THE EFFECT OF DUOLINGO APPLICATION TOWARDS STUDENTS’ VOCABULARY AT EIGHT GRADE OF SMPN 19 MERANGIN ACADEMIC YEAR 2019/2020

HENGKI ARI WIBOWO
hengkibangko4@gmail.com
STKIP YPM BANGKO

ABSTRACT

Vocabulary is the study of the meaning of words and how the word are used or all the words that a person know or use. Vocabulary, is part of a component in language, and also an important component for students to learn at school because vocabulary is a part of communication to interaction with others. The purpose of the research is to find out the effect of duolingo application in teaching vocabulary at eight grade of SMPN 19 Merangin academic year 2019/2020. The design of this research was quantitative experimental research. The purpose of this study is to identify significant differences between the experimental class (duolingo) and the control class (conventional). Researcher call this research as a quantitative research in kind quantitative experimental research design that involves one only group pre-test and post-test. The population is all of the students from A until D class which consist of 84 students, and each class consists of 21 students. For the sample is D and C classes that consists of 21 students selected by purposive sampling. Then, the instrument for the vocabulary test in this study consisted of twenty questions that had been previously validated from 30 into 20 question in the form of multiple choices consisting of four choices between a, b, c and d, determining the right words and adjusting the correct vocabulary sentences. This test aims to compare the results of the post-test between the experimental class and the control class by using a paired sample T test in SPSS 20.0. Whether effective or not. Based on Independen sample T test on group statistic the main score of post-test of experiment class that is 58.81 is lower than the post-test of control class that is 59.52. Based on the result of independent T-test, Konvensional method is more effective in teaching vocabulary than using Duolingo application in teaching vocabulary. Thus, there was a significant difference.

Key Word: Duolingo Application, Vocabulary
INTRODUCTION

Vocabulary is a set of words owned by someone or another entity, or is part of a particular language. A person’s vocabulary is defined as a set of all words understood by that person or all words that are likely to be used by that person to constructs a new sentence. The addition of one’s vocabulary is generally considered an important part, both of the learning process of a language or the development of one’s abilities in a language that is already mastered. School students are often taught new words as part of certain subjects and many adults consider vocabulary formation to be an interesting and educational activity. Hornby (in Alqahtani, 2015:24) state that vocabulary is a list of words that have meanings and meanings in a particular language.

According to Manik, et al (2016: 2) Vocabulary is a total number of words which with rules for combining them make up a language. Based on the expert opinion above the researcher can concluded : vocabulary is basic element of learning English. This is an important factor in reading, listening, writing and speaking.

In the school vocabulary learn since elementary school until senior high school, we know that the vocabulary in English plays an important role. Usually English teachers in a school or course will teach English vocabulary in their own way or method. There are several principles that must be taught such as defining information about each word, involving children more actively, using some expressions in the vocabulary to make it more meaningful. Usually someone will feel bored if you have to memorize a collection of vocabulary especially if the word is too difficult to memorize or pronounce. Therefore, as a teacher must provide a good definition of a word.

Usually English teachers in a school or course will teach English vocabulary in their own way or method. There are several principles that must be taught such as defining information about each word, involving children more actively, using some expressions in the vocabulary to make it more meaningful. Hammer (1991) Stated as you know, English is a language that has quite a lot of vocabulary and an increase in new vocabulary every day is also pretty good. Many people complain about that too, but what are their efforts, are they just complaining and waiting for time? No. Most of them take courses in English villages and as a result they can become good at English in a short time, instead many of them become tour guides. By using the conventional method, the teaching learning process is only centered on the teacher so that students are less enthusiastic in following the learning process.

Based on the syllabus the student on eight grade must be know to identify social functions, text structure, and elements linguistic interaction text transactional oral and written which involves action give and ask information related to name and number of animals, objects and the construction of a near state with students’ daily lives. To achieve these targets, students must be required to have adequate vocabulary mastery and able to use the vocabulary well. But the fact mastery of student vocabulary still far from expected.

Based on the researcher observation on June 28th, 2019, the researcher found some problems, are the students have difficulty
understanding the meaning of words, pronouncing words and making the sentence in English. These can be seen from the lack of confidence of students because they still fell embarrassed if they are wrong. And than the technique from the teacher still use confentional taching. The researcher also interview with the students of eight grade SMPN 19 Merangin. MDP as student of eight grade and another student said that, vocabulary was difficult because they did not know the meaning. it was because the students were still difficult to memorize so many vocabulary every day. The researcher got the data when they mid semester test at seven grade in academic year 2018/2019, and most of the student score only, 45% reach the kkm with scores 70 – 100, and the remain students 55% unreach the kkm with score below 70 (0-60). Meanwhile, according to KKM (Kriteria Ketuntasan Minimal), the minimum score that should be reach by the student is 70.

Therefore, the researcher wants to see how the effect of Duolingo Application if teacher implemented it in classroom teaching to the students of SMPN 19 Merangin. It will be aimed to see is there any effect on students vocabulary skills using Duolingo. It is expected to be positive atmosphere in the classroom. It is also can be an alternative way to keep the students vocabulary. According to the explanation, the researcher intends to conduct an experimental research entitled: “The Effect of Duolingo Application Towards Students’ Vocabulary at Eight Grade of SMPN 19 Merangin academic year 2018/2019”.

REVIEW OF RELATED LITERATURE

Vocabulary is the study of the meaning of words and how the word are used or all the words that a person know or use. The words that are understood and not used by person are called passive vocabularies, thought active vocabularies are all the words that are used by person. Vocabulary is a set of words owned by someone or another entity, or is part of a particular language. A person’s vocabulary is defined as a set of all words understood by that person or all words that are likely to be used by that person to constructs a new sentence. The addition of one’s vocabulary is generally considered an important part, both of the learning process of a language or the development of one’s abilities in a language that is already mastered.

According to experts by Vocabulary is a set of words owned by someone or another entity, or is part of a particular language. A person’s vocabulary is defined as a set of all words understood by that person or all words that are likely to be used by that person to constructs a new sentence. The addition of one’s vocabulary is generally considered an important part, both of the learning process of a language or the development of one’s abilities in a language that is already mastered. Pronouncing words and making the sentence in English, These can be seen from the lack of confidence of students because they still fell embarrassed if they are wrong. And than the technique from the teacher still use confentional taching.

According to Finocchiaro (1974: 73), pronouncing words and making the sentence in English, These can be seen from the lack of confidence of students because they still fell embarrassed if they are wrong. And
than the technique from the teacher still use conventional teaching, it was because the students were still difficult to memorize so many vocabularies every day. The researcher got the data when they mid semester test at seven grade.

Based on the syllabus the student on eight grade must be know to identify social functions, text structure, and elements linguistic interaction text transactional oral and written which involves action give and ask information related to name and number of animals, Vocabulary is crucial to be mastered by the learner in order to understand the language. Vocabulary mastery is needed to express our ideas and to be able to understand other people’s sayings.

Hornby (1995) as cited in Alqahtani (2015) defined the mastery of vocabulary as complete knowledge or complete skill. From that definition, mastery means complete knowledge or great skill that makes someone a master in a certain subject. Vocabulary mastery refers to the great skill in processing words of a language (Susanto & Fazlinda, 2016). It is an individual achievement and possession (Alqahtani, 2015). Due to Based on the syllabus the student on eight grade must be know to identify social functions, text structure, and elements linguistic interaction text transactional oral and written which involves action give and ask information related to name and number of animals, Vocabulary is crucial to be mastered by the learner in order to understand the language. Vocabulary mastery is needed to express our ideas and to be able to understand other people’s sayings.

Duolingo Application

Duolingo is a free language learning app created by Luis von Ahn and Severin Hacker. This app is not only available in the web version but it is also available in Android. In November 2016, the app provides 66 different language courses available in many languages; there are 22 more courses that are still being developed. English courses for Indonesian users are available and used by 1.39 million users. On the contrary, the Indonesian course for English speakers is still in the development stage. According to Vesselinov and J. Grego (2012), interactive exercises provide immediate feedback to help the student improve English skills on the spot. Continue to be motivated with rewards.

Students can earn virtual coins, open new levels, and see the value of fluency in increasing as students’ ability to master new words, phrases, and grammar. Duolingo provides both written and sound learning, there is also speaking practice for more experienced users. Duolingo has a tree of capabilities whereby the user can complete a chapter later toward another branch of the tree. Users are hitting “experience points” (XP) after they complete a chapter, enough points can raise the user level. The completed chapter will be golden, eventually, if the users rarely practice, the gold color will disappear and the user must complete the chapter. If the user has completed all the chapters in one course they can repeat the exercise (B. Settles and B. Meeder, 2016).

Duolingo can be used by teachers and students. Teachers can monitor the abilities and weaknesses of each
student and help them improve their language skills (De Castro Ana Paula, 2016).

According to International Journal of English Linguistics “uolingo provides both written and sound learning, there is also speaking practice for more experienced users. Duolingo has a tree of capabilities whereby the user can complete a chapter later toward another branch of the tree.” The addition of one’s vocabulary is generally considered an important part, both of the learning process of a language or the development of one’s abilities in a language that is already mastered. School students are often taught new words as part of certain subjects and many adults consider vocabulary formation The addition of one’s vocabulary is generally considered an important part, both of the learning process of a language or the development of one’s abilities in a language that is already mastered. School students are often taught new words as part of certain subjects and many adults consider vocabulary formation expectations.

RESEARCH METHOD

The research is use a quantitative experimental research. According to Christen (1988; 61) experimental research is the technique that attempts to find out cause and effect relationship. This research enables us to identify causal relationship, to observe, under controlled condition, and look at the effect of systematically changing one or more variable. Gay, et.al (2000:240) says that strong about the link between variables.

Based on the experts’ explanation the researcher concluded that experimental research is a technique to identify causal relationship between variables. So, in this research there were two variables that were using Duolingo as independent variable (X) and student’s achievement in vocabulary as dependent variable (Y). In short, the design has been applied in order to investigate the effect of X toward Y. There were two groups in the experimental research, namely control group and experimental group. The experimental group is given treatment by using Duolingo in studying vocabulary while the control group has been not.

The model is use try out-test and post-test only design. Because the researcher convinced both of control group and experimental group is equivalent, they are taught by the same teacher, curriculum material.

Population is the total number of the students on the research. According to sugiyono (2009:117), population is “area of generalization consisting of objects or subjects that have certain qualities and characteristics that have been determined by researchers to be studied and drawn conclusions”. The population of this research were all of eight grade of SMPN 19 Merangin. The researcher choose eight grade as the population and sample because they have studied vocabulary at seven grade. There are four classes: 21 students at class A, 21 students at class B, 21 Students at class C, and 21 Students at class D of eight grade student of SMPN 19 Merangin academic year 2019/2020 as a population. In total number of student whole class is 84 students.

<table>
<thead>
<tr>
<th>No</th>
<th>Class</th>
<th>Students Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VIII A</td>
<td>21</td>
</tr>
<tr>
<td>2</td>
<td>VIII B</td>
<td>21</td>
</tr>
</tbody>
</table>
According to Sugiyono (2016:166) “The sample is a part of the amount owned by the population. Therefore the sample taken from the population must be truly representative”. To determine sample of this study, the researcher choose random sampling technique. Simple random sampling is where each member of the population has the same chance to be sample. The sample is taken randomly without regard to the strata and members consider homogeneous (Sugiyono, 2016: 82).

The sample is determined through this steps:

- a. Collect the score of student at fourth grade students of SMPN 19 Merangin.
- b. Doing normality test of population. The normality of the test is done to see if the population distribution is normal or not. Normality test using Kolmogrov Smirnov, by using SPSS program.
- c. Doing homogenity test of population variance by using SPSS program.
- d. Based on the result of normality and homogenity that can be concluded that the population is normal and homogeneous.

After teaching for four meetings, the researcher has given test to both experiment and control groups. According to Richard (2010: 377) test is any procedure for measuring ability, knowledge, or performance. Hornby (2000:1396), says that test is an examination of somebodys knowledge or ability, consisting of questions for them to answer or to act carry out.

The researcher conclude that test is the way how to know about somebody’s ability or knowledge by giving question, and score for them. Here, the researcher has used multiple choice, with 20 items, the score of the test has been used as the data of this research. The researcher has examined and analyzed student’s answer sheets one by one. The possible maximum score was 45 and minimum score is 20. The correct answer has been given score 1 and be wrong answer is 0. The student’s highest score is 45 and the lowest one is 20. Then the researcher compared the total score of the test gained by the experimental group and control group in order to know whether the analogy technique has the effect or not toward student’s achievement in vocabulary.

The researcher do some steps in teaching vocabularies. There were three main steps that has been done by the researcher in teaching vocabulary to the experimental group and control group.

**Pre test**

The researcher administers a pre-test to find out the student’s vocabulary mastery before being taught using Duolingo application. The pre-test is formulated as T1. Using the test, the researcher gave twenty-five question in the form by multiple choice, specify the nouns and match the picture with the correct vocabulary.

**Treatment**

The researcher applied the experimental treatment to the subjects. The students were taught using
Duolingo application. The experimental treatment is formulated as $X$.

The one-group pretest and posttest design usually involves three steps:

1. Administering a pretest measuring the dependent variable.
2. Applying the experimental treatment $X$ to the subjects.
3. Administering a posttest ($Y_2$) which proposed to measure students’ mastery in vocabulary after given a treatment.

**Post test**

Processing post-test and measuring the dependent variable. Differences associated with an experimental application or treatment are then evaluated by comparing scores between pre-test and post-test (Ary et al, 2010: 303).

<table>
<thead>
<tr>
<th></th>
<th>Explanation</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>True answer</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>False answer</td>
<td>0</td>
</tr>
</tbody>
</table>

Maximum score = 20

Student’s score = 

Getting score x 100 =

Maximum score

A good test is valid and reliable. To make sure it’s validity and reliability should be established. The validity of the test that was analyzed was content validity. To validate the test, the researcher constructed the test based on the curriculum, syllabus and material that is use by the researcher while teaching students as treatment.

To do analysis, the researcher gave a try out to another class. The question for the try out consist of 30 items. Then, to know the difficulty of items, the researcher will use formula suggested by Arikunto (2013:211) as presented below:

Validity Test

According to Arikunto validity is a measure that determines valid levels or invalid an instrument. The researcher did analysis item to determine the whether research instrument valid or invalid. After did once cicle try out with 30 questions for 21 students of eight grade of SMPN 19 Merangin.

The activity was proposed to collect valid question as a research instrument on pre-test and post-test. Which was showed a result 20 question were valid but in time management of the class. For effectivenes researcher concluded to choose 20 question as proposed pre-test and post-test. To measure whether the data valid or invalid, researcher used SPSS program by compared the result with Product moment table. In category of this
research with 21 students in amount categorized as $R_{table} = 0.413$ it means.

\[ If R_{count} > R_{table} = Valid \]

\[ If R_{count} < R_{table} = Invalid \]

Based on analysis above, there 20 questions were valid: Q4, Q5, Q6, Q7, Q11, Q12, Q13, Q14, Q15, Q16, Q17, Q18, Q19, Q20, Q21, Q22, Q23, Q25, Q28, and Q29. And there 10 question were invalid: Q1, Q2, Q3, Q8, Q9, Q10, Q24, Q26, Q27, and Q30. More clear this item can be checked in appendix.

**Reliability Test**

Reliability comes from the word reliability means the extent to which the result of a measurement can be trusted. A measurement result can be trusted if the measurement is done in some time to the same group, but the measurement result remain the same as long as the measurement aspects have not change Matondang (2009: 93).

**Data Analysis**

**Normality**

According to Sujianto (2009: 77) normality distribution test is a test conducted to measure a data that whether the data has a normal distribution or not. To determine its normality, researchers used Kolmogorov-Smirnov One-Sample with SPSS version 20.0.

**Homogeneity**

Homogeneity test was done to ensure that manipulation of data collected in the analysis is actually taken from populations that different from each other. Especially in correlative studies that are predictive in nature, the model used must be in accordance with its composition and distribution. (Sujianto: 112). To find out the normality, researchers used One Way Anova with SPSS Program version 20.0.

Analysis of a data scientific and value (Suprayoga in Tanzeh 2009: 69). Data can be obtained from the results of conducted on and then quantitatively. Quantitative analysis is statistics statistics. The quantitative data of this study were analyzed using statistical calculations. The results of the collected data are then processed by comparing with pre-test and post-test to see if there are significant differences being is differences in student performance giving treatment with the Duolingo application. In this study, researchers used SPSS version 20.0.

Based on the results of the post-test vocabulary data is the average score of vocabulary tests that are taught using the Duolingo application. The first pre-test data is student score data before being taught using the Duolingo application. If the post test on a student's vocabulary achievement test is higher than the pre-test, it means that the vocabulary teaching using the Duolingo application is effective. To get the results of the vocabulary test, researchers gave test students after receiving treatment to teach vocabulary using the Duolingo application. The test consists of twenty questions and consists of multiple choice types. To find out significant differences in students' vocabulary achievements before and after being taught using the Duolingo application, the researchers in this study used paired sample T tests in SPSS version 20.0.
FINDING AND DISCUSSION

The researcher presents the result of data description of eight grade of SMPN 19 Merangin about used Duolingo application as media in teaching vocabulary. The researcher did the research from August 26th 2019, until September, 9th 2019. On August, 26th 2019, the researcher met with Headmaster and English teacher of SMPN 19 Merangin to get permission to do this research at the eight grade of SMPN 19 Merangin.

Before the researcher do this research in experiment class and control class, researcher analyze the instrument whether the instrument is valid and reliable or not before using the instrument to experiment class and control class by using SPSS 20.0 Program.

From the data analysis above, it has proven that using duolingo application as the media of experiment class VIII D in teaching vocabulary has not significant effect on students’ vocabulary achievement. It can be shown from the mean score of experimental group was 58.81 and the mean score of the control class VIII C was 59.52. (see tabel 11 and 12). It means that the mean of control class was bigger than the mean score of experiment class. Based on the results of the study, it was found that students were less motivated to learn English by using Duolingo application.

CONCLUSION AND SUGGESTION

A. Conclusion

Based on Independen sample T-test (see appendix) on group statistic the main score of post-test of experiment class that is 58.81 is lower than the post-test of control class that is 59.52. Based on the result of independent T-test, Konvensional method is more effective in teaching vocabulary than using Duolingo application in teaching vocabulary. Thus, there was a significant difference. using duolingo application as the media is not effective in teaching vocabulary for eight grade VIII D at SMPN 19 Merangin.

B. Suggestion

From the conclusion stated above, the researcher proposes some suggestions to be taken as considerations. Based on the results of the thesis on “The Effect of Duolingo Application Towards Students’ Vocabulary at Eight Grade of SMPN 19 Merangin” researcher provide advice to related parties based on problems, as follow.

1. For the English teachers, it is suggested to try use duolingo application, because actually duolingo is an educational application based on language learning, especially English, which is learned in almost all schools in Indonesia.

2. For students to keep using duolingo application at home in learning English especially to improve vocabulary skill. and don’t forget to take a rest after using a smartphone.

3. For other researcher, the result of this research can be used as reference and source of information for the next research because this thesis has relevant research.

4. For STKIP YPM Bangko, it can be the reference for students of STKIP because this research has been
proven even though there is no significant effect.

BIBLIOGRAPHY


