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The Perception of Using ELSA Speak Application to Improve Speaking Skills of Informatics Students

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ABSTRACT

The development of technology can be beneficial for both lecturers to support the teaching and students in language learning progress. Artificial Intelligence has gained particular attention in language instruction these days. It served as a useful addition to language instruction, particularly when it came to teaching pronunciation. Informatics students at a university in Riau had a lack of pronunciation, especially in pronouncing things about computers in English. Because of that reason, the researcher helped them to find a suitable application that could improve their pronunciation ability. The purpose of this study was to explore the way students learn speaking through mobile application use in the Informatics Engineering Department at a university in Riau and to know their perception of using ELSA Speak as an Automatic Speech Recognition application. Quantitative methods were used to measure the percentage of students' perceptions after using the ELSA Speak application.

Keywords: technology, artificial intelligence, automatic speech recognition, ELSA Speak

1. INTRODUCTION

The rapid development of technology has opened up an attractive and convenient new arena for language learning (Ahn, 2016). By using the mobile phone, there are many potential advantages in language learning. Using a variety of applications to learn a language in a variety of contexts, such as educational institutions, the workplace, homes, and on the go, as well as entertainment options that promote learning broadly and involve language acquisition, all work together to facilitate language learning more convenient whenever and wherever it occurs. To encourage students to feel more individualism and independence

along the process of teaching and learning English, universities must simultaneously make the process more effective.

One of the applications that is based on artificial intelligence and could be installed on the smartphone is ELSA Speak. This application recognizes someone's pronunciation or speech. Automatic speech recognition as a part of Mobile Assisted Language Learning makes the learning and teaching process easier. Students do not always have to study a second language in a classroom. They may have the opportunity to learn it using mobile devices when they desire and where they are.

Nowadays, almost all university students have access to the Internet on their hands and so does fourth-grade informatics students at a university in Riau. They can all access the internet via the smartphones they own. They ought to use the internet to their advantage. It is also the lecturers' responsibility to guide their students toward responsible Internet use. Introducing children to the sources of applications they can use as media to learn English is one method. When the researcher, who was also their lecturer, advised the students to use this application to practice pronouncing words correctly in English, it was evident that they were excited. The urgency of this research is that informatics students should be capable in English speaking, especially pronunciation. Pronunciation affects students' speaking ability and it related to the production and reception of sounds that are different each other (Stevani, Priono & Daulay, 2023).

Yet, there is no scientific data that shows the students' opinions towards the ELSA Speak app. Therefore, this research is designed to investigate their perception. This is important to do considering that the result would influence the teaching and learning of the pronunciation practice.

The problem in the Informatics Department at a university in Riau is that there are still many students who lack of vocabulary mastery and having difficulties in speaking skills. So, the researcher recommends the ELSA Speak application which is enjoyable to use and hopefully will enhance their pronunciation abilities. Furthermore, it is assumed that students are capable of learning on their own.

For the researcher, it is expected that this research can be a good way to enhance her professionalism in teaching as a lecturer. English language learning benefited from the use of smartphones (Klimova, 2018; Haerazi, Utama, & Hidayatullah, 2020). In another research, Ouyang and Wu (2016) study demonstrated that college students who were taught via an app did noticeably better in vocabulary learning than those who were not. Speech

recognition technology, often known as speech-to-text or voice recognition, enables voice to function as the "primary interface between the human and the computer" (Carrier, 2012).

Technology has been utilized to both support and improve language acquisition in recent years. Teachers use technology in a variety of ways to enhance their instruction, include students in the process, give real-world examples of the culture they are teaching about, and establish connections between their classrooms. To further improve the language learning process, teachers can modify homework assignments and classroom activities in addition to offering differentiated instruction thanks to certain technological solutions. Technology is also becoming a more valuable tool for foreign language instructors to help support and mediate language acquisition for their students.

Artificial intelligence is a software or application that has some characteristics, in this case, capable of predicting and adapting, making decisions on its own, and allowing people to consider how to analyze data and integrate information (Mohammed, 2019).

Automatic speech recognition is a part of artificial intelligence. The support of artificial intelligence technology, the automatic speech recognition system has also advanced from being "unusable" to "available," demonstrating excellent development possibilities and a very high application value. Furthermore, the early attempts to employ Automatic Speech Recognition (ASR) for language acquisition yielded inconsistent results, mostly because native speaker systems were used for other reasons, such as dictation (Ngadiso, 2023).

ELSA Speak is one of the applications that is based on artificial intelligence which has automatic speech recognition in running its application. ELSA has many features that give feedback and grade the quality of writing in just seconds (Widyasari, 2023). ELSA Speak is always affordable and accessible. Users only need to aim to practice as much as they can each day on their laptop or Android phone (Zakiyyah, et.al., 2022).

The previous study was conducted by the previous researcher. Kholis (2021) used Classroom Action Research and concluded that students' achievement in sounding words was greatly increased. It meant that the ELSA Speak app could support the students in improving their pronunciation. The ease was obtained by the students.

Stevani (2023) did the research and the result was students agree that ELSA Speak uses automatic speech recognition to provide feedback directly on the user's pronunciation and allows the user to imitate sounds. Students also agree that ELSA Speak has high flexibility of use because it can be installed on various types of devices such as laptops,

tablets and smartphones. Students also agree that by using ELSA Speak, students can increase their independence in learning.

Akhmad, Nur Wahid (2022) conducted the research using pre-experimental design. He used pre-test, treatment, questionnaire, and post-test. The result showed that the use of the ELSA Speak application has a significant effect. There was a significant improvement in students' pronunciation after the ELSA Speak was treated. Silaen and Rangkuti (2021) conducted the research and show the result that the ELSA Speak App is a useful application to use in learning pronunciation in Mixed Learning during the Covid-19 pandemic. Rinaepi (2022) did the research using a random sampling technique. The result showed that Elsa Speak application learning media can increase student attitude and motivation because it uses interesting features as well as fairly easy to use via smartphones, besides that Elsa Speak is also able to improve student attitudes because it uses a theory that suits the needs of students.

2. RESEARCH METHOD

The present research was mostly carried out applying a quantitative approach, whereas data regarding the participants' opinions regarding the implementation of automatic speech recognition were gathered through a survey instrument. Furthermore, the study was bolstered by qualitative data obtained from individuals who were interviewed and asked open-ended questions to get across their thoughts. The participants for this study originally included 60 informatics students at a university in Riau in Pekanbaru, Indonesia. Questionnaires were distributed in September 2023. The participants were third and fourth grade students which consists of females (41.67%) and males (58.30%). The participants' mobile device ownership and usage, in addition to the options they utilized for speaking instruction, were questioned to gain further insight into the sample.

Open-ended interview questions and a self-report questionnaire were employed as study instruments. The survey was divided into two sections. The participants' basic demographic data (gender, age, and GPA) was gathered in the first part, and the Mobile Learning Perception Scale (MLPS) was added in the second.

The purpose of this study was to explore the use of mobile devices by informatics students and their perceptions. To meet this goal, the researcher asked about their habit of mobile devices in learning speaking purposes. Analysis commenced with a demographic

profile study on the student's given age range, gender split, and attained English level. Abstracted from the full research study is Table 1 below showing the gender split with comments whom 35 students were male and 25 students were female:

Table 1. Respondents by Gender

Variable		Percent	Valid Percent
Valid	Male	58.33	58.33
	Female	41.67	41.67
	Total	100	100

The table below is showing the responds by age:

Table 2. Respondents by Age

Variable		Percent	Valid Percent
Valid	19-22 years old	67	67
	>23 years old	33	33
	Total	100	100

40 students were between 19-22 years old and 20 students were above 23 years old.

The table below is showing the responds by lasts GPA:

Table 3. Respondents by last GPA

Variable		Percent	Valid Percent
Valid	3.00-3.50	83.3	83.3
	>3.50	16.7	16.7
	Total	100	100

10 students had GPA ranging between 3.00-3.50 and 50 students had a high GPA (above 3.50). The students were asked about their way of learning speaking and finally, the researcher made a classification based on the result of using the ELSA Application as Automatic Speech Recognition. The classification is shown in the table below:

Table 4. Classification of Speaking Skill

Score (Percentage)	Score Classification	Category
80-100	High	Very Skilled
61-79	Moderate	Skilled
51-60	Low	Low skill
<=50	Low	Unskilled

The table above shows the categorization of students' level of speaking skill based on the scores they got after using the ELSA Speak application. For those who got below 50 will be determined as 'unskilled'. For those who got scores between 51-60 will be determined as 'Low Skill'. For students who got 61-79 will be categorized as 'skilled'. Finally, for those who got above 80 categorized as 'very high skilled'.

3. RESULTS AND ANALYSIS

3.1. Result

After categorizing the students based on their demography, the researcher made an open-ended questionnaire about how the students learned speaking during this time. The chart below is simplified to conclude the students' answers.

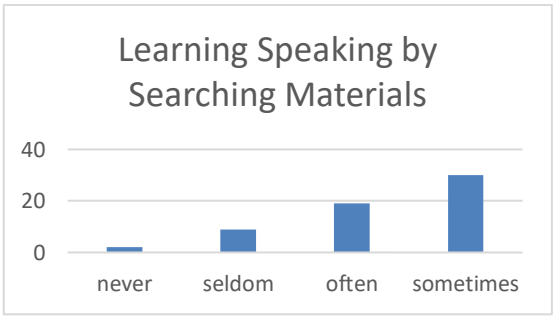

Figure1. Learning Speaking by Searching Materials

From the figure above, we might conclude that almost 40% of students learn speaking by searching materials on the internet.

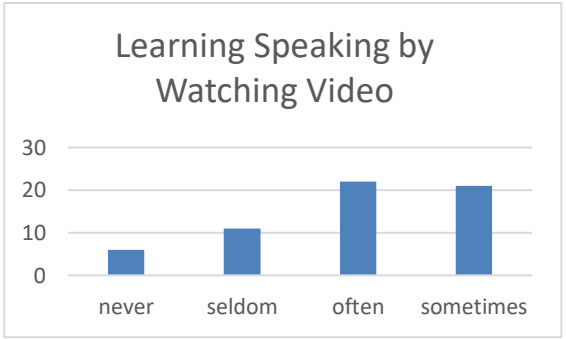

Figure 2. Learning Speaking by Watching Video

For about 20% of students learn speaking by watching video such as through YouTube and social media. They said that they do it often and some others said that they do it sometimes.

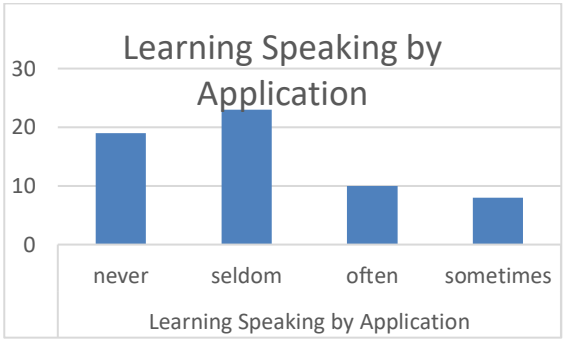

Figure 3. Learning Speaking by Application

More than 20% students said that they try to learn speaking by using application. In this case, the researcher introduced ELSA Speak application in order to help them learning speaking skills, especially pronunciation. The picture below shows about the dashboard view of ELSA application.

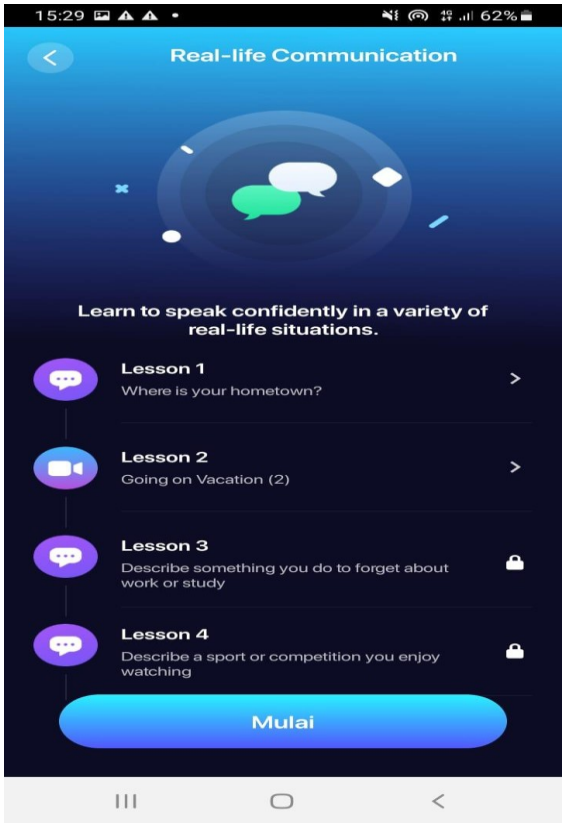

Figure 4. ELSA Speak Application

The picture above shows the variety of lessons that students choose. The students follow the steps of the application, and they will see the result in the end.

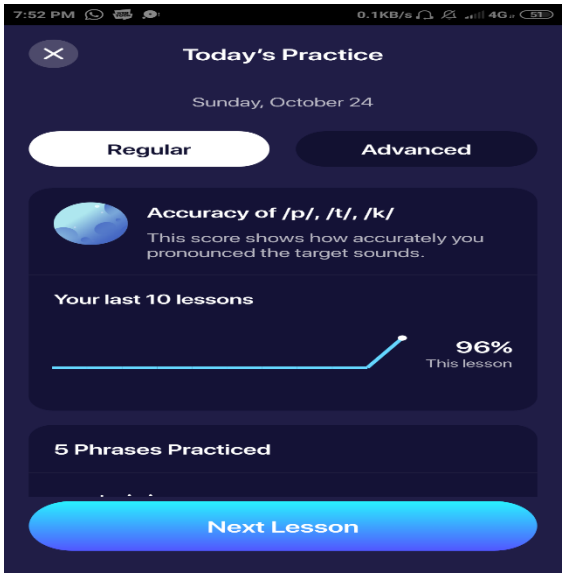

Figure 5. The result of ELSA Speak

The picture above shows the results of a student with a total score of daily practice 96%. The students had tried to use ELSA application and got 96% in his/her pronunciation practice. It is classified as a high score or 'very skilled' categorization.

3.2. Analysis

The researcher also asked about the students' perception toward ELSA Speak use. The table below show the result.

Table 5. Students' perceptions of using ELSA Speak

No	Question	Strongly Agree	Agree	Disagree	Strongly Disagree
1	I'm sure that I could enhance my speaking skills.	24 (40%)	30 (50%)	4 (6,7%)	2 (3,3%)
2	My performance has improved since I used ELSA Speak	25(42%)	20 (33%)	12 (20%)	3 (5%)
3	ELSA Speak application boost my motivation.	18 (30%)	20 (33%)	13 (22%)	9 (15%)
4	ELSA Speak has friendly features that make learning speaking more easily.	22 (37%)	25 (42%)	10 (16%)	3 (5%)

5	I will suggest this program to my friends who are having trouble with their speaking skills.	28 (47%)	23 (38%)	9 (15%)	0

The learners were given guidance and motivated to practice their pronunciation using the ELSA Speak application's content including audio voice, phonetic transcripts, vocabulary, conversation audio, and quizzes. Relatable to the suggested goal and competency level, the program gives the subject a lot of attention. The table above shows that half of the students agree that ELSA Speak could help them improve their speaking skills. Even though many students said that ELSA Speak is user-friendly, there are still those who were having difficulties on running the application. Finally, there were many students would like to recommend to their friends about ELSA Speak in order to practice the speaking skills.

4. CONCLUSION

The research concludes that using the ELSA Speak Pronunciation app can improve students' engagement, attitudes, and attitude for learning pronunciation, particularly among informatics department students. Automatic Speech Recognition as a part of Mobile Assisted Language Learning (MALL), also enables students to study independently outside of the classroom at their speed. In the EFL context, when native speakers are almost non-existent, it serves as both a novel kind of learning aid and a substitute source for listening to the proper pronunciation of English. Because of its offline functionality, even people from low-income families can use it more easily. The application contains appealing features and is simple to use.

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