

# The Utilization of Duolingo to Improve the Speaking and Listening Skills of Junior High School Students in Pekanbaru

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**Abstract**—This research aims to find out the effectiveness of using duolingo application to improve students' speaking and listening skills. The research was carried out at SMP IT Al-Hafit Pekanbaru involving 58 students in the 8<sup>th</sup> Grade as the research sample. This study uses quantitative research methods with the ASSURE model (Analyze, State, Select, Utilize, Require, and Evaluate). The result obtained from the use of duolingo in class VIII.1 on speaking and listening skills of the "t" value with df 31 at the 0.05/5% level is 2,042, while the results obtained from using duolingo in class VIII.2 for speaking and listening skills of the "t" value with df 27 at the 0.05/5% level is 2,052. The results of each ability show that the students' speaking ability of class VIII.1 is 5.5> 2,042 and their listening ability is 4.48> 2,042. The students' speaking ability of class VIII.2 is 5.17> 2,052, while their listening ability is 5.10> 2,042 (the "t" table is each greater than the "t" value). This demonstrates that the use of duolingo to improve speaking and listening skills in junior high school students is proven to be effective.

**Keywords**—duolingo, speaking, listening

## I. INTRODUCTION

English skills consisting of 4 (four) basic skills, namely reading, listening, speaking and writing are abilities that need to be improved by students, including in junior high school level. The improvement starts from the selection of techniques, media, and learning resources. These three things have been implemented by teachers in teaching process in schools, but the media used are still not optimal because they are still limited to handbooks issued by the Department of Education that do not represent all student learning styles. As a consequence, the impact on student motivation and learning outcomes is low. Meanwhile, Law No.20 of 2003 concerning SISDIKNAS [1] and the 2013 curriculum emphasize the use of ICT (Information and Communication Technology) in learning.

Based on the results of pre-research observations and interviews at SMP IT Al-Hafit Pekanbaru done on August 15, 2018 in class VIII, some issues in learning were found. First, school facilities or infrastructure are not adequate to support language learning, for example, the unavailability of language laboratories and technology-based media used for learning. Second, the tendency of students to use Android, electronic devices, and the internet only for social media and has not been used maximally for learning. Third, low student

learning outcomes are proven to be only 30% of students who reach KKM (Minimum completeness criteria), whereas KKM for all subjects only 75 including English, except Indonesian with KKM 80. The current condition should not be continuous which impacts on the quality of graduates. Therefore, it is necessary to find a strategy to solve the problems. Conducting a research on "Utilization of Duolingo to Improve the Speaking and Listening Skills of Middle School Students in Pekanbaru" is an alternative.

The purpose of this study was to determine the effectiveness of utilizing Duolingo on student learning outcomes. This research is of importance because the use of Duolingo is expected to help improve students' speaking and listening skills if used optimally. Furthermore, duolingo can be accessed with or without an internet network and can be installed on an Android phone or computer at home, so students can study anywhere and anytime. In addition, students can measure their own English skills, because Duolingo includes an assessment recapitulation, selects the level according to ability and can see the progress of learning every day. Teachers can also monitor the performance of their students just by opening an android phone that is owned anywhere and anytime, also can save learning time.

Duolingo is one of the applications used to learn languages. It can be used as a learning media because it includes four components of language skills, namely reading, writing, listening, and speaking. The use of media in learning objectives is to facilitate and help students understand teaching material in depth and in full. Important learning media used in language learning are based on the results of research [2] stating that the media can unite several elements to convey the material so that it can meet the learning needs of students who have different cognitive abilities. In addition, according to Franky Mantiri in his journal [3] said that the benefits of learning to use technology can help students learn better and understand what they want more easily.

Learning English specifically speaking and listening using Duolingo on the grounds that based on research conducted by Roumen Vasselinov of Queen College University and Jhon Grego of the University of South Carolina [4] showing that the use of duolingo is effective for language tests because duolingo can measure learning time per hour. The results of these studies indicate that duolingo can be used as a medium for language tests in speaking and listening skills.

The results of other studies conducted by [5] showed that duolingo used for the TOEFL IBT test in which there were four language skills namely reading, writing, listening and speaking gave statistically significant values.

### **Speaking Skill**

Speaking is one of the skills that must be mastered by English learners because language is used to communicate with others in everyday life. In communicating, the speaker often conveys ideas and feelings towards the other person [6]. In this delivery, the speaker uses verbal and non-verbal symbols in various situations [7]. Speaking 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 know how to interact as about speaking turn [8]. Speaking requires productive and receptive skills that involve the speaker and the listener.

Research conducted by [9] shows other problems that occur in the field which certainly affect the students' speaking abilities. Research shows that many students do not dare to use English in class because they are afraid of the teacher, and many students are reluctant to practice both inside and outside the classroom for fear of being laughed at by friends.

It is undeniable thing that students should practice their English frequently. Therefore, the obligation of teachers is to foster the students' self-confidence [10] so that they are brave to use English. Furthermore, teachers can make use of technology such as duolingo application to help students learn English. Using duolingo application is a method that can be used by teachers and students. Through this learning application, students can start by practicing or imitating the phrases they know [11].

### **Listening Skill**

Listening is a skill that students must master in order to use English fluently. But mastering listening skill is not easy because it is a process of understanding grammar and vocabulary to understand what is heard [12]. When communicating, students must pay attention to what the other person is talking about and then respond by conveying ideas.

Among many alternatives to improve listening skill, using technology should be taken into account by students in an effort to improve their listening skill. This is in line with the statement of Hicks [13] where students' learning experiences can be enriched by utilizing technology. The use of learning applications such as duolingo can be used by students to improve their English skills, especially speaking and listening. Moreover, today's students are known by the term 'digital natives' [14] so they will not experience difficulties when they have to learn using technology. Furthermore Golonka et al [15] stated that students really enjoyed learning by using technology.

### **Relevant Research**

There have been some studies conducted related to the use of duolingo. A research by Roumen Vasselinov of Queen College University and Jhon Grego of the University of South Carolina [16] under the title "Duolingo Effectiveness Study" shows that the use of duolingo is

effective for language tests because duolingo can measure learning time every hour to improve language. The results of this study indicate that duolingo can be used as a medium for language tests that can measure students' ability in language competence, namely reading, listening, speaking and listening.

Further research conducted by Iskhawa Lynn et al [17] with the title "The Duolingo English Test and Academic English" revealed that duolingo used for the TOEFL IBT test in which there were four language skills namely reading, writing, listening and speaking also gave significant value statistically. This study also explains 2 (two) purposes of using duolingo in speaking skills, namely first to assist students in oral communication, secondly to provide valuable opportunities for teachers to get to know their students in learning and provide more meaningful support while on campus.

The results of research conducted by Andi Herlina [18] entitled "The Utilization of Technology to Improve English Speaking Skills" shows that the use of technology-based devices in learning is considered effective in assessing the improvement of English language skills and proficiency and can also monitor student learning achievement, conversely learning with conventional methods is considered a failure to show student performance. The main objective of this research is to introduce activities that can be combined by utilizing various technologies such as computers, internet, cellphones to encourage students to learn and assess language skills.

The results of other research conducted by Siti Niah [19] entitled "Development of Multimedia Learning English in Functional Text Material for Students of SMPN 3 Kalasan Yogyakarta" shows the results that learning English using media makes it easy for students to understand English effectively and efficiently. Besides the use of media in learning consisting of text, graphics, animation, and images can meet the learning needs of students who have different cognitive abilities.

Based on several studies and theories mentioned above, utilizing duolingo application as an application to improve students' English skills can easily help students' understanding, both in learning process as well as in the flexibility of use because it can be used independently, measured and directed. However, little research has been done in the context of junior high school students who are still at a young age. Therefore, this research tries to find out the effectiveness of utilizing duolingo to improve speaking and listening skills of junior high school students.

## **II. RESEARCH METHOD**

This study uses quantitative research methods with the ASSURE model (Analyze: Analyzing student character, State: Formulating learning objectives, Select: Selecting media and materials, Utilizing: Utilizing media and materials, Require Learner's response: Requesting student participation, and Evaluating: Conducting evaluation). The stages of this research are first; Preparation of data collection is carried out to collect the materials needed in the research process, second; Preparation questions were made to provide a preliminary test to the students at SMP IT Al-

Hafit Pekanbaru Grade VIII (Eight) in order to determine the students' abilities before using the Duolingo application. Third; Validation of questions was done by the validator so that the questions given to students are valid and quality. Fourth; Pre-test, test questions that have been validated are ready to be used to carry out pre-test as an initial step to see students' abilities. Fifth; Treatment is carried out using the Duolingo application after the subject pre-tests to determine speaking and listening skills. Sixth; A post-test was conducted to determine the effect of using the Duolingo application, whether students get improved scores from before or not. Seventh; Data analysis was carried out when the research stage from the preparation of the data collection to the pre-test had been carried out, and at the final stage a new data analysis was conducted.

#### *Data Analysis*

The method used in this research is Experimental and Quasi Experimental Design with one group pretest-posttest design. Campbell DT, & Stanley JC [20] revealed that the one group pretest-posttest design research method is a method used for educational research with the aim to determine the effects of treatment learning processes either using a method or teaching material. In this study the aim is to find out whether the use of duolingo application is effective for learning speaking and listening. In this research, pre-test was first carried out. Second, learning treatment using duolingo application was given. Then, at the end of the meeting a post-test was given. Following is the formula of the One Group pretest-posttest Design method:

T1 X T2

#### Note:

- T1 : Pre-test to measure students' ability before treatment
- X : Treatment is given on the use of duolingo with ASSURE model
- T2 : Post-test after treatment

### III. RESULTS AND DISCUSSION

#### A. Results

This part shows the results of research carried out at Junior High School of Islam Terpadu Al-Hafit Pekanbaru with the 8<sup>th</sup> Grade Students as the sample. 31 students in Class VIII.1 and 27 students in Class VIII.2 participated in this research. The results of pre-test and post-test of the two classes can be seen in table 1 and 2 below:

Table 1. Pre-test and post-test score of the students of SMP IT Al-Hafit Pekanbaru Class VIII.1

No	Students' Names	Pre-test Score		Post-test Score	
		Speaking	Listening	Speaking	Listening
1	Aldi Resky Fauzi	70	65	80	80
2	Andika Fajar Setiawan	80	75	90	85
3	Andika Firmansyah	70	70	75	80
4	Aprilia Amanda	95	90	100	100
5	Arya Sandewa	70	70	75	80
6	Aura Humaira	70	65	80	75
7	Dava Rizky A	80	85	90	95
8	Dea Maharani	65	65	75	75
9	Elius	70	65	80	70
10	Fathir Kurnia Sandi	90	80	100	90
11	Febri Aldi	70	60	80	70
12	Fitri Krisdayanti	60	55	75	65
13	Indah Wulandari	60	60	70	70
14	Indriyani Hantika	100	90	100	95
15	Jenny Fransisca Kuswanti	80	75	90	80
16	Kodry	60	55	65	70
17	M. Fitrah	60	60	75	70
18	Megi Riandi	50	40	65	60
19	Miftael	60	55	65	70
20	Nabilah Bilqis Syifa Noor	85	85	95	95
21	Nadia Diva Larasati	55	50	65	65
22	Naila Apriani	75	75	80	85
23	Riski Nur Shalih	30	20	55	50
24	Rita Amelia	80	80	95	85
25	Rizky Ajii R	80	75	85	80
26	Romni Riski F	70	70	75	80
27	Sintia Yulia Putri	80	75	90	80
28	Siti Salsabila	60	50	70	65
29	Syifa Maimanah	70	70	75	85
30	Yulia Citra	65	65	75	80
31	Yusuf Fajar S	70	65	80	85
<b>Total</b>		<b>2180</b>	<b>2060</b>	<b>2470</b>	<b>2415</b>

Table 2. Pre-test and post-test score of the students of SMP IT Al-Hafit Pekanbaru Class VIII.2

No	Students' Names	Pre-test score		Post-test score	
		Speaking	Listening	Speaking	Listening
1	Aisyah Putri Yani	65	60	75	80
2	Annisa Amelia	65	60	80	75
3	Dimas Arya	55	50	70	75
4	Dinda Alviana Putri	95	95	100	100
5	Dwi Adi Prayoga	60	55	75	70
6	Harun	60	50	70	60
7	Himino Davi Nanta K	60	60	75	70
8	Igham Surya Ramadhan	60	60	75	70
9	Ivan	60	55	70	70
10	M. Gilang Saputra	70	70	80	85
11	M. Rezky	70	70	80	85
12	Mandala Zaky Lodaya Futra	70	60	75	70
13	Mazoya Sari	65	60	75	75
14	Mhd. Ega Septianda	55	50	70	60
15	Mifta Khudin Putra	70	70	80	75
16	Nazawa Aulia Rahman	55	60	70	65
17	Pia Armawati	50	50	65	60
18	Rangga Wirza W	80	75	90	85
19	Restu Fajar	60	50	75	75
20	Rifa Tri Novisa	80	80	90	85
21	Ryan Mufasil	55	50	70	65
22	Sofia	60	50	70	65
23	Suci Anggraini	65	60	75	70
24	Syofi Yolanda	55	50	65	65
25	Yandra Filmansyah	70	70	85	80
26	Zahra Aulia	60	50	70	65
27	Zenpiati	60	55	65	70
<b>Total</b>		<b>1730</b>	<b>1625</b>	<b>1920</b>	<b>1860</b>

## B. Discussion

Table 3. Pre-test and post-test score of student in class VIII.1 (t-table)

No	Speaking Pre-test	Speaking Post-test	$d = X_2 - X_1$	$d^2$	Listening Pre-test	Listening Post-test	$d = X_2 - X_1$	$d^2$
1	70	80	10	100	65	80	15	225
2	80	90	10	100	75	85	10	100
3	70	75	5	25	70	80	10	100
4	95	100	5	25	90	100	10	100
5	70	75	5	25	70	80	10	100
6	70	80	10	100	65	75	10	100
7	80	90	10	100	85	95	10	100
8	65	75	10	100	65	75	10	100
9	70	80	10	100	65	70	5	25
10	90	100	10	100	80	90	10	100
11	70	80	10	100	60	70	10	100
12	60	75	15	225	55	65	10	100
13	60	70	10	100	60	70	10	100
14	100	100	0	0	90	95	5	25
15	80	90	10	100	75	80	5	25
16	60	65	5	25	55	70	15	225
17	60	75	15	225	60	70	10	100
18	50	65	15	225	40	60	20	400
19	60	65	5	25	55	70	15	225
20	85	95	10	100	85	95	10	100
21	55	65	10	100	50	65	15	225
22	75	80	5	25	75	85	10	100
23	30	55	25	625	20	50	30	900
24	80	95	15	225	80	85	5	25
25	80	85	5	25	75	80	5	25
26	70	75	5	25	70	80	10	100
27	80	90	10	100	75	80	5	25
28	60	70	10	100	50	65	15	225
29	70	75	5	25	70	85	15	225
30	65	75	10	100	65	80	15	225
31	70	80	10	100	65	85	20	400
Total	2180	2470	$\sum d = 290$	$\sum d^2 = 3350$	2060	2415	$\sum d = 355$	$\sum d^2 = 4925$

Table 4. Pre-test and post-test score of student in class VIII.2 (t-table)

No	Speaking Pre-test	Speaking Post-test	$d = X_2 - X_1$	$d^2$	Listening Pre-test	Listening Post-test	$d = X_2 - X_1$	$d^2$
1	65	75	10	100	60	80	20	400
2	65	80	15	225	60	75	15	225
3	55	70	15	225	50	75	25	625
4	95	100	5	25	95	100	5	25
5	60	75	15	225	55	70	15	225
6	60	70	10	100	50	60	10	100
7	60	75	15	225	60	70	10	100
8	60	75	15	225	60	70	10	100
9	60	70	10	100	55	70	15	225
10	70	80	10	100	70	85	15	225
11	70	80	10	100	70	85	15	225
12	70	75	5	25	60	70	10	100
13	65	75	10	100	60	75	15	225
14	55	70	15	225	50	60	10	100
15	70	80	10	100	70	75	5	25
16	55	70	15	225	60	65	5	25
17	50	65	15	225	50	60	10	100
18	80	90	10	100	75	85	10	100
19	60	75	15	225	50	75	25	625
20	80	90	10	100	80	85	5	25
21	55	70	15	225	50	65	15	225
22	60	70	10	100	50	65	15	225
23	65	75	10	100	60	70	10	100
24	55	65	10	100	50	65	15	225
25	70	85	15	225	70	80	10	100
26	60	70	10	100	50	65	15	225
27	60	65	5	25	55	70	15	225
Total	1730	2040	$\sum d = 310$	$\sum d^2 = 3850$	1625	1860	$\sum d = 345$	$\sum d^2 = 5125$

Based on table 3 and 4 above, t-table result can be achieved. However, the researchers first of all find the Mean (X), Degree of freedom (df), and Standard deviation (SD) with the following formula:

### a. Mean (X)

Speaking ability of students in Class VIII.1

$$X_1 = \frac{\sum X_1}{N} = \frac{2180}{31} = 70.32$$

$$X_2 = \frac{\sum X_2}{N} = \frac{2470}{31} = 79.67$$

Listening ability of students in Class VIII.1

$$X_1 = \frac{\sum X_1}{N} = \frac{2060}{31} = 66.45$$

$$X_2 = \frac{\sum X_2}{N} = \frac{2415}{31} = 77.90$$

Speaking ability of students in Class VIII.2

$$X_1 = \frac{\sum X_1}{N} = \frac{1730}{27} = 64.07$$

$$X_2 = \frac{\sum X_2}{N} = \frac{2040}{27} = 75.55$$

Listening ability of students in Class VIII.2

$$X_1 = \frac{\sum X_1}{N} = \frac{1625}{27} = 60.18$$

$$X_2 = \frac{\sum X_2}{N} = \frac{1860}{27} = 68.88$$

### b. Degree of freedom (df)

Speaking and Listening ability of students in Class VIII.1

$$df = N - 1 = 31 - 1 = 30$$

Speaking and Listening ability of students in Class VIII.2

$$df = N - 1 = 27 - 1 = 26$$

### c. Standard Deviation (SD)

Speaking ability of students in Class VIII.1

$$SD = \sqrt{\frac{\sum d^2}{N-1}} = \sqrt{\frac{3850}{27-1}} = \sqrt{128.33} = 11.32$$

Listening ability of students in Class VIII.1

$$SD = \sqrt{\frac{\sum d^2}{N-1}} = \sqrt{\frac{4925}{27-1}} = \sqrt{164.16} = 12.81$$

Speaking ability of students in Class VIII.2

$$SD = \sqrt{\frac{\sum d^2}{N-1}} = \sqrt{\frac{5125}{27-1}} = \sqrt{197.11} = 14.03$$

Listening ability of students in Class VIII.2

$$Md = \frac{\sum d}{N} = \frac{290}{31} = 9.35$$

Md = Difference in pre-test and post-test scores

N = Number of students

31

$$\begin{aligned} \frac{(\Sigma d)^2}{N} &= 3350 - \frac{290^2}{31} \\ &= 3350 - \frac{84100}{31} \\ &= 3350 - 2712 = 638 \end{aligned}$$

$$\begin{aligned} \Sigma X^2 d &= \Sigma d^2 = \Sigma \frac{(d)^2}{N} \\ &= 3350 - 638 \\ &= 2712 \end{aligned}$$

$$\begin{aligned} t &= \frac{Md}{\sqrt{\sum X^2 d}} \\ &= \frac{Md}{\sqrt{N(N-1)}} \\ &= \frac{9.35}{\sqrt{\frac{2712}{31(31-1)}}} \\ &= \frac{9.35}{\sqrt{\frac{2712}{930}}} \\ &= \frac{9.35}{\sqrt{291}} \\ &= \frac{9.35}{1.70} \\ &= 5.5 \end{aligned}$$

#### **Students' listening ability in Class VIII.1**

$$\begin{aligned} Md &= \frac{\Sigma d}{N} & Md &= \text{Difference in pre-test} \\ && &\text{and post-test scores} \\ && N &= \text{Number of students} \\ Md &= \frac{355}{31} = 11.45 \end{aligned}$$

$$\begin{aligned} \frac{(\Sigma d)^2}{N} &= 4925 - \frac{355^2}{31} \\ &= 4925 - \frac{126.025}{31} \\ &= 4925 - 4065 = 860 \end{aligned}$$

$$\begin{aligned} \Sigma X^2 d &= \Sigma d^2 = \Sigma \frac{(d)^2}{N} \\ &= 4925 - 860 \\ &= 4065 \\ t &= \frac{Md}{\sqrt{\sum X^2 d}} \\ &= \frac{Md}{\sqrt{N(N-1)}} \\ &= \frac{11.45}{\sqrt{\frac{4065}{31(31-1)}}} \\ &= \frac{11.45}{\sqrt{\frac{4065}{930}}} \\ &= \frac{11.45}{\sqrt{4370}} \\ &= \frac{11.45}{2.09} \\ &= 4.48 \end{aligned}$$

**Students' speaking ability in Class VIII.2**

$$Md = \frac{\Sigma d}{N} \quad \begin{array}{l} \text{Md} = \text{Difference in pre-test} \\ \text{N} \quad \text{and post-test scores} \\ \text{N} = \text{Number of students} \end{array}$$

$$Md = \frac{310}{27} = 11.48$$

$$\begin{aligned} \frac{(\Sigma d)^2}{N} &= 3850 - \frac{310^2}{27} \\ &= 3850 - \frac{96100}{27} \\ &= 3850 - 3559 = 291 \end{aligned}$$

$$\begin{aligned} \Sigma X^2 d &= \Sigma d^2 = \Sigma \frac{(d)^2}{N} \\ &= 3850 - 291 \\ &= 3559 \end{aligned}$$

$$\begin{aligned} t &= \frac{Md}{\sqrt{\sum X^2 d}} \\ &= \frac{Md}{\sqrt{N(N-1)}} \\ &= \frac{11.48}{\sqrt{\frac{3559}{27(27-1)}}} \\ &= \frac{11.48}{\sqrt{\frac{3559}{702}}} \\ &= \frac{11.48}{\sqrt{5.06}} \\ &= \frac{11.48}{2.25} \\ &= 5.17 \end{aligned}$$

#### **Students' listening ability in Class VIII.2**

$$\begin{aligned} Md &= \frac{\Sigma d}{N} & Md &= \text{Difference in pre-test} \\ && &\text{and post-test scores} \\ && N &= \text{Number of students} \\ Md &= \frac{345}{27} = 12.77 \end{aligned}$$

$$\begin{aligned} \frac{(\Sigma d)^2}{N} &= 5125 - \frac{345^2}{27} \\ &= 5125 - \frac{119.025}{27} \\ &= 5125 - 4408 = 717 \end{aligned}$$

$$\begin{aligned} \Sigma X^2 d &= \Sigma d^2 = \Sigma \frac{(d)^2}{N} \\ &= 5125 - 717 \\ &= 4.408 \\ t &= \frac{Md}{\sqrt{\sum X^2 d}} \\ &= \frac{Md}{\sqrt{N(N-1)}} \\ &= \frac{12.77}{\sqrt{\frac{4408}{27(27-1)}}} \\ &= \frac{12.77}{\sqrt{\frac{4408}{702}}} \end{aligned}$$

$$\begin{array}{r}
 = \frac{12.77}{\sqrt{6.27}} \\
 = \frac{12.77}{2.50} \\
 = 5.10
 \end{array}$$

### C. Interpretation of Research Results

Based on the calculation results obtained from two aspects, namely speaking and listening skills with 2 classes as objects, namely class VIII.1 with 31 students and class VIII.2 with 27 students, each skill has been known. In this case the researchers used the "t" value to find out the significance of the benefits of duolingo in learning English on these two abilities.

The result obtained from the use of duolingo in class VIII.1 on speaking and listening skills of the "t" value with df 31 at the 0.05/5% level is 2,042, while the results obtained from using duolingo in class VIII.2 for speaking and listening skills of the "t" value with df 27 at the 0.05/5% level is 2,052. The results of each ability show that the students' speaking ability of class VIII.1 is  $5.5 > 2,042$  and their listening ability is  $4.48 > 2,042$ . The students' speaking ability of class VIII.2 is  $5.17 > 2.052$ , while their listening ability is  $5.10 > 2,042$  (the "t" table is each greater than the "t" value). This reveals that the research using duolingo for English learning shows very good results. This means that the use of duolingo to improve speaking and listening skills in junior high school students is proven to be used well.

### IV. CONCLUSION AND SUGGESTIONS

Using technology such as duolingo application certainly can help improve students' English skills specifically listening and speaking skills. It can be seen from the improvement of students' score in the pre-test and post-test in this research. Therefore, teachers are encouraged to utilize this application in language teaching and learning. However, teachers' need to make sure that this application can be used effectively. Another important consideration is related to the use of mobile phone in the classroom as some schools prohibit the use of mobile phone during the lesson.

This research, however, only focuses on finding out the effectiveness of duolingo to improve students' listening and speaking skills in one school. Future research might find out the use of duolingo in different context or involve more schools and students. Investigating the attitude of junior high school teachers and students related to the use of duolingo is another interesting topic to be studied.

### ACKNOWLEDGMENT

A heartfelt gratitude goes to those who have played a role in this research, especially to the Ministry of Research, Technology and Higher Education that have funded this research through Penelitian Dosen Pemula grant scheme.

Our gratitude also goes to the Institute for Research and Community Services of Universitas Muhammadiyah Riau.

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