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AI-POWERED APPS TO ENHANCE NOVICE NEWSREADERS' ENGLISH PRONUNCIATION

Ana Humardhiana

Department of Islamic Broadcasting and Communication, Faculty of Da'wah and Islamic Communication, IAIN Syekh Nurjati Cirebon, Indonesia

*Corresponding author: Perjuangan Street, Kesambi, Cirebon City, West Java, 45132, Indonesia. E-mail address: anahumardhiana@gmail.com

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Among the goals that Communication students, who are ESP learners, desire to achieve is to become professional newsreaders who can deliver the news in both Indonesian and English. These novice newsreaders with little to no knowledge about news delivery in English often face problems with English pronunciation. This study aims to help forty-one novice newsreaders, who are students of the Islamic Broadcasting and Communication Department, with their English pronunciation using AI-powered apps and to reveal their perceptions of the apps. The students were involved in one cycle of Classroom Action Research (CAR), where they had to make a video of them reading English news before using the apps as the pre-test and another video after the lecturer taught them how to use the apps as the post-test. The researcher distributed a questionnaire via Google Form after the post-test to complete the data. The results show that AI-powered apps can enhance novice newsreaders' English pronunciation, especially in the aspects of Accuracy, Key Words, Chunking and Pausing, Intonation, as well as Sounds and Vocal Features; yet, Intonation becomes the lowest improved aspect. Also, the respondents believed that the apps help them with their future job as newsreaders, are easy to use, and give instant feedbacks, which are necessary for independent learning and suitable for ESP learners. The ELSA app rose to the top of the list of the respondents' favorites. Finally, it is recommended that future researchers carry out comparable studies that focus on one or two particular English sounds evaluated across multiple cycles.

INTRODUCTION

The rapid development of technology has embarked on creating human-like intelligence applied in any machine people often use in everyday life. From the automatic spelling correction in Microsoft Word to Siri-infused home appliances, artificial intelligence (AI) has significantly helped humans. It is an impactful innovation that characterizes The 4th Industrial Revolution. According to McCarthy (2007), AI refers to the science and engineering of creating intelligent machines, in which intelligence refers to the ability to solve problems computationally to achieve goals. Russell (2010) states that AI is the art of constructing computers capable of thinking and acting like humans or thinking and acting suitably. Al-Shawabkah (2017, p. 23) adds that AI is described as the abilities transferred to computers to enable many performance systems to be intelligent and to resemble humans in their behavior. With these qualities of humans, AI is utilized to help people solve their problems and get everyday work done with ease. One practical example of how people can use AI is via a smartphone (Goksel & Bozkurt, 2019). The AI-powered applications in a smartphone help

people drive to a desired place with the assistance of GPS, solve algorithmic trading problems, check and correct spelling errors in texts, and many others. Without question, AI is changing the way people live, work, and learn (Manns, 2017).

In the education field, AI is a current trend to employ, especially for English learning and teaching (ELT). AI-powered applications have hugely contributed to the teaching and learning process of English. Haryadi and Aprianoto (2020) conducted a study to find out whether the integration of an AI-based application called the English Pronunciation app can increase students' participation and self-learning in pronunciation classes at Mandalika University of Education. The research results indicate that the integration of this app in teaching pronunciation increased the students' participation in terms of engagement, attitude, and conduct. The app also brought a positive effect on the establishment of independent learning for a significant number of students (Haryadi & Aprianoto, 2020). In the same year, Abbas and Fathira (2020) conducted a further study to improve students' pronunciation in pronouncing the ending -ed by implementing an Android application and to find the factors influencing the improvement. The results show that there was an improvement that can be learned from the increase in the students' ability to pronounce the ending –ed from the level of the "fairly good" category to the "good" one. Meanwhile, the factors influencing the students' ability to pronounce the ending –ed are the students often practiced and listened to the Android application either online or offline to obtain the understanding and the information on how to pronounce the exact words of the ending –ed, which sounds /t/, /d/, and /id/ (Abbas & Fathira, 2020).

In 2021, Suciati conducted another study on students who lived in remote areas when the COVID Pandemic hit to find out the students' favorite AI-based speaking applications, the underlying reasons, and the weaknesses of using AI-based speaking applications. Based on the study, the favorite AI-based speaking apps are *Cake*, *Talk*, *Elsa,* and *Speak English*. The students' reasons for choosing them are because those speaking apps were free, easy to access, flexible to be used everywhere and every time, able to be used as good alternative speaking partners, and able to give evaluation or assessment. Whereas, the weaknesses of the AI-based speaking apps are limited to the topics and conversations served by the applications, so they cannot be elaborated more. Unfortunately, the speaking applications with good features are not freely accessed and need more space in the gadget (Suciati, 2021). Focusing on another skill to research, Al-mawaly and AL-Jamal (2022) conducted a study aiming to investigate the effect of AI on Jordanian EFL sixth-grade students' listening comprehension and their attitudes towards it. The research results indicate that the experimental group with the help of AI significantly scored higher than the control group without AI in the three and overall levels of listening comprehension. The findings suggest that using AI effectively enhances EFL learners' listening skill.

According to previous studies, AI-powered apps are proven to have a great impact on students of English and/or students who learn English for general purposes. But not many studies focus on the use of AI-powered apps for students who learn English for specific purposes (ESP), such as for their jobs. This study is distinct in a way that it tries to help novice newsreaders, who learn ESP, by applying AI-powered apps to improve their pronunciation for better English news delivery. The novice newsreaders in this study are students of Islamic Broadcasting and Communication, IAIN Syekh Nurjati Cirebon, who have some knowledge about Indonesian news delivery but not enough knowledge about English news delivery. Similar to Gilakjani's study (2018), these students have problems with their pronunciation since pronunciation is one of the aspects that are least likely to be taught by the lecturers in ESP classes at this campus. In addition, these students do not have adequate exposure to English

since they do not live in an English environment where they can practice their speaking skill, especially pronunciation. It is unfortunate since novice newsreaders' success in delivering the news in English depends on their pronunciation, which they are still weak in. Thus, this research attempts to help enhance novice newsreaders' English pronunciation and reveal their perceptions of the apps.

METHOD

The researcher applied the Classroom Action Research method in this research. According to Ebutt in Hopkins (2014), Classroom Action Research (CAR) is the effort to enhance teaching and learning through a series of practical actions and to reflect on the outcomes of those actions. Kemmis and McTaggart (1998) define action research as an action that is taken to inquire about one's own self-reflection and improve one's instruction by evaluating one's own practice. Sagor (2010) sees action research as a process of inquiry conducted by the practitioner and for those who take the action. Krathwohl (1993) adds that action research is done by practitioners to improve practice. McNiff (2013) clarifies that the researcher does his or her research in action research. In other words, the practitioner does the research himself or herself to make some improvement on a specific inquiry. In this study, the researcher conducted CAR in one of the classes she teaches to improve the students' English pronunciation by using AI-powered applications. Forty-one male and female students of the Islamic Broadcasting and Communication Department, Faculty of Da'wah and Islamic Communication, IAIN Syekh Nurjati Cirebon, were purposively selected as the participants of this study. These students were in Semester 5 where they were supposed to have some practice in delivering the news in Indonesian and in English. They were treated like novice newsreaders who still had no experience in news delivery.

In this study, the researcher used the basic model of CAR developed by Kemmis and McTaggart (2013), which has four stages in a cycle; CAR allows the implementation of a series of cycles to solve the problem. Below is the figure of a cycle by Kemmis and McTaggart (2013).

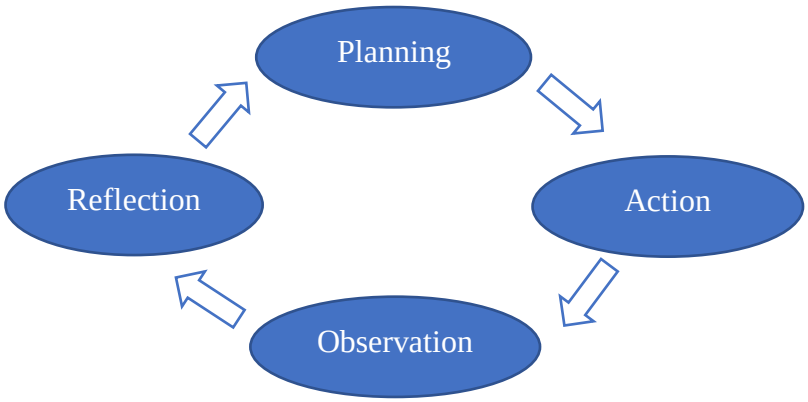

Figure 1. Four Stages of A CAR Cycle by Kemmis and McTaggart (2013)

The initial stage that the researcher did was Planning. In this stage, the researcher designed the lesson plan, materials, technique, pre-test, post-test, interview questions, and pronunciation accuracy checklist for the assessment. The researcher also selected some AI-powered applications to recommend to the students. The next stage is Action, where the researcher conducted all the planned activities. In this stage, the researcher instructed the students to make a video where they read a piece of English news as the pre-test. After that, in the following

meeting, the researcher taught the students how to use AI-powered apps to check their pronunciation. Then, they were instructed to make another video where they read the same English news as the post-test. This step was done to see how their pronunciation accuracy had improved. A pronunciation accuracy checklist adapted from the Pronunciation Intensive Academic Program e-booklet by the University of Technology, Sydney (2016) was employed to gain the quantitative data. However, the researcher needed to adjust the aspects to assess, which are Accuracy, Key Words, Chunking and Pausing, Intonation, and Vocal Features. The researcher used the institute's grading system to score the pre-test and the post-test.

Table 1. Grading System of IAIN Syekh Nurjati Cirebon

Score	Grade	Quality of Achievement
90-100	A	Excellent
85-89	A-	Very Good
80-84	B+	
75-79	B	Good
70-74	B-	
65-69	C+	Satisfactory
60-64	C	
50-59	D	Failure/No Credit
0-49	E	

Also, a questionnaire via Google Form was carried out after the post-test to complete the data. In the Observation stage, the researcher observed and monitored how the students used the AI-powered apps. She also administered the assessment using the pronunciation accuracy checklist. The last stage was Reflection, where the researcher reflected on how the research had been carried out by learning from the analysed data. Since the learning progress was already visible in one cycle, the researcher did not conduct multiple cycles.

FINDINGS AND DISCUSSION

Findings

The pre-test and the post-test were conducted in two different meetings, Week 12 and Week 13. In Week 12, the students did the pre-test (P1), where they took a video of themselves reading news from ABC7 Channel about an earthquake hitting Cianjur that drew international attention. The news was taken from https://www.youtube.com/watch?v=FDs-BhvwAmI. Then, the students were taught how to use AI-powered apps to enhance their English pronunciation. At the end of the class, they were instructed to make a video where they read the same English news within a week of submission, as the post-test (P2). Hence, they had seven days to train their pronunciation using the apps. This step was conducted to know how these apps affected their pronunciation. The students were given the freedom to choose which app to use. So, one student might have a different app from another. Forty-one students were involved in this research and submitted their work. The researcher assessed their pronunciation by employing a pronunciation accuracy checklist adapted from the Pronunciation Intensive Academic Program e-booklet by the University of Technology, Sydney (2016) which measures pronunciation aspects that can be used for news delivery, namely Accuracy (how accurate the words are pronounced based on the standard), Key Words (whether the keywords stressed), Chunking and Pausing (whether the information delivered divided into chunks or thought groups and whether the speaker used pausing appropriately), Intonation (whether the speaker's intonation indicate finished and unfinished information and whether the pitch range was wide enough to make the most important keywords easy to hear as well as to make the speaker sound interesting), and Sounds and Vocal Features (whether the sounds and syllables linked together, as well as

whether the speed and the volume were just right). Below is the result of the assessed pre-test (P1) and post-test (P2) from all forty-one students in one cycle.

Table 2. Results of the Pre-Test (P1) and Post-Test (P2)

Aspects	P1 Average	P2 Average	Improvement (%)
Accuracy	58	80	37.93%
Key Words	45	62	37.78%
Chunking and Pausing	48	79	64.58%
Intonation	57	73	28.07%
Sounds and Vocal Features	59	76	28.81%
Mean	**53.4**	**74**	**38.58%**

The first column of Table 2 displays the aspects of pronunciation assessed. The second column shows the average P1 score of all 41 students from all aspects. In P1, the Accuracy aspect's score is 58, which is Failure. The Key Word aspect in P1 average score hits not more than 45 (Failure). The Chunking and Pausing aspect is slightly no different by gaining only three more points or 48 in total, still in the Failure quality. The Intonation aspect in P1 average score gets 57 points, which is, again, still in the Failure quality. The highest score of all aspects in P1, which is 59 points, is gained by the Sounds and Vocal Features. However, it still falls in the Failure quality. From all five aspects, the mean of the P1 average score is 53.4, which falls under the institute's grade category of D (Failure). The third column of Table 2 shows the average P2 score from the five aspects. The Accuracy aspect in the P2 score hits 80 points, which increases 37.93% from P1. This score falls in the quality of Very Good. The Key Word aspect in the P2 score is increased by 37.78% or 23 points, from 45 in P1 to 62 in P2, which falls in the quality of Satisfactory. The Chunking and Pausing aspect has the highest improvement percentage of 64.58%, from 48 to 79 in P2, which falls in the quality of Good. While in the aspect of Intonation, there is an increase of 28.07%, from 57 points to 73 points in P2, which falls in the quality of Good, and there is also an increase of 28.81% in the Sound and Vocal Feature aspect in P2, from 59 to 76 points, which falls in the quality of Good. Overall, the students' pronunciation improved by 38.58%, from 53.4 points in P1 to 74 points in P2, which meets the quality of Good. Based on the description, we can see that the most improved aspect in one cycle is Chunking and Pausing. The respondents were seen to be able to divide information into chunks or thought groups and use pausing appropriately. Meanwhile, the least improved aspect is Intonation. The respondents could still not use Intonation (whether the speaker's intonation indicates finished and unfinished information and whether the pitch range was wide enough to make the most important keywords easy to hear as well as to make the speaker sound interesting).

Besides conducting a pre-test and a post-test for the students, the researcher distributed a questionnaire to the students to complete the data. The result of the questionnaire is displayed in a figure and tables below.

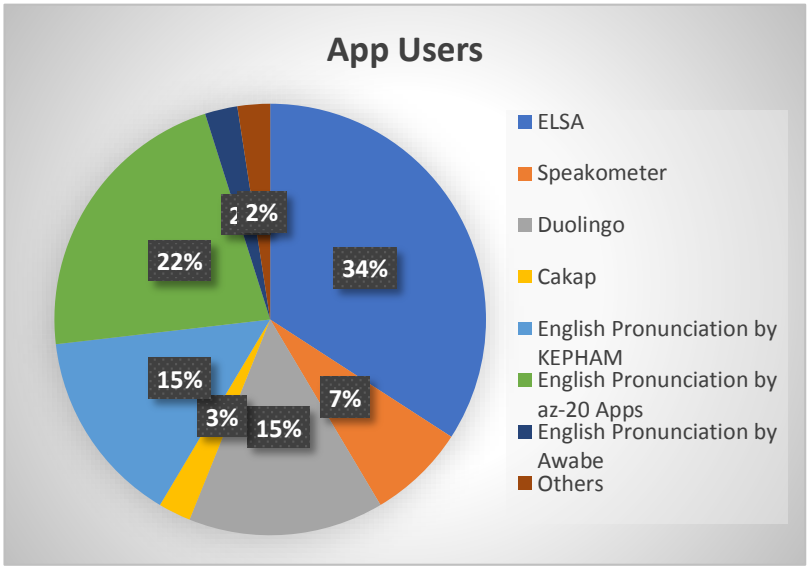

Figure 1. Most Used AI-Powered Pronunciation Apps

Figure 1 shows the AI-powered pronunciation apps most used by the students. Based on the result, ELSA became the most favorite app to use by 34% users of the forty-one students. The runner-up place is seated by English Pronunciation by az-20 Apps with 22% users. Duolingo and English Pronunciation by KEPHAM got the same percentage of users, which is 15%. The next app is Speakometer which drew the interest of 7% of students. Cakap is preferred by 3% of the students. The least favored app is English Pronunciation by Awabe with 2% of users. The rest students, 2% in percentage, utilized the AI in Google Translate machine. Based on the figure, we can see that ELSA became the most favorite application to use to improve the students' pronunciation. Most of the respondents already knew what ELSA was. They only had not had the chance to install and use it for a visible purpose.

The questionnaire also asked whether the app chosen by the students helped them enhance their English pronunciation. The result is shown in Table 3.

Table 3. This App Helps Me Enhance English Pronunciation

Statement	Number of Respondents	Percentage
Strongly Agree	13	31.7%
Agree	21	51.2%
Neutral	5	12.2%
Disagree	2	4.9%
Strongly Disagree	-	-

Table 3 shows that 31.7% of the respondents, which are 13 students in the figure, strongly agreed that the app they chose helped them improve their English pronunciation. There were 51.2% of the respondents, or 21 students agreed that the apps helped them with their English pronunciation. As many as five students, or 12.2% of the respondents, had a neutral opinion about this topic. While two students, or 4.9% of the respondents, disagreed that the apps helped them improve their pronunciation. And zero students strongly disagreed that the apps could enhance the users' English pronunciation. From the table, we can see that the majority of the students think that the apps they chose helped them enhance their English pronunciation.

The students were also asked to respond to a statement about whether the app they chose gave accurate feedback. The result is displayed in Table 4 below.

Table 4. This App Gives Accurate Feedback

Statement	Number of Respondents	Percentage
Strongly Agree	11	26.8%
Agree	20	48.8%
Neutral	7	17.1%
Disagree	2	4.9%
Strongly Disagree	1	2.4%

Table 3 reveals that eleven students, or 26.8% of the respondents, strongly agreed that the apps gave accurate feedback. As many as 20 students, or 48.8% of the respondents, agreed with this statement. Seven students, or 17.1% of respondents, had a neutral opinion of the statement. Two students, or 4.9% of the respondents, disagreed that the apps gave accurate feedback. Meanwhile, one student, which made up 2.4% of the respondents, strongly agreed with the statement. From the description, we can say that the majority agreed that the apps gave accurate feedback on their learning.

The next statement to respond to is whether the app they chose was easy to use. The result is presented in Table 5 below.

Table 5. This App Is Easy To Use

Statement	Number of Respondents	Percentage
Strongly Agree	15	36.6%
Agree	19	46.3%
Neutral	6	14.6%
Disagree	-	-
Strongly Disagree	1	2.4%

Table 5 shows fifteen students, or 36.6% of the respondents, strongly agreed that the app they chose was easy to operate or use. As many as 19 students, or 46.3% of the respondents, agreed with the statement. It is found that not all respondents agreed with this statement because six students, or 14.6% of the respondents, had a neutral opinion. Meanwhile, there were no respondents who disagreed with the statement. Yet, one student, or 2.4% of the respondents, strongly agreed that the app chosen was easy to use. From the description, we can say that the majority agreed that the apps were easy to use.

The students were also asked to respond to a statement about whether the app they chose helped them learn independently or autonomously. The result is displayed in Table 6 below.

Table 6. This App Helps Me Learn Independently

Statement	Number of Respondents	Percentage
Strongly Agree	18	43.9%
Agree	21	51.2%
Neutral	2	4.9%
Disagree	-	-
Strongly Disagree	-	-

Table 6 reveals that there were eighteen students, or 43.9% of the respondents, who strongly agreed that the app they chose helped them learn independently. Twenty-one students, or 51.2% of the respondents, agreed with this statement. There were only two students, or 4.9% of the respondents, who had a neutral opinion about this statement, while there were no respondents who disagreed and strongly disagreed with the statement. From the description, we can learn that the majority agreed that the apps helped the respondents or users learn English pronunciation independently.

The last statement to respond to is about whether the app they chose helped them as a newsreader in the future. The result is presented in the following table.

Table 7. This App Helps Me As A Newsreader In The Future

Statement	Number of Respondents	Percentage
Strongly Agree	14	34.1%
Agree	22	53.7%
Neutral	3	7.3%
Disagree	2	4.9%
Strongly Disagree	-	-

Table 7 shows fourteen students, or 34.1% of the respondents, strongly agreed that the apps they chose helped them for their future job as newsreaders. There are twenty-two students, or 53.7% of the respondents, who agreed with the statement. While three students, or 7.3% of the respondents, had a neutral opinion, and only two students, or 4.9% of the respondents, disagreed with this statement. There was no single respondent who strongly disagreed with the statement. From the description, we can learn that the majority agreed that the apps helped the respondents with their future job as newsreaders.

Discussion

Based on the research findings, AI-powered apps are proven to be able to help novice newsreaders enhance their English pronunciation. It is in line with Kholis (2021) who states that ELSA Speak, an AI-based application, can increase students' pronunciation skills. After seven days of practice, the novice newsreaders made some improvement in all aspects of pronunciation assessed, namely Accuracy, Key Words, Chunking and Pausing, Intonation, as well as Sounds and Vocal Features. All of the aspects had been in the quality of Failure in the beginning. Yet, after the novice newsreaders practiced their pronunciation using AI-powered apps, they achieved varied qualities, from satisfactory to very good at the end of one cycle. Practicing English, pronunciation in this case, was never done previously even though most of them knew that the apps, especially ELSA as the most favorite and well-known app, could help them improve their English, specifically pronunciation. They did not have the chance to install and use them for something relating to their major. It becomes the role of ESP lecturers to facilitate and teach them how to benefit from the apps.

The aspects of English pronunciation assessed are very significant for English news delivery. Based on the findings, all aspects showed some progress. However, the Intonation aspect made the lowest progress by only 28.07% improvement, even though discourse intonation plays a significant role in the successful achievement of professional communicative goals (Nihalani & Lin, 1998). It becomes a note for lecturers to implement a new technique regarding teaching how to make students' intonation indicate finished and unfinished information and how to make the pitch range wide enough so that the most important keywords can be easy to hear as well as the speaker can sound interesting, which is crucial for English news delivery. The lecturers can provide various English news scripts and select some words and phrases potentially mispronounced and given the wrong intonation for the students to practice using AI-powered apps, which can be implemented in the following cycles. For a more measurable result, the lecturers can opt only one application to teach. However, this is applicable only for classes with the same socio-economic background since not all students in Indonesia can possess compatible smartphones. Even so, it is proven in this research that AI-powered apps are easy to use and able to promote autonomous learning for students who learn English for specific purposes (ESP) since they give instant feedback.

CONCLUSION

To sum up, AI-powered apps can enhance novice newsreaders' English pronunciation, especially in the aspects of Accuracy, Key Words, Chunking and Pausing, Intonation, as well as Sounds and Vocal Features. From the five aspects of pronunciation improved, Intonation becomes the aspect in which the novice newsreaders are weak. Thus, the ESP lecturers have to implement a technique where the students can have more practice and drilling to make the students' intonation indicate finished and unfinished information, the pitch range wide enough so that the most important keywords can be easy to hear, as well as the speaker can sound interesting. The lecturers can provide various English news scripts and select some words and phrases that are potentially mispronounced and given the wrong intonation for the students to practice using AI-powered apps. The findings also show that the respondents believed the apps help them with their future job as newsreaders, are easy to use, and give instant feedbacks, which are necessary for independent learning. Among the apps, ELSA became the most favorite app. Lastly, it is recommended that future researchers conduct similar research which concentrates on one or two specific English sounds assessed in more than one cycle.

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