

The Effectiveness of “Tell Me What is it” Android Application to Enlarge Elementary Students’ Vocabularies about Anatomy of Human Body

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ABSTRACT

In an education context, smartphones can be used to access the application that useful for learning material about vocabulary, especially for elementary students. This research aimed to see the effectiveness of “Tell Me What is it” android application in enlarging elementary students’ vocabularies about the anatomy of the human body. Using quasi-experiment, the students in 5A and 5B in a private Islamic elementary school Bukittinggi were chosen as the research subject. The android application was applied in 5A as the experiment class, and the conventional method was used in 5B as the control class. The data were collected through tests and questionnaires and analyzed by T-dependent and independent test Sample T-test. The result of this result found that “Tell Me What is it” android application was more effective in enlarging the students’ vocabularies related to the anatomy of the human body than the conventional method. Moreover, most of the students liked the application because it was easy to use, and they felt happy when learning English with application and wanted to learn English more.

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1. INTRODUCTION

English is an international language that is used in most of the countries in the world. In Indonesia, English is a foreign language. It should be learned to start from elementary school. Learning English in elementary school is expected to create quality human resources who can compete in globalization era from an early age (Hartin, 2017). In other words, as a foreign language, the students in elementary school should learn English in order to make prepare them to be able to compete internationally.

Along with the development of technology and communication today, a smartphone has become a necessity that cannot be abandoned by both adults and children. Smartphone has many functions, such

as for entertainment, finding information, doing business and others. Because smartphones have reached various levels of society, efforts to improve people's quality of life need to be made. It means that smartphones can be used for educational media. One of them uses an Android-based application to learn English vocabulary. It is hoped that it can be one of the sources of learning besides textbooks (Puluhulaw, Yulan M, Saud Indah Wardaty, 2019). According to Celik & Yavuz (2018), learning by Web 2.0 allows students to learn everywhere and anytime without limitation. This idea is also supported by Wibowo (2020), who said that android-based learning makes students easy to access where and when they need it. Android-based learning will make both the students and teachers more convenient to learn and share materials because there is no limitation on it. Moreover, Wang (2017) stated that there are some benefits of android-based learning (mobile learning). They are the information is easy to share, the learning can be done without obstacles, the learning is real, and the portfolio is easy to collect. In other words, android-based application is one of the technology developments that can be used as innovation in teaching and learning process because it has many benefits on it.

Furthermore, vocabulary is the basic part of learning a language. It is supported by Basal et al. (2016), that explains that vocabulary is the base core in comprehending and developing a language. According to Susanto (2017), vocabulary is a central point in the teaching and learning process and it is also become the important part that the students should master. Therefore, great efforts are needed to find the best technique to learn it. This opinion was also expressed by Alzahrani (2015), who said that vocabulary makes the students comprehend the target language effectively and may help them to understand what they are reading and listening for. This material should be learned at the beginning level of study or in elementary school. By doing it, the students easy to continue their skills to the next level, such as listening, speaking, reading, and writing (Adi et al., 2020). In short, vocabulary is one of the basic parts of learning a language for a beginner. By mastering the vocabulary, it is easy for the students to learn other language skills such as listening, speaking, reading and writing.

Based on the 2013 curriculum for elementary school, the material about vocabulary, phrases and sentences about human anatomy is studied in grade 5 semester 1. This material is important material to learn because it is close to students' daily life. They can see and feel it directly in their body. At the end of this lesson, the students are expected to understand the material and be able to apply it well. Examples of the vocabularies are head, eyes, cheek, chin, lips, hand, fingers, nail, legs, heel and others. Because of this target, an effective teaching and learning process needs to be done in order to make the students master that vocabulary. One of them is by utilizing the technology that is close to the students (smartphone). Smartphones can be used to access an application that can support the teaching and learning processes. By using the application, the students are easy to learn the material well. *Tell Me What is* is different from the previous application because of some reasons. First, this application is easy to use for elementary students. This application contains some features that can help the students to operate it. Second, this application is colourful so the students are interested in accessing the application. Third, this application also includes some quizzes that can help the students assess their understanding of the materials. In short, this application is expected to make the students to master the material about vocabulary. This application is different from the previous applications that had been used to learn this vocabulary.

According to the results of distribution data of elementary schools in Bukittinggi, "J private Islamic Elementary School " is the oldest and the 4th largest private school in Bukittinggi, accredited A from 65 existing private elementary schools. This school is a pilot school in the development of the learning system. Therefore, researchers are interested in conducting research on the effectiveness of this designed application in order to increase students' vocabulary understanding of the anatomy of the human body. It is hoped that it can become a model for other elementary schools, both public and private, in Bukittinggi.

Learning English in elementary schools in Bukittinggi still uses printed books, modules or worksheets. Students will read and look at the pictures and then try to pronounce the vocabulary in front of the teacher. Until now, there is no learning method that uses applications to deliver English subjects. However, it would be better if the learning method was modified with a combination of digitization. This research modified the Android smartphone application that can be used in learning vocabulary for

students in elementary school about the anatomy of the human body and determined the effectiveness of the application. In addition, besides playing, the students can also learn with their smartphones. Because of that applications for learning vocabularies need to be designed.

Many studies have been conducted in order to determine the effectiveness of smartphones in learning English vocabulary. First, research was done by Razaq et al. (2022). In this research, they found that mobile smartphone was efficient for increasing first-year students' vocabulary in MTs Putra 1 As'adiyah Sengkang. The researchers asked the students to use *Learn and Play English* game on their smartphones and they assessed their posttest after playing that game. The mean score of the students' vocabularies improved from 49.00 to 79.24. Second, utilizing the smartphone also did by Jaya et al (2020). They developed an android application for English vocabulary learning for primary school students and found that this application was effective and strongly suggested use to support teaching and learning activities for vocabulary. Moreover, the smartphone application (VocApp) designed by Badroeni, et al. (2022) also significantly improved students' skills in bulding vocabulary. The researchers created the application for SMP Negeri I Kuningan with a total of 29 students. The result of this research obtained the pre-test (before using the application) showed the lowest score of students was 20, and in the post-test (after using the application) was 28. The highest score on pre-test was 88 and in the post-test was 92. Next, Nugroho et al. (2021) used the HelloTalk application to teach English vocabulary. HelloTalk is a conversation-based mobile-assisted language application that claims to make cultural immersion, and language learning easy, engaging, and intuitive practices. This application allows users to synchronously connect and chat with native speakers from all around the world. This application could improve students' vocabularies mastery. Before using this application, the students felt hard to memorise the words and after using it, the students could memorize it well and faster. There are many advantages of the application for the students. Moreover, from the teacher's side, the use of a smartphone also helps the teacher in the teaching and learning process. Based on the result of the research which was conducted by Kadwa & Alshenqeeti(2020) showed that 84% of the teachers considered that smartphone was an effective tool for teaching vocabulary. This finding was in line with Poláková & Klímová(2020), who stated that mobile learning applications also might help the teacher to access the students' achievement easily and observe them in an authentic and informative way.

This research focused on teaching vocabulary through *Tell Me What is It* application. This application is more interesting by including features such as real and clear pictures, clear sound, interesting colour, and various quizzes to make the students understand the topic more. Second, this application was easy to operate than the others application. It included the steps of running the application that guided the students to run it well. Then, it was easy for the students to measure their understanding of the materials because the quizzes also consisted of the points the students got in every level. Last, this application was also more challenging to play because there is counting time for the students to complete each number of quizzes. It would make the students challenged to learn English more by using this application. These reasons also make this research different from the previous research.

Next, this research was also expected to contribute theoretically and practically to EFL teachers and learners. Theoretically, this study is expected to enrich the existing theories about learning vocabulary about the anatomy of the human body by taking advantage of smartphone development by using applications that it can be used as a reference for other researchers who want to conduct further studies. Practically, this study can help EFL teachers and students find better strategies that can be used to enlarge their vocabulary as a basic part of learning a language.

Based on the explanation above and the reality found in the field, it was interesting to research the effectiveness of the "Tell Me What is It" android application in enlarging elementary students' vocabulary about the anatomy of the human body.

2. METHODS

The type of this research was quasi-experiment by using pre and post-design approaches. The population was all students of grade 5A and grade 5B at Jam'iyatul Hujjaj Elementary School Bukittinggi, totalling 69 students. By using accidental sampling, class 5A consisting of 34 students, and class 5B consisting of 35 students, were chosen as the samples of this research. Class 5A was chosen to be the intervention class where the researcher applied the android application "Tell me What it is" in learning vocabulary about human anatomy in English subject. Then, Class 5B applied conventional techniques in, which this class only used textbooks and lecture methods. Before applying those methods in those classes, they had been given the pretest first to see their basic knowledge about the material about the anatomy of the human body. Then, they were given one week to learn the material through application for class 5A and by lecturing and textbook for class 5B as the control class. After one week, both of the class had posttest to assess their vocabularies mastery after applying two different teaching and learning methods. Moreover, in class 5A as the intervention class had been distributed a questioner to know their point of view about the application that they had been used for about one week. In short, there were two instruments used to collect data in this study, namely, a vocabulary mastery test and a questionnaire.

A multiple-choice test was done to find out how well people knew their words. It means that based on the picture, the students had to choose the best answer. For the questioner, the students answer the questions based on their experience with the app by crossing yes or no in the questioner. The validity and reliability of the test questions and surveys had been checked out first. The test was given out twice (before and after). It means that before the students could use the app, they had to take a test for class 5A (the intervention class), and after a week of using the app, they had to take another test and fill out a questioner. Class 5B (the control class) was also asked questions. Last, the T dependent and independent T-Test was used to look at the data.

3. FINDINGS AND DISCUSSION

After looking at the facts, the following can be said about the results:

3.1. Univariate Analysis

3.1.1 The average score vocabulary mastery before and after using the application in an intervention class

Table 1. The Average Score Vocabulary Mastery Before and After Using the Application in Intervention.

| Vocabulary Mastery | N | Mean | SD | Min-Max |
|--------------------|----|-------|-------|---------|
| Before | 34 | 60.59 | 13.24 | 30-80 |
| After | | 95.59 | 5.04 | 90-100 |

Table 1 displays the students' vocabulary mastery in intervention class before and after using the application. From this table, it can be seen that from 34 students, the average score before using the application is 60.59 with a standard deviation 13.32 and the minimal score is 30 and the maximal is 80. Then, after using the application, the students' score is high. The average score is 95.59, the standard deviation is 5.04, the minimum score is 90, and the maximal score is 100.

3.1.2 The average score vocabulary mastery before and after using the conventional method in the control class

Table 2. The Average Score Vocabulary Mastery Before and After Using the Application in Intervention.

| Vocabulary Mastery | N | Mean | SD | Min-Max |
|--------------------|----|-------|-------|---------|
| before | 35 | 60 | 15.71 | 20-90 |
| after | | 77.14 | 8.93 | 60-90 |

The results of the students' vocabulary tests in the control class using the traditional technique are shown in Table 2. The data show that out of 35 students, the average score before using the traditional technique is 60, and that after the intervention, the average score is 77.14, with a standard deviation of between 15.71 and 8.89. Then, the least and maximum scores in the control group, before and after applying the usual method, are, respectively, 20 and 90.

3.2. Bivariate Analysis

3.2.1 The different average score vocabulary mastery before and after using an application in intervention class

Table 3. The different Average Score Vocabulary Mastery Before and After Using the Application in Intervention Class.

| Vocabulary Mastery | N | Mean | SD | Mean Difference | P-Value |
|--------------------|----|-------|-------|-----------------|---------|
| before | 34 | 60.59 | 13.24 | -35 | 0.000 |
| after | | 95.59 | 5.04 | | |

Table 3 describes the average scores of students' mastery before and after using the application in intervention class. Based on this table, the average score vocabulary mastery before using the application is 60.59 with standard deviation was 13.24, Then, the average vocabulary mastery after using the application is 95.59 with a standard deviation is 5.04. The different score before and after using the application is 35. It means that there is an increasing score of vocabulary mastery before and after using the application. After that form statistics test result found that $p\text{-value} = 0.000 < 0.05$. It indicates that H_0 is rejected. In short, there is a different score related to vocabulary mastery before and after using the application in intervention class.

3.2.2 The different average score in vocabulary mastery before and after conventional method in control class

Table 4. The different Average Score Vocabulary Mastery Before and After Using Application in Intervention Class.

| Vocabulary Mastery | N | Mean | SD | Mean Difference | P-Value |
|--------------------|----|-------|-------|-----------------|---------|
| before | 35 | 60 | 15.71 | -17.14 | 0.000 |
| after | | 77.14 | 8,93 | | |

Table 4 shows that, prior to using the usual method, students averaged a score of 60 on a test of their vocabulary knowledge, with a standard deviation of 15.71. Next, after the traditional approach, the average vocabulary mastery score is 77.14 and the standard deviation is 8.93. The difference between the original and new scores is 17.14 points. This suggests that both before and after the traditional technique, there is an increase in vocabulary mastery scores. In addition, the p-value in the

statistical analysis was revealed to be 0.000 0.05. It's a sign that H_0 isn't accepted. In conclusion, the results of the control group before and after using the traditional approach yield different scores for vocabulary knowledge.

3.2.3 The different effectiveness of applying application and conventional methods toward vocabulary mastery in intervention class and control class

Table 5. The Different Effectiveness of Applying Application and Conventional Method toward Vocabulary Mastery in Intervention Class and Control Class.

| Vocabulary Mastery | N | Mean | SD | Mean Difference | P-Value |
|--------------------|----|-------|------|-----------------|---------|
| Intervention Class | 34 | 95.59 | 5.04 | 18.44 | 0.000 |
| Control Class | 35 | 77.14 | 8.93 | | |

Based on Table 5, the average score for vocabulary mastery in intervention class where the application is given is 95,59 with a standard deviation is = 5,04. Then, the average score for vocabulary mastery in convention class that applied the convention method is 77,14 with a standard deviation is 8,93. It means that there is a different score in the intervention class and control class around 18,44. It is implied that both of classes have increasing scores. It can be proven from statistical test results with p-value = 0,000 < 0,05. It can be concluded that H_0 is rejected. In short, both of class is effective in increasing students score in vocabulary mastery. However, the intervention class is more significant raising that the conventional method. In short, applying application is more effective that the conventional method.

3.3. Results of the Questionnaire

There are three indicators concerning the application that may be evaluated based on the data from the questioner that was given out to 34 students in the intervention class. They include the app's aesthetic, the app's usability, and the students' renewed interest in learning English as a result of using the app. The results are summarised in the table below.

Table 6. The Students' Opinion about the Application.

| No. | Questions | Yes | No |
|-----|---|-------|-------|
| 1. | Is this application interesting? | 97.1% | 2.9% |
| 2. | Does this application make you bored? | 5.9% | 94.1% |
| 3. | Do you like the design of this application? | 97.1% | 2.9% |
| 4. | Do you like the color of this application? | 85.3% | 14.7% |
| 5. | Can you hear the sound of this application well? | 91.2% | 8.8% |
| 6. | Can you use this application well? | 97.1% | 2.9% |
| 7. | Is this application difficult for you to use? | 14.7% | 85.3% |
| 8. | Do you find it helpful in learning English by using this application? | 97.1% | 2.9% |
| 9. | Do you like to learn English by using this application? | 97.1% | 2.9% |
| 10. | Do you want to use this application again to learn English? | 97.1% | 2.9% |

Based on the questionnaire above, it can be analyzed that 97.1%. Of the students said that the application was interesting. Only 5.9% stated that this application makes them bored. After that, 97.15% of the students liked the design of the application. Then, 85.5% of the students liked the colour that applied in that application and 91.2% of them could hear the sound well. Moreover, most of the

students (97.1%) could use the application without finding difficulties. Moreover, there were 97.1% of the students said that this application was very helpful for them to learn English and they liked to learn English and wanted to learn English more with this application. In short, it can be concluded that there are three indicators analyzed in this questionnaire about the application (design, the way to operate, and motivation). Most of the students had a positive point of view about this application. They like the design, know how to operate it, and want to learn English more by using this application.

3.4 Discussion

As the result of the research above, it can be indicated that *Tell Me What is It* application could improve students' ability to master the vocabularies related to the anatomy of human body. The data describe that from 34 students, the average score of students' vocabulary mastery before using the application was 60.59 with a standard deviation 13.32 and the minimum score was 30 and the maximal was 80. Then, after using the application, the students' score was high. The average score was 95.59, standard deviation was 5.04, with the minimum score 90 and the maximal score 100. Then, from 35 students in the control class, the average score before using the conventional method was 60 and it became 77.14 after that intervention, with standard deviations of 15.71 and 8.89. Then, the minimum and maximal scores in the control class before doing the conventional method were 20 and 90; after that intervention, the score becomes 60 for the minimum and 90 for the maximal one. From this result it can be indicated that using the android application "Tell me What is It" is more effective in enlarging students' vocabulary mastery than the conventional method of teaching about anatomy of the human body. It can be seen from the result of this research that found that the mean score of the students after using the application is high, 95.95 with the maximal score is 100. On the other hand, in the control class where the conventional method was applied, the mean of the students score is 77.14 with the maximum score is 90. Moreover, according to data from the questioner, it can be seen that most of the students liked the design of the application (97.15%), After that, (97.1%) could use the application without finding difficulties. Moreover, there were 97.1% of the students said that this application was very helpful for them to learn English and they like to learn English and wanted to learn English more with this application.

Numerous prior studies corroborate the usefulness of mobile learning platforms like Android for imparting lexical knowledge to students, lending credence to the findings of the present investigation. According to Motallebzadeh and Ganjali's (2011) study, mobile learning via mobile phone is an effective and flexible learning tool because it helps students develop their language skills, learn the target language with ease, become more motivated, and test their understanding of the material regardless of where they are or what time of day it is. Similarly, Basal et al. (2016) found that students whose classes used a mobile application to study idioms outperformed those whose classes did not utilise such an app on a posttest. Students preferred the mobile app over a more typical classroom setting where idioms were taught using printed handouts with definitions, examples of use, and fill-in-the-blank exercises.

Another study by Fokides & Mastrokouko (2018) investigates the use of tablets to teach the human body system to primary school students. In this study, the students were divided into three groups. The first group was taught conventionally; students studied using a printed handbook. In the second, a constructivist teaching model was used. The third group of students used tablets and an application, and the teaching was based on a slightly modified version of Bybee's 5Es model. This research found that students in the third group outperformed students in the other two groups. The third group who used tablets felt enjoy, motivated and had a positive attitude towards the use of tablets as well as to the teaching method. It means that mobile learning creates good environment for the students to learn well.

In addition, android-based learning is an additional method proposed by Ramdani et al. (2020) to encourage student engagement in the classroom. The pupils will be encouraged to participate in classroom dissection if taught in this manner., According to Alzahrani (2015), teachers can benefit from

using technology, particularly mobile technology features. These additions may encourage pupils to participate in class and help them acquire a larger vocabulary. This study corroborated the findings of a study by Aini (2016), who discovered that using a multimedia application is an efficient and engaging way to learn new words related to the human body. Researchers found that 96.42% of students who used the app improved their knowledge of the topic.

Also, based on the answer to the question above, there are three signs to look for. They are the way the app looks, how to use it, and how motivated the kids are to learn English after using the app. The person who asked the question said that most of the students liked how the application was made. They said that the application was interesting and didn't make them bored. The colour was nice, and they could hear the sound well. Then, the kids would be able to use the app well without any problems. The kids also said that they wanted to use the app again to help them learn English. It means that they thought this app made them want to learn English. This result agrees with what Sanda and Klimova found in 2021. They found that older people in the Czech market used mobile apps to learn English. In this study, the students liked the apps that had a simple design, didn't have too much material that wasn't necessary, had clear instructions on how to use them, were easy to move around in, and didn't have complicated controls.

4. CONCLUSION

Based on the result of the test, questionnaire and discussion, it can be inferred that mobile learning by using mobile phone through "Tell Me What is It" application is an innovative way to enlarge students' vocabulary about the anatomy of the human body. It can be seen from the result of the test that described that the average score of the student intervention class was higher after using the application than the students in the control class who used the conventional method. In the intervention class, the mean score after using the application was 95.59; in the control classes, the mean score after using the conventional method was 77.14. Moreover, the questionnaire result stated that most of the students liked the application's design. They knew how to operate it and wanted to learn English with the application. In the end, it is clear that this research still has a lot of problems. First of all, the kids couldn't use the app right in class. They asked their parents for permission to run the app in their house. So, keeping a close eye on how the kids were learning was hard. Second, the questionnaire was made up of small signs, making it hard to find out why the students made their choices. Because of these limitations, more researchers are expected to do research in the classroom to see how students learn by using the app. They will do this by finding schools with different roles that let students use smartphones in the classroom as a teaching tool. Then, teachers should find new ways to teach English vocabulary to prepare students for the next level of English skills.

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