"I am annoyed": of the Digital Feedback Feature on the ELSA Speak Application

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Abstract

Pronunciation plays a crucial role in effective communication, yet it can be difficult for non-native English speakers due to the complexities of articulating English words. The wide range and complexity of English vowel sounds frequently pose significant challenges for learners. Nevertheless, technological improvements provide useful resources for enhancing English pronunciation, with applications like ELSA Speak serving as effective tools for students to fine-tune their pronunciation skills. This study sought to explore the experiences of undergraduate students with the digital feedback offered by ELSA Speak in relation to pronunciation learning, utilizing a qualitative descriptive methodology. The research was organized around a qualitative descriptive framework and incorporated thematic analysis, featuring a sample of three undergraduate students from the University of Jember. Findings from the data revealed that students encountered diverse experiences with the digital feedback functionality of ELSA Speak, which included instruction on accurate word pronunciation and the provision of instant feedback regarding their pronunciation efforts. Additionally, this digital feedback mechanism offered students three primary types of exercises: pronunciation, intonation, and conversation practice, thereby facilitating enhanced learning and improvement in their pronunciation skills. However, students had issues with the free version of ELSA Speak, claiming the inability to use certain activities due to the obligation to pay for access to the premium edition.

Keywords: Artificial intelligence, ELSA Speak application, Digital Feedback, Experience, Pronunciation

Introduction

Pronunciation constitutes a critical component of effective communication and poses significant challenges for non-native English speakers engaged in language acquisition. Inaccurate pronunciation can result in adverse perceptions, misinterpretations, and hindered communication (Rismawati, 2021). Purba (2018) asserts that mastering English pronunciation is complex; it extends beyond merely articulating words correctly. The intricacies of English pronunciation arise from the fact that the written form of certain words often diverges from their spoken counterparts, reflecting the language's inherent complexity. Furthermore, Rafael (2019) emphasizes that neglecting pronunciation can lead to varied interpretations of meaning between speakers and listeners. Misunderstandings frequently stem from incorrect or imprecise pronunciation. These perspectives underscore the pivotal role of pronunciation in ensuring the speaker's communicative accuracy.

Pronunciation proficiency is an essential component of language acquisition, significantly influencing a learner's ability to communicate effectively and be understood by others. Mastering pronunciation not only enhances clarity in speech but also boosts

the learner's confidence in using the language in various contexts, whether in casual conversations, academic settings, or professional environments. As learners strive to achieve fluency, the importance of accurate pronunciation cannot be overstated, as it directly impacts their ability to convey meaning and engage in meaningful interactions.

In recent years, technological advancements have revolutionized the way language learners approach the challenge of improving their pronunciation skills. A plethora of digital resources and applications have emerged, providing innovative tools and techniques to support learners in their quest for better pronunciation. One particularly noteworthy application in this realm is ELSA Speak, which stands out for its comprehensive approach to pronunciation practice. ELSA Speak utilizes sophisticated algorithms and artificial intelligence to offer personalized feedback on pronunciation, allowing learners to identify specific areas for improvement. The application features a vast library of pronunciation examples from native speakers, enabling users to hear and mimic authentic speech patterns. Moreover, ELSA Speak encourages active engagement through interactive practice sessions. Learners can participate in various exercises designed to target specific sounds, intonation patterns, and rhythm, all of which are crucial for achieving natural-sounding speech. By leveraging the capabilities of ELSA Speak, students are empowered to take control of their own learning journeys. They can set personal goals, track their progress, and adapt their practice routines to meet their individual needs. This autonomy is particularly important in today's fast-paced and everchanging world, where effective communication skills are paramount for success in both personal and professional spheres.

The researchers recognized that a substantial body of literature exists concerning students' experiences with the ELSA Speak application for pronunciation learning. Previous studies have indicated that students perceive the ELSA Speak app as both engaging and motivating, facilitating continuous study efforts. Consequently, students are able to actively participate in their learning process and derive greater motivation from utilizing the ELSA Speak application (Darsih & Asikin, 2020; Saragih et al., 2021; Kholis, 2021; Bashori et al., 2021; Winzky & Aswir, 2022).

Despite the numerous investigations into students' perceptions of ELSA Speak for pronunciation enhancement, there remains a gap in research specifically addressing undergraduate students' experiences with the digital feedback feature, which was the primary focus of this study. This research employed a descriptive qualitative design to thoroughly explore the experiences of undergraduate students regarding the digital feedback component. The results of this study concluded that a) students felt satisfied with their ELSA Speak learning experience and improved their ability to pronounce words in daily speech by giving them accurate and detailed feedback, b) students had mixed experiences regarding their feelings when using the app, i.e., good and bad feelings when corrected by the digital feedback, and c) in order to get unlimited access, they must pay by subscribing to ELSA Premium.

Literature Review

Artificial intelligence (AI) is a significant outcome of the Society 5.0 paradigm. Often referred to as machine intelligence, AI encompasses the capacity of machines to exhibit intelligent behaviour, contrasting with the natural intelligence found in humans and other living beings. According to Budiharto (2018), AI represents the methodology for endowing machines, particularly computer programs, with intelligence akin to that of humans. This intelligence allows computers to tackle complex problems by emulating human thought processes. For a computer to function similarly to a human, it must be

equipped with knowledge acquired through training and possess the capability for rational thought. A notable application of artificial intelligence in education is automatic speech recognition (ASR), a technology that allows users to interact with computers through voice commands. One prominent example of ASR technology is the ELSA Speak application, which emerged in 2015 and aligns with the principles of Industry 4.0. In contrast, Society 5.0 was officially introduced on January 21, 2019, as a strategic response to the challenges posed by Industry 4.0.

A prior investigation into students' perceptions of the ELSA Speak application within pronunciation classes was conducted by Samad and Aminullah (2019). They asserted that ELSA Speak serves as an excellent tool for students to practice their pronunciation. The authors highlighted the application's strengths in content design, assessment flexibility, multimedia integration, and automatic speech recognition capabilities. Additionally, they noted its effectiveness in pedagogical design, particularly praising the automatic speech recognition feature, which provides prompt feedback on users' pronunciation.

The consensus among educators is that feedback plays a crucial role in enhancing learning outcomes; however, there remains ongoing discussion regarding the optimal types and methods of feedback delivery, particularly as new technologies emerge to facilitate teaching and learning, including feedback mechanisms. Teachers often face difficulties in providing feedback that is not only accurate and comprehensible but also timely and effective, which is essential for fostering student improvement (Plews, 2017). A variety of technology-driven tools exist for delivering feedback to learners, collectively referred to as digital feedback. The primary objective of digital feedback is to identify and rectify errors made by English as a Foreign Language (EFL) students in a digital format. It is imperative for educators who instruct students in oral communication skills to offer corrective feedback to prevent the recurrence of systematic errors in the target language being learned (Rismawati, 2021). The ELSA Speak application serves as a resource for students to learn the correct pronunciation of words, including vowels, diphthongs, and consonants, while also providing guidance on word stress through its digital feedback functionality.

The learning experience involves acquiring knowledge through various interactions in educational settings, influenced by instructional methods, study practices, support services, and facilities. Learning can occur in both formal and informal contexts, but many informal experiences often go unrecognized and unintegrated into formal education (Ammigan et al., 2021; Ceballos, 2021). Designing effective learning experiences is challenging for educators, especially those used to traditional teaching methods, as student disengagement is common. Hudori (2017) noted that true learning occurs when students can express creativity and stay motivated through engaging activities like role-playing and simulations. To date, there appears to be a lack of research focused on the experiences of undergraduate students utilizing the digital feedback feature of the ELSA Speak application. Recognizing a notable gap in the literature regarding the application's role in enhancing pronunciation skills, the researchers aimed to investigate the experiences of undergraduate students with the digital feedback provided by ELSA Speak in their pronunciation learning journey. **Research Method**

This study was carried out within the English Education Department at a public university located in East Java province. The selection of this institution was intentional, based on preliminary observations indicating that students had utilized the ELSA Speak application as part of a course module. The subjects involved in this study were undergraduate students who had utilized the ELSA Speak application for pronunciation learning. Specifically, the sample consisted of three female Indonesian EFL undergraduate students, who were assigned pseudonyms: Rose, Jasmine, and Daisy. These individuals were purposefully chosen due to their familiarity with the digital feedback provided by ELSA Speak in the context of English pronunciation acquisition. The researchers aimed to identify participants who met specific qualifications relevant to the research topic. The criteria for selecting the undergraduate students included: (1) active enrolment in English studies; (2) prior experience with the ELSA Speak application as a resource for English pronunciation; and (3) proficiency in navigating the various features of the ELSA Speak application. Consequently, the characteristics of these participants aligned well with the established selection criteria.

In the current study, the researchers employed interviews as a primary method for data collection. Specifically, a semi-structured interview format was utilized, allowing participants to respond to open-ended questions. A total of 15 questions were posed to the selected participants regarding their experiences with the digital feedback feature of the ELSA Speak application. Following the interviews, which were conducted in Bahasa Indonesia, the data was translated and transcribed into English. The use of the participants' native language during the interviews aimed to enhance their understanding of the questions and to elicit comprehensive responses for the interviewer.

The data collected from the interviews were subjected to thematic analysis. This analytical approach serves to identify, explore, categorize, describe, and present themes that emerge from a given data set (Braun & Clarke, 2006). The findings from this analysis were intended to address the research question: "What are the undergraduate students' experiences of utilizing digital feedback from the ELSA Speak application in their English pronunciation learning process?"

Research Findings

To explore the experiences of undergraduate students regarding digital feedback on ELSA Speak, the researchers conducted semi-structured interviews with three undergraduate students majoring in English Education at a university in East Java. The analysis of the findings was performed through thematic analysis as outlined by Braun and Clarke (2006), resulting in the identification of three key themes. The data presented below illustrates these findings.

Themes	Sub-themes
Students' Opinions Using the Digital	The Benefits of the Digital Feedback for Students
Feedback on ELSA Speak	Students' Impressions of the Digital Feedback
	Students' Feelings While Using the Digital
Students' Feelings Using the Digital	Feedback
Feedback on ELSA Speak	Students' Expectations After Using the Digital
	Feedback

Table 1. Research themes and sub-themes

Students' Challenge Using the Digital Feedback on ELSA Speak	The Limitation of ELSA Speak Free Version
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Students' Opinions Using the Digital Feedback on ELSA Speak

Based on interviews, students using the digital feedback feature on ELSA Speak expressed two distinct opinions. The first was that digital feedback provided benefits, including teaching students the precise pronunciation of words and providing immediate feedback in word pronunciation. All of the students reported that the digital feedback feature helps them improve their English pronunciation. Following those statements, they described how the benefits of digital feedback are:

"Now I have a better understanding of if my pronunciation is correct. Also, it looks attractive, so youngsters who use it can learn while having fun, and it is also easy to operate." (Rose, June 9th, 2024)

Rose's opinion shows that the digital feedback in ELSA Speak helped her understand proper word pronunciation. She added that the interface was appealing, allowing new English learners to learn with joy.

Not only helped them to understand better, this application is unique because it has the digital feedback in the form of audio rather than just text that can result in a good and precise result of the correct word. Jasmine said:

"Oh a lot, for example my pronunciation became better when I used this application. This application is different from others because it has a feedback feature that corrects if we say a word incorrectly, resulting in good and precise results; also, the form is in audio rather than just writing." (Jasmine, June 9th, 2024)

Even more, Daisy agreed with Rose and Jasmine's opinions. She stated that digital feedback gave various benefits to her to learn English pronunciation. She said:

"There are several benefits that I feel when using this application, the first is we actually know how to pronounce a word in English. Because we know ourselves, English pronunciation is not as strict as its writing and each letter is also different in the way it is pronounced. So here we can find out about it, and also we get feedback from the application on how we pronounce it." (Daisy, June 10th, 2024)

The excerpts above implied that the digital feedback was helpful for undergraduate students, specifically the respondents, in understanding English pronunciation. Therefore, in a pronunciation-learning situation, ELSA Speak needs to be used to improve the correct pronunciation of a word.

Drawing on the interviews about the second sub-theme, students' impressions of the digital feedback, these students explained that they have favourable impressions. They were satisfied with the digital feedback because it was accurate enough to tell them how they were doing and corrected it immediately. It was also more helpful and detailed in providing feedback than other English learning applications. In accordance with what they said below:

"Good. This application is accurate enough to know how I am doing and correct it right away. Also, the explanation in this application with the explanation of the

lecturer that I heard on campus is more or less the same. So it's pretty accurate." (Rose, June 9th, 2024)

From Rose's opinion, this application was doing a good job by giving her immediate feedback. She said that the explanation given by this application was similar to what her lecturer told her about the correct pronunciation.

Another student, Jasmine, revealed her agreement by saying that this application was brilliant because it was accurate in giving feedback. She also mentioned that it was because the developer is from a native English country. She said:

"My impression when I used it for the first time was that it was a brilliant application called ELSA Speak that can correct pronunciation and also teach us the right pronunciation. I also think that the feedback from this application is accurate, because the developer of this application comes from native English country. So yeah, I think it is accurate" (Jasmine, June 9th, 2024)

While these two students showed favourable impressions without criticism and suggestions, Daisy revealed that she was satisfied with the application, but she could not use all the levels due to her free user access. Then she suggested that it should be used in a quiet place so that the voice could be recorded clearly. As she said:

"Very satisfying, although I couldn't try all the levels because I had to pay to unlock them, but overall it was very helpful. Also, compared to other English learning apps, this app is more detailed when giving feedback. But I think the feedback will be accurate if our conditions when using it are quiet, because if it's in a crowded place, it will record other voices." (Daisy, June 10th, 2024)

From the excerpts above, it can be implied that every student reported feeling satisfied with their ELSA Speak learning experience and that it had improved their ability to pronounce words in daily speech by giving them accurate and detailed feedback. Moreover, in a pronunciation-learning situation, ELSA Speak needs to be used to improve the correct pronunciation of a word.

Students' Feelings Using the Digital Feedback on ELSA Speak

The second theme was concerned with the students' feelings when using the digital feedback feature, and it was divided into two sub-themes. The first sub-theme, which was based on the interviews, discussed how students felt about using digital feedback. The following is evident from the statements of the students:

"As for the feeling, I am annoyed that what I thought and the pronunciation that I have known turns out to be wrong sometimes. 'Oh it turns out there are a lot of mistakes too' like that." (Rose, June 9th, 2024)

From her statement, Rose felt annoyed by the correctness of the digital feedback because sometimes she made more mistakes when she tried the application.

"I never felt sad, I just accepted it. If the application said wrong, I think it's wrong and very appropriate with my pronunciation skills." (Jasmine, June 9th, 2024)

In contrast to Jasmine's statement, she said that she never felt sad when corrected by the digital feedback feature. She often accepted that what she said was not right and should be corrected by this feature.

"I've actually felt a little bit annoyed, but I thought 'oh maybe it's me who is lacking', so when I repeated it again 'oh it's already right', so yeah." (Daisy, June 10th, 2024)

Daisy's opinion was similar to Rose's. She felt a little annoyed because it turned out that her pronunciation was wrong and was confirmed by the digital feedback. However, she was annoyed with herself rather than the feature due to her inability to pronounce the word correctly.

Regarding the second sub-theme, relating to students' expectations after using the digital feedback, every student concurred that they have great expectations for using digital feedback to help them with their pronunciation. As demonstrated by the students' statement:

"It helps, I think it's enough, because the digital feedback lets me know where my pronunciation mistakes are, it's explained there." (Rose, June 9th, 2024)

From Rose's statement, it can be seen that she felt quite helped by digital feedback because she was told and explained where she went wrong in pronouncing a word.

"It was very helpful, because at that time I was taking the speaking subject, so I felt that after using this application and there was feedback, it was very helpful in my lecture. I understood the correct pronunciation." (Jasmine, June 9th, 2024)

Jasmine also agreed that the digital feedback really helped her in her studies because she had to take a speaking course, and the effect was that she knew how to pronounce it correctly.

"It's very helpful, because there are very visible mistakes when pronouncing one of the letters. I mean just one letter is visible, red, then what should be correct is told. And there is one more feature that we can directly interact, the conversation is not written, so there is a topic, what are we talking about, later we respond and it responds back immediately. So, very good." (Daisy, June 10th, 2024)

In line with the other two students' statements, Daisy also found the digital feedback feature very helpful. According to her, the way to correct pronunciation errors was very detailed, meaning that even one word error could be identified by giving a red colour to the wrong word and immediately being told to be corrected.

From the students' statements, it is implied that the students had mixed experiences regarding their feelings when using the app, i.e., good and bad feelings when corrected by the digital feedback. Only one student expressed acceptance, and the other two students felt annoyed when corrected by this application. Also, they found that the digital feedback aligned with their expectations to improve their pronunciation ability by giving them accurate and detailed feedback.

Students' Challenge Using the Digital Feedback on ELSA Speak

It was discovered that students encountered one challenge when utilizing the digital feedback feature that was the ELSA Speak free version's limitations. The fact that users must pay to access additional exercises in the premium version of ELSA Speak implies that the free version of the application has limitations. The following is evident from the statements of the students:

"For the weaknesses of the ELSA Speak application, sometimes there are some exercises that require us to pay first to be able to use." (Rose, June 9th, 2024)

Rose expressed her disappointment with the free version by stating that the application's flaw was that she couldn't use certain exercises since she had to pay to access the premium version.

In line with Rose's claims, Jasmine was unable to access plenty of ELSA pronunciation exercises since she did not pay to unlock the ELSA premium. As she stated below:

"Oh yeah, I haven't tried paying for this app either, so the downside is that if we don't pay to unlock ELSA premium, we can't access it." (Jasmine, June 9th, 2024)

"The downside is that access for free users is limited and I have never tried paying or unlocking by paying. There are limits or the term in the game may have lives. Because I am a free user, so there is a limit of 5 lives if I'm not mistaken." (Daisy, June 10th, 2024)

Daisy, the third student, voiced her displeasure by claiming that there are life limits of up to five, similar to those in a game when using the free version of ELSA Speak, and concluded that she shares other students' statements that the drawback of this application is the restricted access for free users.

From the previous excerpts, it can be determined that the ELSA Speak free version has limitations, such as the inability to complete extra pronunciation exercises. The three students explained that in order to get unlimited access, they had to pay by activating ELSA Premium.

According to the results of the interviews, the students believed that the digital feedback feature was excellent for helping them pronounce words correctly in English. They were convinced that audio correction, rather than text, was highly exact and detailed in fixing their pronunciation errors. Furthermore, they agreed that this feature had exceeded their expectations because it helped them rectify mispronounced words by highlighting the specifics of the error and placing a red mark on the phrase. Added to that, the students conveyed their dissatisfaction with the free version of ELSA Speak, citing the inability to utilize certain exercises due to the requirement to pay for access to the premium version.

Discussion

The previously discussed findings revealed various student experiences with digital feedback. These experiences were categorized based on the results of each research theme. The first theme focused on Students' Opinions Regarding the Use of Digital Feedback on ELSA Speak; the second theme addressed Students' Emotions Associated with the Use of Digital Feedback on ELSA Speak; and the final theme examined Students' Challenges Encountered While Utilizing Digital Feedback on ELSA Speak.

The findings related to the first theme, "Students' Opinions Using the Digital Feedback on ELSA Speak," indicated that all participants noted an enhancement in their pronunciation skills when utilizing the digital feedback provided by ELSA Speak. This observation corroborated Obilor's (2019) assertion that feedback is instrumental in helping students realize their full potential across various stages of learning, as it enhances their understanding of both their strengths and areas for improvement, while also outlining necessary actions for advancement. The digital feedback feature of the ELSA Speak application significantly influenced the students' experiences in mastering accurate pronunciation. The application functions as an indirect learning resource, allowing students to independently refine their pronunciation abilities. This aligns with Duerden and Witt's (2010) definition of indirect learning, which describes a process where students gain new knowledge autonomously by transforming or generating new material into meaningful responses or actions. Furthermore, students acknowledged numerous

advantages of using ELSA Speak for pronunciation practice, including the acquisition of correct word pronunciations, the provision of immediate feedback, and the appealing design of the application, which enhanced their enjoyment while learning English. This supports the findings of Samad & Aminullah (2019), who explained that ELSA Speak is an excellent tool for students to practice pronunciation, highlighting its strengths in content design, assessment flexibility, multimedia integration, and automatic speech recognition. Additionally, students expressed positive sentiments regarding the digital feedback feature, noting their satisfaction with its accuracy in assessing their performance and providing prompt corrections. They found it to be more beneficial and detailed in its feedback compared to other English learning applications. This aligns with the research conducted by Saragih et al. (2021), which indicates that ELSA Speak provides ample opportunities for practice with the emphasized target sound, allowing learners to receive corrective feedback on mispronounced words. Consequently, all students reported a high level of satisfaction with the digital feedback functionality, noting that it significantly contributed to enhancing their pronunciation skills in everyday conversation.

In accordance with the findings from the second research theme, "Students' Feelings Using the Digital Feedback on ELSA Speak," students exhibited a range of emotions in response to the corrections provided by the digital feedback feature. A significant number expressed mild frustration regarding the persistent identification of pronunciation errors, despite their diligent efforts to articulate the words or sentences presented during the pronunciation exercises within the ELSA Speak application. Conversely, one student acknowledged her limitations in pronunciation proficiency and accepted the necessity of correction through this digital feedback mechanism. This finding aligns with Saleh's (2019) assertion that AI products possess problem-solving capabilities, akin to the role of digital feedback. Regarding students' expectations following their engagement with the digital feedback, they perceived it as effective in addressing their pronunciation errors. The feedback was delivered in both textual and auditory formats to enhance students' understanding of correct pronunciation. This approach is consistent with Plews (2017), who emphasized that feedback must be accurate, clear, and delivered promptly to facilitate learning. Furthermore, the digital feedback feature offered three primary types of exercises-pronunciation, intonation, and conversation training—enabling the students to further refine their pronunciation skills. During pronunciation exercises, students articulate the suggested word or phrase to receive color-coded feedback for each phoneme, along with phonetic guidance for error correction. As noted by Nushi and Sadeghi (2021), red letters signify incorrect pronunciations, yellow letters indicate sounds that deviate from the native model and may be improved, while green letters denote accurately pronounced sounds.

The findings related to the theme "Students' Challenges Using Digital Feedback on ELSA Speak" indicated a consensus among participants regarding the difficulties encountered while utilizing ELSA Speak. Each student expressed similar sentiments, highlighting the constraints of the free version, particularly its lack of additional pronunciation exercises. Three students noted that to gain unrestricted access, a subscription to ELSA Premium would be necessary. However, there was a reluctance among students to allocate funds for a single educational application. This aligns with the research conducted by Nushi and Sadeghi (2021), which suggests that the ELSA Premium edition does not offer significant enhancements compared to the free version; the primary difference lies in the availability of more exercises. Furthermore, the free content provided by ELSA is limited, and the cost of the premium version may be prohibitive for some users. Additionally, the application sometimes struggles to accurately capture a student's voice, necessitating use in a quiet environment to ensure clear audio recording.

Conclusion

The current investigation revealed that undergraduate students engaged extensively with the digital feedback feature of the ELSA Speak application. Participants expressed that the application was enjoyable to use. They perceived the digital feedback as both precise and comprehensive in addressing their pronunciation mistakes, with corrections provided in both textual and auditory formats, thereby facilitating a thorough understanding of the correct pronunciation. Moreover, the digital feedback feature encompasses three primary types of exercises: pronunciation, intonation, and conversation practice, which significantly aid students in enhancing their pronunciation skills. Nonetheless, students encountered challenges with the free version of ELSA Speak, particularly the limitation of access to certain exercises that necessitate payment for the premium version. In conclusion, all students reported satisfaction with the learning experience offered by ELSA Speak. However, due to the restricted access to free trials, students may consider upgrading to the ELSA Pro package for additional features or creating new accounts for complimentary access. Future researchers interested in similar studies are encouraged to explore other functionalities of ELSA Speak using diverse research methodologies and participant groups. Furthermore, as this study did not assess the effectiveness of the digital feedback feature, subsequent research should aim to evaluate its impact on English language learning.

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