The Use of Duolingo in Enhancing Students' Vocabulary Mastery at SMA Negeri 3 Bangko Pusako During Pandemic Covid-19

Erfiani
erfiani090@gmail.com
Universitas Islam Negeri Sultan Syarif Kasim Riau

Cut Raudhatul Miski
cut.raudhatul.miski@uin-suska.ac.id
Universitas Islam Negeri Sultan Syarif Kasim Riau

Abstract

Based on the writer's observation in teaching and learning process, the students' frequently encounter obstacles to memorize the words, confuse the meaning of the words, and difficulty in pronunciation. To solve this problem, the writer used a media to improve the students' mastery in vocabulary. The media was using Duolingo. The aim of this research was to find out any significant difference of students' vocabulary mastery between students' taught by using Duolingo and without using Duolingo at SMA Negeri 3 Bangko Pusako During Pandemic Covid-19. This research was a quantitative research by an quasi-experimental design. In this research, there were two classes as a sample, that classes were an experimental class and control class. The populations of this research were tenth grade of SMA Negeri 3 Bangko Pusako was 156 students' which were 30 students as sample of this study using purposive sampling technique. The result of the research showed that the students' on vocabulary mastery in experimental class was very good category and in control class was good category. On the independents sample T-test, the significant value was 0.000 lower than alpha 0.05, which meant the alternative hypothesis (H_a) was accepted while null hypothesis (H_O) was rejected. It means that, there was any significant difference of students' vocabulary mastery between students' taught by using Duolingo and without using Duolingo at SMA Negeri 3 Bangko Pusako.

Keywords: *Vocabulary Mastery, Duolingo, Covid-19*

Introduction

The Covid-19 virus has an impact on all aspects of education (Cooper, Nuland, Mandzuk, & Petrick, 2020) and students need to adapt in language learning to the current situation. One of the important aspect need to be learned by students in learning language is mastering vocabulary. It is because vocabulary takes primary role in four language skills; reading, writing, listening, and speaking (Muddin, 2018). Vocabulary is a core comonent in studying a language and it is very necessary to be known. Some experts proposed various definition of vocabulary. Norbert Schmitt in Setiawandi (2006) states that

vocabulary is a basis a language, it is very important to be master first. In addition, Hornby (1995) explains that vocabulary is the total number of words in a language, all the words known to a person or used in a particular book and subject, list of words with their meanings. When the writer's did teaching practice at SMA Negeri 3 Bangko Pusako, the writer found that students' lack of vocabulary. This is caused by the students' prior knowledge of vocabulary is low. And also, the mastery of each student in memorizing the vocabulary is different. Besides that, the writer found that the mastery of the students in pronouncing vocabulary is bad. Because in pronouncing vocabulary, the students must know how to pronounce vocabulary because English vocabulary is not the same with Bahasa Indonesia in pronouncing vocabulary. And then, the students are confused about the meaning of these words, caused by the different kinds of word classes in English vocabulary, such as noun, pronoun, verb 1, verb 2, verb 3, etc. and the teacher use traditional method in learning vocabulary that make students bored in learning.

However, if students have lack of vocabulary, they will be difficult in learning and understanding material which provided by curriculum. Nowadays, many students are difficult to improve vocabulary because the technique of teaching from the teacher is not interesting and make students feel bored. To overcome it, the teacher should implement suitable media because students' attention also can be drawn by the teachers when they use media. This line with Larsen and Freeman (2002), the teacher should be already had a suitable method for it; provide the media, teaching technique, and strategy because they want their students to be able to use the target language communicatively. The concept of learning in this era has been related to the rapid development of technology, the emerging and developing of technology and its application to teaching comes into full play in education (Jaelani, 2020).

Media is teaching aid to help both the teacher and the students for teaching-learning activity. So, the writer interested to find a new media to improve the students' vocabulary mastery. One of the most popular technology to learn foreign language is Duolingo. Duolingo is good tool to practice and it made English learning process easy according Guaqueta and Castro (2018). Meanwhile Stringer (2016) stated that Duolingo was a good tool to learn language because it was engaging within many different task types which motivated the students to reach their target points and to compete with their friends. The purpose of Duolingo is the user can understand a language and they can use it. In the part of what it provides in learning, the users will know if Duolingo focus on mastering vocabulary. Based on it, Duolingo can be a medium for students to improve their vocabulary and teachers used it in classroom in teaching to help their students in mastering vocabulary.

Munday (2016, p.96) stated that Duolingo is preferred to regular assignments and media because of the convenience it provides, is based on his research. It means that Duolingo is easy to use and more interesting so it will be comfortable to be one of the media that we use in teaching in the classroom. Grego and Vesselinov (2012), did research that sees the effectiveness of Duolingo in learning the language. Their research showed that the students are satisfied in learning a language with Duolingo and they enjoyed learning it. Aulia, Wahjuningsih, & Andayani (2020), Duolingo mobile application has a significant effect for students' English Mastery.

Some research done by Loewen (2019), Abdul Manan (2017), Dezza (2020), Laila Mahmuda (2015), Vesselinov & Groge(2012), Heba Bahjet Essa Ahmed (2016), and Budi Kadaryanto, Rizky Kuenia Wijaya (2016) revealed that Duolingo as a gamified language learning app able to enhance students' vocabulary knowledge that the gamifications function reached their educational objective and assisted learners successfully in their vocabulary improvement. A number of studies above which focus and related to the matter of this study have been conducted earlier. Given some of the studies about Duolingo have been done, there has been no study has ever used Duolingo to enhance the students' vocabulary mastery at Senior High School and carried out during pandemic Covid-19.

Therefore, the researchers wanted to see the significant difference of Duolingo if applied by teachers in teaching vocabulary mastery and how is the students' mastery if applied Duolingo in teaching-learning vocabulary at classroom. By the explanation above, the researcher would like to research by the title "The Use of Duolingo in Enhancing Students' Vocabulary Mastery at SMA Negeri 3 Bangko Pusako During Pandemic Covid-19".

Methodology

The research design applied was quasi-experimental design with pre-test and post-test in experimental and control class. The design was used because the researcher wanted to investigate whether or not there was any significant difference of students' vocabulary mastery between students' taught by using Duolingo and without using Duolingo.

Tabel 1. Research Design

Class	Pre-test	Treatment	Post-test
Experimental (X-SOCIAL 1)	Pre-test	Using Duolingo	Post-test
Control (X-SOCIAL 2)	Pre-test	Without using Duolingo	Post-test

(Creswell, 2012)

This research was conducted in eight meetings for two weeks. The research location was SMA Negeri 3 Bangko Pusako, Rokan Hilir Regency, Riau Provience. The population of this study were the tenth grade of SMA Negeri 3 Bangko Pusako was 156 students' which were 30 students as sample of this study using purposive sampling technique.

Table 2. The Total Number of Sample

No	Class	Students
1	X Social 1 (Experimental Class)	15
2	X Social 2 (Control Class)	15
	Total	**30**

The instrument used for gathering the data were test. In order to collect the data the researcher used multiple choice test consists of 25 questions. Before give the pre-test and post–test for sample the researcher try out a test to be conducted by handing them 15 students who were not included in the research. The try out measures the reliability and validity if test items uses SPSS 20.0. In the first meeting before treatment the researcher

give pre-test in experimental and control class to know their basic mastery in vocabulary. In the second until six meetings the researcher give treatment in experimental and control class with different treatment where in experimental the students' taught by using Duolingo in teaching vocabulary mastery while in control class the students' using without Duolingo in teaching vocabulary. The last meeting was used by researcher to conduct post-test in experimental and control class to know the mastery in vocabulary after applied treatment.

In analyzing the data, the researcher used Independent sample T-test formula which was calculated by SPSS 20.0. T-test was used to know there is any significant difference or there is no significant difference between two or more variables can be analyzed by using independent sample t-test. Based on the formulation of the problems, objectives and the explanation theory in theoretical framework, the writer states two hypothesis as follows:

H_o : There is no significant difference of students' vocabulary mastery between students' taught by using Duolingo and without using Duolingo at SMA Negeri 3 Bangko Pusako During Pandemic Covid-19.

H_a : There is any significant difference of students' vocabulary mastery between students' taught by using Duolingo and without using Duolingo at SMA Negeri 3 Bangko Pusako During Pandemic Covid-19.

Results and Discussion

1) *Students' vocabulary mastery taught by using Duolingo at SMA Negeri 3 Bangko Pusako during pandemic Covid-19*

The results of analysis indicated that the students' vocabulary mastery taught by using Duolingo is categorized Very Good . This is based on the mean score of students' vocabulary mastery taught by using Duolingo, It can be seen in the following table:

Table 3. The Score Classification of Students' Vocabulary Mastery after being taught by Using Duolingo

No.	Categories	Score	Frequency	Percentage
1	Very Good	81 -100	9	60%
2	Good	61 – 80	6	40%
3	Moderate	41 – 60	-	-
4	Low	21 – 40	-	-
5	Very Low	0 – 20	-	-
	Total		15	100%

Based on the table 3, it can be seen that there were 5 categories for students' vocabulary mastery in experimental class. There was 9 students in Very Good category with the percentage 60%, the frequency of Good category was 6 students with the percentage 40%. Based on the explanation above, the researcher concluded that the average score of the students' vocabulary mastery after taught by using Duolingo was at very good category.

2. Students' vocabulary mastery taught without by using Duolingo at SMA Negeri 3 Bangko Pusako during pandemic Covid-19

The results of analysis indicated that the students' vocabulary mastery taught without by using Duolingo is categorized Good. This is based on the mean score of students' vocabulary mastery taught by using Duolingo, It can be seen in the following table:

Table 4. The Score Classification of Students' Vocabulary Mastery taught without by Using Duolingo

No.	Categories	Score	Frequency	Percentage
1	Very Good	81 -100	3	20%
2	Good	61 – 80	12	80%
3	Moderate	41 – 60	-	-
4	Low	21 – 40	-	-
5	Very Low	0 – 20	-	-
	Total		15	100%

From the table 4 above, it can be seen that there were 5 categories for students' vocabulary mastery in control class. There was 3 students in Very Good category with the percentage 20%, and the frequency of Good category was 12 students with the percentage 80%. Based on the explanation above, the researcher concluded that the average score of the students' vocabulary mastery taught without by using Duolingo was at good category.

3. The Significant Difference of Vocabulary Mastery between Students' taught by Using and without using Duolingo at SMA Negeri 3 Bangko Pusako During Pandemic Covid-19

In order to know the significant difference between post-test score in experimental class and post-test in control class, the analysis was continued by using independent sample t-test, as follow:

Table 5. The Result of Independence Sample Tests

				t-test for Equality of Means					
	Levene's Test for Equality of Variances							95% Confidence Interval of the Difference	
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Score Equal variances assumed	.408	.528	2.514	28	.000	3.733	1.485	.692	6.775
Equal variances not assumed			2.514	27.689	.000	3.733	1.485	.690	6.776

Therefore, the results of the data analysis could answer the formulation of the third research question, from the output above, it also can be seen that sig (2-tailed) value is 0.000. It can be stated that 0.000<0.05. It means that null hypothesis (H_o) was rejected, while the alternative hypothesis (H_a) was accepted. It means that there was any significant difference of students' vocabulary mastery between students' taught by using Duolingo and without using Duolingo at SMA Negeri 3 Bangko Pusako Regency Rokan Hilir during pandemic covid-19.

Discussion

Firstly, the indicated that the students' vocabulary mastery taught by using Duolingo is categorized very good. The researcher found that students' taught by using Duolingo in vocabulary mastery had better scores than students without by using Duolingo, this is in line with previous research by Abdul Manan (2017) because the experimental class uses a different method from the control class. So, the final result is different between the two classes. In the control class the teacher teaches vocabulary using a dictionary or traditional method while in the experimental class it is taught using the Duolingo game which can improve students' vocabulary mastery better than the method in the control class.

Second, the indicated that the students' vocabulary mastery taught by using Duolingo is categorized good and treatment in the control class is different from the experimental class, if the use traditional method in learning vocabulary mastery. The traditional method here is to use a dictionary as a medium for students' to mastery vocabulary. Vocabulary learning with traditional methods runs as usual but students' are less interested in learning, student motivation is low, and students' are lazy to pay attention when the teacher explains the subject matter. Meanwhile in experimental class uses Doulingo in learning vocabulary mastery. Where students' are more interested, motivation increases and are happy during the learning process because they use the visual and verbal techniques provided in Duolingo according to Ruth & Stuart Redman (1991) so that students are more interested in learning vocabulary with both techniques which provide illustration images.

And the last, the results show there is any significant difference of students' vocabulary mastery between taught by using Duolingo and without using Duolingo at SMA Negeri 3 Bangko Pusako Regency Rokan Hilir during pandemic covid-19. By applying Duolingo in vocabulary mastery, students will be more interested and challenge since they have to compete with each other. Besides, the students' score in post-test were higher than the students' score in pre-test on experimental class. This means that Duolingo gave a good contribution to the attainment of teaching learning English vocabulary mastery. Mastery vocabulary in this research was successful, the students' vocabulary mastery increased significance difference after being taught by using Duolingo and it helped English teacher to raise the students' interest and motivation in learning English vocabulary mastery, this is in line with previous research conducted by Dezza (2020).

Conclusion

Referring to the results and discussion, finally the researcher would like to concludes that the students' vocabulary mastery taught by using Duolingo at SMA Negeri 3 Bangko Pusako during pandemic Covid-19 is categorized into very good level. Furthermore, the students' vocabulary mastery taught without using Duolingo at SMA Negeri 3 Bangko

Pusako during pandemic Covid-19 is categorized into good level. Based on the explanation above, there is any significant difference in students' vocabulary mastery between students' taught by using Duolingo and without by using Duolingo SMA Negeri 3 Bangko Pusako during pandemic Covid-19.

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