

THE EFFECTIVENESS OF DUOLINGO APPLICATION AS TEACHING LEARNING MEDIA IN THE INTRODUCTION OF ENGLISH PRONOUNCATION

(A Quasi Experimental Research at SDN IV Cilegon)

Annisaul Maskuroh

Universitas Islam Negeri Sultan Maulana Hasanuddin Banten, Indonesia

Abdul Muin

Universitas Islam Negeri Sultan Maulana Hasanuddin Banten, Indonesia

Anita

Universitas Islam Negeri Sultan Maulana Hasanuddin Banten, Indonesia

Abstract

This study aims to reveal the teacher's strategy in Pronunciation in SDN IV Cilegon. This research investigates teaching with learning media using Duolingo application at the young learner of SDN IV Kota Cilegon, the aims of the research are: to know students pronunciation ability in SDN IV Kota Cilegon to know the application of Duolingo application as Teaching media in introduction of English Pronunciation, and to know the effectiveness of Duolingo Application as media learning to teaching student pronunciation. The subjects in this study were English teachers who taught English in class Five A and B. The object and specificity of this research has led to the teacher's strategy in teaching Pronunciation ability. Method used for this research is A Quasi experimental with two classes, called experiment and control class using pre-test and post-test technique.

INTRODUCTION

Education is essentially one of the necessities in human life, because education can improve the quality of human resources in order to achieve an advanced and prosperous life. As stated in Law No. 20 of 2003 article 1 paragraph 1 concerning the National Education System, namely education is a conscious and regulated effort to create a learning environment and educational experience with the intention that students can effectively increase their ability to have knowledge in religion, calm, strength, noble character, and other abilities without help from other people, society, nation and state. According to Yolanda Saviraningsih (2022) Technological improvements are currently growing and have provide many benefits to humans. An example of the development of technology in the field of communication is Smartphone.

According To Arizona currently, social media is an active tool used for teaching and learning purposes, especially in the world of education during a pandemic as it is today. In online-based learning, it automatically requires media as a means of teaching and learning. Teachers must use interesting media so that students will be interested in the learning process in the classroom. Online media, such as Duolingo which teaches five elements in the learning process speaking, reading, writing, listening and also Pronunciation. Media like this should be seen as a very important educational technology. One of the advantages of using the internet is to promote active learning where students are not passive recipients of knowledge. In this era of pandemic learning is not only through books. but it can also be via the internet like this Duolingo web.

Pronunciation is one of the most important skills in EFL classes. Because mispronunciation can change the meaning of a word, knowing how to articulate and state a sound or phrase in English is critical. Researchers, teachers, and students learning English as a second language or as a foreign language are focusing more on pronunciation, as well as other abilities like spelling, vocabulary, grammar, and other fundamental skills. Pronunciation instruction is essential in EFL/ESL classes.

One of the most important requirements for language proficiency is that learners understand how to pronounce the language. One of the most important requirements for language proficiency is pronunciation be understood by the language students. In order to increase their efficiency when teaching pronunciation, EFL/ESL instructors are thought to need to be prepared with a variety of subjects and materials. Pronunciation is the process of speaking a language or sound. Good pronunciation is required to make the speaker talk more fluently and easily understood. Students are expected to be able to pronounce text or language with proper pronunciation in the context of the language. Non-native pupils, on the other hand, typically have difficulties pronouncing English because it is not their first or second language. Abbas 2011:74) To overcome the major challenge of second language pronunciation, they must get adjusted to shifting the conceptual patterns of their first language that they have had since childhood.

Many students improve their pronunciation skills by using phonetic transcription found in dictionaries, yet this method is ineffective since pupils do not know how to interpret the phonetic transcription. Suci maharani (2017:96) stated, one of the characteristics of speaking ability is pronunciation. Students, particularly those from Indonesia, face difficulties with pronunciation because English is not their first language. Pronunciation is concerned with appropriately producing a word's utterance as it is often used and as a word or language is typically spoken.

According to harmer (2007), there are problems in pronunciations, they are: 1) what student hear, 2) what student can say and 3) intonation problem. Based on the study conducted by the researcher at five grade students as SDN IV Cilegon, the problem that students faced was their lack of attention to the lesson, which affected their pronunciation, as they had difficulty pronouncing English words and were still confused to read with a good pronunciation. After learning about the students' difficulties with pronunciation, the researcher should assist them in resolving their issues. Using an effective strategy in teaching and studying English is one way to assist students. There are numerous approaches and techniques for efficiently teaching English. In the Duolingo application is one of the alternate ways that can be used. As a result, it is predicted that by employing this strategy, students will be able to pay greater attention to the lesson and will not become bored as readily In any language classroom.

THEORETICAL SUPPORT

Pronunciation includes the role of individual sound segments, they are, segmental and suprasegmental characteristics like as stress, rhythm, and intonation. According to Jack Richard (2000), Stress and rhythm, intonation, pitch variation, and volume are all prosodic qualities of language that must be addressed, as well as teaching learners how to generate specific sounds.

Pronunciation is a key aspect of language, especially when speaking smoothly. The phonology of language, or the meaningful perception or production of a language's sound, and

how it shields the listener, according to Burn and Claire. In communication, pronunciation is crucial because it allows a native or non-native speaker to understand the meaning. The quality of a discussion is determined by how well it is pronounced. Devi Mutlasih (2015:294) said that There is no distinction between the writing and the pronunciation of words in Bahasa Indonesia, however it differs from English. For example, “thank” students pronounce /tang/ or /sang/ while the correct pronunciation is /θæŋk/, “mother” is pronounced /madər/ while the correct pronunciation is /mʌðər/, “the” they pronounce /de/ while the correct pronunciation is /ðə/. In Bahasa Indonesia, there are no interdental sounds. The students have a hard time imitating the sounds.

According to Devi Mutlasih (2015:294), There are several reasons why pronunciation is significant. For example, improved pronunciation indicates that pupils' categorical perception of sounds has grown more native-like. This means they are more likely to not just talk in a native-like manner, but also to recognize which sounds in words are native to them (i.e., improved reading aloud) These beliefs can be deduced from the act or manner of pronouncing syllables, words, and phrases in connection to sound generation, stress and intonation placement, and how we pronounce or make sounds from words that provide meaning.

Pronunciation instruction and learning have a connection but play different roles. Teachers want students to be able to pass through the pronunciation ability that comes from their capacity to communicate when teaching English, especially pronunciation, in the beginning levels. The advanced levels, on the other hand, allow students to concentrate on aspects that improve communication.

Based on the notion of media that we have previously understood, learning media is defined as anything that is used to convey messages and can stimulate students' thoughts, feelings, concerns, and willingness so that they can encourage intentional, purposeful, and controlled learning processes. The same thing was conveyed by Suryani and Agung (2012) that learning media is media used in learning, which includes teacher aids in teaching and means of conveying messages from learning sources to recipients of learning messages (students in line with Briggs (1970) who stated that media learning is a means to provide stimulation for students so that the teaching and learning process occurs, Sanaky (2013) defines learning media more briefly, namely a tool that functions and can be used to convey learning messages. In line with that, learning media is a tool that functions to explain part and all of learning programs that are difficult to explain verbally (Musfiqón, 2012). In other words, a learning media can be used as the main media used for the entire learning process or as a complement or supplement only.

To teach pronunciation the teacher needs to use media and one of the media is Duolingo Application, Duolingo is a free English learning media application created by Luis von Ahn and Severin Hacker. This learning media provides various ways to learn English starting from reading, writing, listening, and speaking. According to Ignacio Garcia (2013:19) Duolingo learning media applications are very practical and efficient to help the process of learning English. Duolingo was launched in June 2012. Behind Duolingo there is a team headed by Luis von Ahn, a renowned computer scientist at Carnegie Mellon University.

Duolingo is an application that aims to help us learn different languages online. Duolingo is available in the form of an application and an internet website. To access the Duolingo

application, we can download it on the phone with a size of 18.83 MB. Duolingo is available in various levels. If you are a beginner, you can choose a beginner level which provides basic material about the language you want to learn. Meanwhile, if you know some vocabulary and sentences, then to determine the right level, Duolingo has provided a feature to take quizzes and find out your level of language skills.

In a study on the Duolingo application, Vesselinov and Grego (2012) choose Spanish as one of the most popular languages. And from the study, found that the increase in users with the target language, Spanish, increased significantly over eight weeks and that the main factor for the higher effectiveness was the motivation of the participants. In starting learning activities, it definitely takes intention and motivation. Motivation plays an important role in all the activities we will do. If we do something without motivation, what we do will feel very bored because there is no enthusiasm. There are some differences in the progress according to the age group and the 31 – 40 years old group has the highest result but the difference is statistically not significant. There is an expected difference between education group and Master/PhD group have highest progress report but these the difference is statistically not significant.

Application in teaching process is this application must always be connected to the cellular network and if you want to use this application in the classroom there must be some supporting electronic equipment such as infocuss and laptop because if this application is used in the learning process in schools, students are not allowed to carry cellphones or electronic equipment. While the disadvantage of Duolingo is that Duolingo uses a computerized sound system for its listening practice. So that students are not introduced to how the original sound of a language speech. Because the system voice sounds pitchless, unlike native speakers. Duolingo also does not provide any description of the grammatical structure as part of its dashboard meanwhile, grammar is an important part of language learning, which makes it difficult for students to complete homework.

This application can be accessed easily via a phone or laptop. Duolingo was released with various features such as listening, writing, new vocabulary, making sentences, and translating a word or sentence. This application can also connect with friends. The interface is clear and very easy to use. There is also a good balance between translation, listening, word matching and oral practice. The speech recognition program is not bad, students can still hear what the speaker is saying.

METHOD

The researcher used a quantitative technique in this study. According to Creswell (2009:195), A quantitative approach is one in which the investigatory primarily uses this technique for developing knowledge (i.e., cause and effect thinking, reduction to specific variables and hypothesis and questions, use of measurement and observation, and the test), and collects data on predetermined instruments that yield statistics data. Jack (2006:267) said that experimental research is one of the most powerful research methodologies that researchers can use. many types of research that might be used, the experiment is the best way to establish cause and effect relationships among variables. Yet experiments are not always easy to conduct.

The researcher utilized a quasi-experimental design in this investigation. Because population availability is a factor, a quasi-experimental approach was used. The investigator employs control and experimental groups in a pseudo experiment, but does not allocate

subjects to groups at random; instead, they may be intact groups available to the researcher. All experiments involving at least a treatment, an outcome measure, units of assignment, and a comparison from which change may be deduced and hopefully assigned to the treatments are referred to as experiment research.

The population in this study were students in the Five grade at SDN IV Cilegon in the academic year 2022/2023, from class five A and class five B, with a total population of 76 students. The researcher sampled two classes from SDN IV Cilegon, each of which had 38 students.

In this study, cluster random sampling was used as the sampling method. When compiling a list of the elements that make up the population is impracticable or impractical, cluster random sampling or sample area (group) is ideal 36 The experimental and control classes of SDN IV Cilegon were discovered to be class five A and Five B Each class has 38 pupils in it. Class Five B will be the control class, which will be taught using the traditional way, and Class Five A will be the experiment class, which will be taught using Duolingo Application.

To collect the data the researcher used pre-test, treatment, post-test, and documentation. So, to analyze the data the writer used t-test formula. According to Annas Sudijono (2008:324) The two classes are compared to the independent variable, the experiment class is X variable and the control class is Y variable.

RESULT AND DISCUSSION

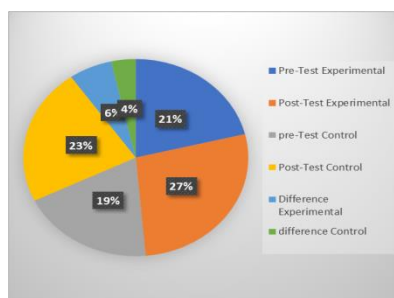
A. Research Result

1. The Data of the Experiment Class

According to the results of the experiment class's pre-test and post-test, the lowest pre-test score was 30 and the best score was 80. In the meantime, the lowest post-test score was 40, and the highest score was 90. The pre-test mean was 51,7 and the post-test mean was 66,9. As a result, the difference in mean from pre-test to post-test for the writer was 15,2. Based on the discrepancies between the students' pre-test and post- test scores, it can be inferred that employing the Duolingo application had a good effect on improving students' English pronunciation.

2. The Data of the Control Class

According to table 4.2, the lowest pre-test score was 20 and the highest pre-test score was 80, with an average pre-test score of 46,9. Aside from that, the average post-test score increased to 54,8. The highest post-test score was 85, while the lowest was 25. As a result, the conclusion is that the Duolingo application as teaching learning media can improve students' English pronunciation, as seen by the table, which shows that the experiment class had higher differences scores than the control class.



This chart describes the results of a study comparing the effectiveness of an experimental intervention in a treatment group compared to a control group. The pre-test results showed that the experimental group had a score of 21% and the control group had a score of 19%. After the intervention, the experimental group had a post-test score of 27%, while the control group had a score of 22%. The difference in means between the pre-test and post-test scores in the experimental group was 6%, indicating an improvement in performance, while the difference in the control group was 4%. These results suggest that the Duolingo Application had a greater impact on improving students pronunciations in the experimental group compared to the control group.

3. The Comparison between the Experiment Class and Control Class

According to the data gathered from the results, the square score of the experiment class compared to the mean of difference score was 580 and the square score of the control class compared to the mean of difference score was 330. As a result, the writer concluded that using the Duolingo application is more effective to improve pupils' English pronunciation.

4. Data Analysis

Determining t-table in significance level 5% and 1% with Df = 74, Significance level 5% of df 7,4 is 1,66, Significance level 1% of df 7,4 is 2,37.

Based on these calculations, it is known That $r^2 = 75$. Than the interpretation is High. It can be concluded that the magnitude of the effect of the Duolingo on the Five grade of SDN IV Cilegon is high with a classification of 75. It can also be concluded that there is a big difference between learning to read with the Duolingo and learning to read with the conventional method.

B. Discussion

The mean of the pre-test 51,7 before employing Duolingo Application is described in the data obtained from 38 students in the experimental class. The mean of the post-test was 66,9 after the writer used to improve pupils' English pronunciation four times for the experimental class. As a result, the writer received a gain score of 15,2 on average. In the pre-test, the lowest score was 30 and the highest score was 80. The statistics revealed that the lowest score was 40 and the best score was 95 in the post-test. In summary, the lowest and highest scores in the post-test were higher than in the pre-test.

The writer then calculated the mean of the pre-test 46,9 from the description of score in the controlled class. The writer did not teach the students Duolingo application in this lesson, but rather a theory of English pronunciation. The writer received a mean of 54,1 after giving four sessions without employing Duolingo application. The average gain score for the writer was 8,6. In the pre-test, the lowest score was 20 and the highest score was 80. The statistics revealed

that the lowest score was 25 and the best score was 85 in the post-test. In summary, the lowest and highest scores in the post-test were both higher than in the pre-test.

The final calculation was testing the hypothesis. This was the main calculation to answer the problem formulation of this research that whether there is significant different between students' English pronunciation at controlled class without using Duolingo application and students' English pronunciation at experiment class which using Duolingo application. The writer used t-test formula in the significance degree. The value of the t_0 was 7,4 with the degrees of freedom (df) was 74. In this research, the writer used the degree of significance in the level of 5% and 1% which in the table showed that the level 5% of df 74 was 1,68 and 1% of df 74 was 2,3. So, the result was $1,68 < 2,4 < 7,4$. It means that the alternative hypothesis (H_a) is accepted, and the Null Hypothesis (H_0) is rejected. In addition, there is a significance difference between students' English pronunciation by using Duolingo application and without Duolingo application.

From the data above the students in experiment class and control class. The experiment class had higher score in the aspect of pronunciation, but this was happened after the writer gave them the treatment. Before it, they very lack about that. Because of control class was not given treatment, almost of pronunciation aspects they lacked. The writer awarded also that pronunciation is important in English skills. there were the advantages in using Duolingo application, it increased the interaction between the students and teacher.

Based on observation at five grade students as SDN IV Cilegon, the the researcher found some problems they are that students faced was their lack of attention to the lesson, which affected their pronunciation, as they had difficulty pronouncing English words and were still confused to read with a good pronunciation, but after the researcher conducted the research, the result show that Duolingo Application can solve students problems in pronunciation.

Based on previous study and this study, It can be seen the similarity of the research finding, the study from Dezza Yuanda Utami (2020), the result show that the Duolingo application is more effective to improve pupils' English pronunciation. There are several aspects of language that improved to students' after using Duolingo application in learning English, which are, the students easy to know and memorize the vocabulary; better in pronunciation; better in grammatical rule; and make student easy to master the English skills. The students showed that the positive aspects of Duolingo application can give a lot of benefits to them. Therefore, the use of Duolingo application needs to be applied in language learning to help the students improve their language learning activities.

CONCLUSION

Based on the result of the data analysis, the researcher made some conclusion as follows:

The students' pronunciation before using Duolingo as a learning media. it can be seen from the data calculation of pre-test in experimental class and control class. The researcher got the data in experimental class, the highest score of pre-tests is 80 the lowest score is 30 and in control class, the highest score of pre-test is 80 and lowest score is 20. Meanwhile, the mean of experimental class is 51,7 and in control class is 46,9 In order word, before applying Duolingo Application in pronunciation in experimental class has still low to improving students' pronunciation using Duolingo Application.

Pronunciation using Duolingo Application is an effective media to be used in students' speaking in SDN IV Cilegon. It can be seen from the data calculation, it showed that to was 7,4 with the degrees of freedom (df) was 74. In this research, the writer used the degree of significance in the level of 5% and 1% which in the table showed that the level 5% of df 74 was 1,68 and 1% of df 74 was 2,3. So, the result was $1,682,4 < 7,4$. It that the alternative hypothesis (H_a) is accepted, and the Null Hypothesis (H_o) is rejected. In addition, there is a significance difference between students' English pronunciation by using Duolingo application and without Duolingo application.

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