enhancing students' speaking skills. It can be also concluded that while ELSA Speak serves as a useful tool for foundational language practice, there's room for improvement including increasing interactive features and making the app more adaptable to better meet the diverse needs of its users.

3.2. Discussion

3.2.1. The impacts of ELSA Speak on the students' speaking abilities

The results from the pre-test and the post-test of the experimental group show that the participants could improve their speaking skills after using ELSA Speak. Among them, improvement in pronunciation and fluency is the most noticeable. This can further suggest that the app has the potential to assist students to deal with difficulties related to phonetics such as final consonant sounds. This is in line with the results of prior studies [6] - [8], which emphasize the strengths of ELSA Speak in offering users targeted feedback on pronunciation. Furthermore, the app also can help the students reduce hesitation in order to develop continuity in speech. This finding aligns with the findings in other studies in Vietnam [9], [10]. These researchers conclude that ELSA Speak can help learners to reduce their speaking anxiety, so they become more confident and fluent in speaking English. Overall, the application seems to be a promising learning tool for improving pronunciation and fluency.

The slight improvement in vocabulary and grammar indicates that users should employ it as a comprehension tool to practice speaking skills. Additionally, these small improvements in these categories suggest that while the app is effective, its main benefit lies in oral production, not linguistic complexity.

3.2.2. Learners' challenges when using the app

Regarding learners' challenges when using ELSA Speak, most of their barriers lie in technology and the learning environment. In fact, when students use the app in an environment which is not quite enough, it can lead to misunderstanding and wrong feedback. This aligns with previous studies [11], [12]. Those highlighted one problem of AI is the accuracy of speech recognition. It is not reliable for AI tools to recognize non-standard accents, which can lead to inaccurate or incomplete feedback. Besides, the students also found the app's model examples were not enough to learn, and in some cases, it has problems understanding cultural elements or slang. This finding is in line with the results of previous study [13]. These people agreed that not all lessons meet the particular academic requirements and curricula of students.

4. Conclusion

The results of this research reaffirm the potential of using AI tools to improve EFL learners' speaking skills. Learners can take advantage of a variety of exercises and immediate feedback from the app to improve their pronunciation and fluency. However, the learners' response reveals

the app's limitations, including technology, environment, and lack of human interaction. This suggests that learners use a blended learning approach combining the strengths of AI tools and human instruction.

The research findings suggest that teachers not only develop their learners' AI literacy but also introduce and integrate more AI tools such as ELSA Speak in lessons and practice exercises in line with students' needs to help students better at their speaking skills. Future researchers should consider investigating the long-term effects of AI tools such as Elsa Speak on speaking proficiency as well as investigating the effects of Elsa speak on students' learning motivation and anxiety. Another interesting direction to do research is to examine how these apps can impact receptive skills such as reading and listening skills.

In summary, although ELSA Speak can help students to enhance their speaking skills, especially in pronunciation and fluency, it should be used as a supplementary tool rather than a standalone solution.

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