



APPLYING DUOLINGO IN IMPROVING STUDENTS' SPEAKING SKILL

Rahmi Fhonna^{1*}, Fitriah², Muharral³, Suryani⁴

^{1, 2, 3}English Department of UIN Ar-Raniry Banda Aceh, Indonesia

⁴English Education Program, Faculty of Education and Teacher Training, Universitas Abulyatama Aceh, Indonesia

*rahmifhonna@ar-raniry.ac.id

ABSTRACT

This study aims to find out the use of the Duolingo application in improving the speaking skills of students at SMP 8 Banda Aceh. This study used a pre-experimental research design to obtain accurate research results. The sample was selected using a purposive sampling technique which is part of non-random sampling, and there were 34 students involved in this study as participants. Research instruments are the form of pre-test and post-tests to distinguish the results before and after treatment.

Based on data analysis, it was identified that there is an improvement in students' speaking skills and the result of the hypothesis is that the value of the t score is higher than the t table ($0.967 > 0.678$). This means that the hypothesis is accepted. It can be concluded that the use of the Duolingo application can improve the students' speaking skills. Therefore, the use of the Duolingo application in the learning process in improving students' speaking skills is highly recommended to be applied at all levels of study.

Keywords: Duolingo Application, students' Improvement, Speaking skill

1. INTRODUCTION

Speaking is one of the skills that must be mastered by English learners because language is used to communicate with others in everyday life. It is not only about delivering ideas with the right intonation but also related to how to deliver the contents of the conversation. Furthermore, speaking skill requires the speaker to recognize how to interact as about speaking turn (Jondeya, 2011). It is an undeniable fact that students should practice their English frequently. Therefore, the obligation of teachers is to foster the students' self-confidence so that they are brave to use English (Niah, 2019). In teaching-learning process, as a consequence, the use of media is an effort to create the quality and support its process, in which the students can enjoy participating in learning activities. It is very helpful in conveying information and simplifying the teaching process, as well as enabling teachers to practice the principles of illustration teaching and learning objects (Matra, 2020). Indrasari, Novita, & Megawati (2018) reported that media is one thing that can convey information between the source and the recipient.

It is believed, consequently, that several applications can help students to improve their English skills, especially speaking. One of them is the use of Duolingo which provides 66 different language courses available in 23 languages, 22 more courses are still being developed (Teske, 2017). About 120 million users from all over the world have registered on this application. Duolingo is one of the most popular English learning applications for beginners today because it has been downloaded by more than 200 million users and has around 30 translator languages. Uniquely, users will not feel bored learning foreign languages through this application, because Duolingo is designed to resemble a game display that can be adapted to some activities and learning styles. Duolingo, in addition, offers "gamification" learning for users, in which the games in this application provide benefits for users to learn the target language (Nushi & Egbali, 2017). Another advantage of Duolingo is that it provides daily reports on learning progress and materials that can be saved offline.

Duolingo has a very motivating learning system using strategy game mechanics to encourage students in learning. It is built very much like a computer game where the participants have to pass certain levels. Students must complete the tasks provided by the Duolingo application. For example, in speaking, students must be able to pronounce the sentences that have been provided correctly to proceed to the next more complicated sentence



stage. Users can complete various types of exercises including multiple choices, writing and also speaking through the microphone. Duolingo mainly uses practice and repetitive practice in lessons. This research, as a result, was conducted to investigate whether the Duolingo application can be a new alternative for students to improve their speaking skills.

2. METHODS

A quantitative approach was used to examine the problems that arise. The purpose of using quantitative methods was to calculate how effective the Duolingo application was when used on students to improve their speaking ability. Quantitative methods have three structures, namely experimental, correlation, and survey (Creswell, 2012). Here the researcher used experimental research to get the results of the research. According to Sugiyono (2012), experimental design is divided into three, namely, pre-experimental design, true experimental, and quasi-experimental. Here the researcher used a pre-experimental design with the type of one-group pre-test and post-test design. So in this design, there is a pre and post-test to see more accurately the data obtained between the two, after the pre-test, treatment and after that, a posttest was given. In this study, the researcher used a non-random sampling/non- probability sample, which is purposive sampling. In this case, the participants who were selected to be the members were based on the researcher's considerations. The samples used were one class of students from junior high school level (SMP 8 Banda Aceh), consisting of 34 people.

The researcher gave a pre-test during the first meeting with students, the pre-test contained how to pronounce in self-introduction and several questions related to speaking. At the second meeting the researcher introduced the Duolingo application to the students, how to use the application, and introduced the features provided, the researcher also taught about what elements should be in it. After introducing the Duolingo application and how it works, the researcher divided the students into several groups with their friends and started teaching self-introduction to the students. At the third meeting, the researcher repeated the discussion about the important elements that students must pronounce correctly. Then direct them by discussing with their group members; directing and pronouncing the sentences that have been provided in the Duolingo application. At the last or fourth meeting, the researcher gave a post-test to the students to see if there was a significant change after they were taught by using the Duolingo application to increase their ability in speaking.

3. RESULTS AND DISCUSSION

Research findings described the results of data analysis. To obtain the data, the researcher provided the pre-test and post-test.

Pre-Test

Before giving treatment, a pre-test was given to know the students' speaking skill. The frequency and percentage of the pre-test can be seen in the Table 1 below:

Table 1. The Frequency and Percentage of Pre-test Score

Frequency	Percentage
14 Students	41,17%
20 Students	58,83%
Total: 34 Students	100%

Table 1 shows the summary of the pre-test results. There were 14 students classified as successful at 41,17% and 20 students classified as unsuccessful at 58,83%. The percentage above is determined based on the results of the assessment of vocabulary and pronunciation with a predetermined score.



Post-Test

After treatment, a post-test was given to know the students' speaking after using the Duolingo application. The frequency and percentage of the post-test score can be seen in Table 2.

Table 2. The Frequency and Post-Test Score

No	Criteria	Frequency	Percentage
1	Successful	32 students	94,11%
2	Unsuccessful	2 students	5,89%
	Total	34 students	100%

Table 2 showed that there were 32 students classified as successful with 94,11% and 2 students categorized in an unsuccessful group with 5,89% in post-test. It could be concluded that there was an improvement in students' speaking skills, from 41,17% in pre-test to 94,11% in post-test. The comparative of students' scores at pre and post-test speaking can be seen in Table 3.

Table 3. The Comparative of Students' Speaking

	Mean	N	Std. Deviation	Std. Error Mean
Pre-Test	64,70	34	11,00	1,88
Post-Test	79,70	34	9,53	1,63

Table 3 shows the mean score of students' speaking, which they obtained around 64.70 on the pre-test with a standard deviation was 11.00 and a standard error of 1.88, and the post-test was 79.70 with a standard deviation was 9,53 and a standard error mean was 1.63. It was provided by the pre-test and post-test average scores where the post-test score was higher and had an improvement than the pre-test mean score after being given treatment. From the table, it also can be seen that the mean value was getting better from 64,70 in the pre-test up to 79.70 in the post-test. It proved that using the Duolingo application improved students' speaking with an improvement of 15.00%. After that, the writer also classified the frequency and percentage of the score of students' speaking using the Duolingo application which can be seen in Table 4.

Table 4. The Frequency and Percentage of the Score of Students' Speaking Skill Using Duolingo Application

No	Score	Category	Pre-test		Post-test	
			F	P	F	P
1.	96-100	Excellent	0	0%	0	0%
2.	86-95	Very good	1	2,94	9	26,47
3.	76-85	Good	4	11,76	10	29,41
4.	66-75	Fairly good	7	20,58	12	35,29
5.	56-65	Fairly	11	32,35	3	8,82
6.	36-55	Poor	11	32,35	0	0%
7.	0-35	Very poor	0	0%	0	0%
Total			34	100%	34	100%

Table 4 shows the frequency and percentage of pre-test and post-test scores of students' speaking using the Duolingo application. In the pre-test, there were no students classified in the excellent and only 1 student classified in the very good category, 4 students or 11,76% classified in the good category, 7 students or 20,58% categorized in the fairly good option, 11 students or 32,35% classified in the fair category and 11 students or 32,35% classified the poor category and fortunately, no student was in the very poor category. In the post-test, in



addition, no students were in the excellent category as well. 9 students or 26,47% classified in the very good category, 10 students or 29,41% classified as the good category, 12 students or 35,29% classified as the fairly good category, 3 students or 8,82% students classified fairly, and also no student classified in poor and very poor category. It meant that the students' speaking score in the post-test were better than in the pre-test.

Test of Hypothesis

The formula from the T-Score was utilized by the researcher to analyze the hypothesis. A t-test is required, to locate the outcomes of the research hypotheses Sudjana (2008). The T-score played a significant role in this study's analysis. To compare the data, scores, and effectiveness findings from the study, the T-score sought to identify a significant difference between the Pre-test, which served as the first test, and the Post-Test, which served as the second test. The researcher compared the calculated t-test findings with the t-table value after determining the results of the calculation. In this case, the researcher could see if the value and outcomes of the t-test were higher than those of the t- table (alpha: 5%), from which it could be stated that there are extremely noticeable and significant changes and differences in the outcomes attained by students while studying. The calculation of the overall deviation scores of the students' pre-test and post-test can be seen in the following:

$$\begin{array}{llll} \sum = 2110 & \sum = 143.110 & \sum = 2705 & \sum = 218.995 \\ \sum^2 = 4.452.100 & & & \sum^2 = 7.317.025 \end{array}$$

a) Calculating The Standard Deviation of Pre-Test

$$\begin{aligned} \sum SD1 &= \sum x^2 - \frac{(\sum X)^2}{N} \\ &= 143.110 - \frac{4.452.100}{34} \\ &= 143.110 - 130.944 = 12.156 \end{aligned}$$

b) Calculating The Standard Deviation of Pos-Test

$$\begin{aligned} \sum SD2 &= \sum Y^2 - \frac{(\sum Y)^2}{N} \\ &= 218.995 - \frac{7.317.025}{34} \\ &= 218.995 - 215.206 = 3.789 \\ S_{x-y} &= \sqrt{\frac{\sum SD1 + \sum SD2}{N + N - 2} - \left[\frac{1}{N} + \frac{1}{N}\right]} \\ &= \sqrt{\frac{12.156 + 3.789}{66} - \left[\frac{1}{34} + \frac{1}{34}\right]} \\ &= 15.15 \end{aligned}$$

c) Calculating the T-Score



$$t - score = \frac{\bar{X}^1 - \bar{X}^2}{\sqrt{\frac{\sum SD1 + \sum SD2}{N + N - 2} - \left[\frac{1}{34} + \frac{1}{34}\right]}}$$

$$= \frac{79,70 - 64,70}{15,15} = 0,967$$

d) Calculating T-Table used level 5% with df:

$$df = N + N - 2$$

$$= 34 + 34 - 2 = 66 \longrightarrow 0,678$$

This indicates that based on the evidence of the comparison of t score and t table, hypothesis (Ha) stated there is a difference in students' speaking skills after they learn speaking by using the Duolingo application, was accepted.

Overall, the results of this research indicated the improvement of students' speaking skill at the junior high school level at SMP 8 Negeri Banda Aceh in the academic year 2021/2022. This research used the Duolingo Application to improve students' speaking because the Application is interesting and all the students are excited to use it while learning to speak. They become enthusiastic about their studies which make them serious to learn about speaking. They are actively involved while learning speaking and asking some questions about speaking material that are provided by the Duolingo Application. It, in addition, can be used everywhere and is easy to apply in teaching. Fauzi (2018) stated that Duolingo's application was effective to improve English vocabulary in the sixth grade students of Madrasah Ibtidaiyah Darul Ilmi Banjarbaru School Year 2017/2018. There were two classes, they were VIB consisted of 25 students who got treatment using the Duolingo application and VIA consisted of 26 students who got treatment using conventional teaching. The instrument of the research was a vocabulary test consisting of multiple choices. In addition, according to Munday (2016), Duolingo is an easy-to-use app that is useful for students.

4. CONCLUSION

After the researcher conducted the research, it could be concluded that using the Duolingo Application can improve students' speaking skill. This is proven by the results of t-score which is higher than the t-table value ($0.967 > 0.678$). The improvements were visible after the treatment using this technique was carried out; this proves that using the Duolingo application can increase students' ability in speaking. The application of Duolingo apps also improves their understanding of using the application in learning speaking. This is also evidenced by the average pre-test score of 64,70 and the increase of the post-test score up to 79.70. Therefore, it can be stated that the students experienced an improvement in their speaking skill after using the Duolingo application as a medium for their studies.

REFERENCES

- Creswell, J. W. (2012). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. Boston: Pearson Education. inc.
- Fauzi, A. R. (2018). The effectiveness of duolingo in improving vocabulary ability at the Sixth Grade of Madrasah Ibtidaiyah Darul Ilmi Banjarbaru School year 2017/2018. Thesis. English Education Department, Faculty Of Tarbiyah And Teacher Training, Antasari State Islamic University. Banjarmasin. <http://idr.uin-antasari.ac.id/id/eprint/9261>.



- Indrasari, A., Novita, D., & Megawati, F. (2018). Big book: Attractive media for teaching vocabulary to lower class of young learners. *JEES (Journal of English Educators Society)*, 3(2), 141-154.
- Jondeya, R. S. (2011). The effectiveness of using information gap on developing speaking skills for the eighth graders in Gaza governorate schools. Thesis. Deanery of Postgraduate Studies, Faculty of Education, Department of Curricula and Teaching Methods, Al-Azhar University. Gaza.
- Matra, S. D. (2020). Duolingo applications as vocabulary learning tools. *JELLE: Journal of English Literature, Linguistics, And Education*, 1(1).
- Munday, P. (2016). The case for using Duolingo as part of the language classroom experience. *Sacred Heart University*, 19(1), 83-101.
- Niah, S. (2019). The utilization of duolingo to improve the speaking and listening skills of junior high school students in Pekanbaru. In *an International Conference of CELSciTech 2019-Social Sciences And Humanities Track (ICCELST-SS 2019)* (pp. 102-107). Atlantis Press.
- Nushi, M. & Eqbali, M. H. (2017). Duolingo: A mobile application to assist second language learning. *Teaching English with Technology*, 17(1), 89-98.
- Sugiyono, S. (2012). Metode penelitian kuantitatif kualitatif dan R&B. Bandung: Alfabeta.
- Teske, K. (2017). Duolingo. *CALICO Journal*, 34(3), 393–401. Retrieved from <https://www.jstor.org/stable/90014704>.