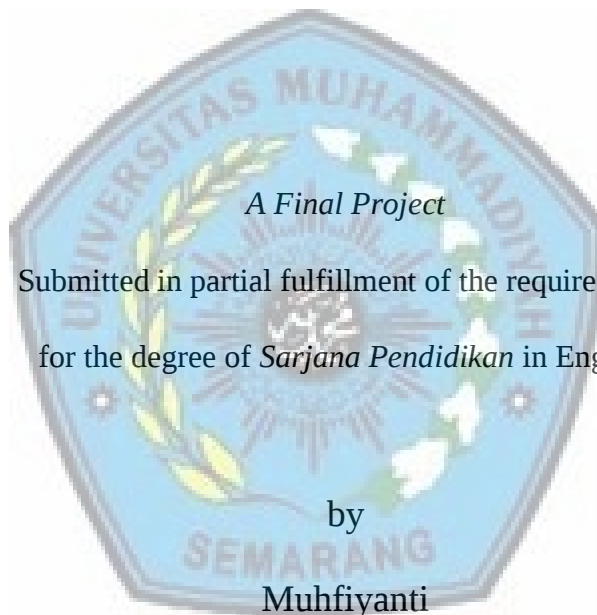




**DEVELOPING ANDROID-BASED MOBILE LEARNING MEDIA IN
TEACHING READING OF REPORT TEXT**



A Final Project

Submitted in partial fulfillment of the requirements
for the degree of *Sarjana Pendidikan* in English

by

Muhfiyanti

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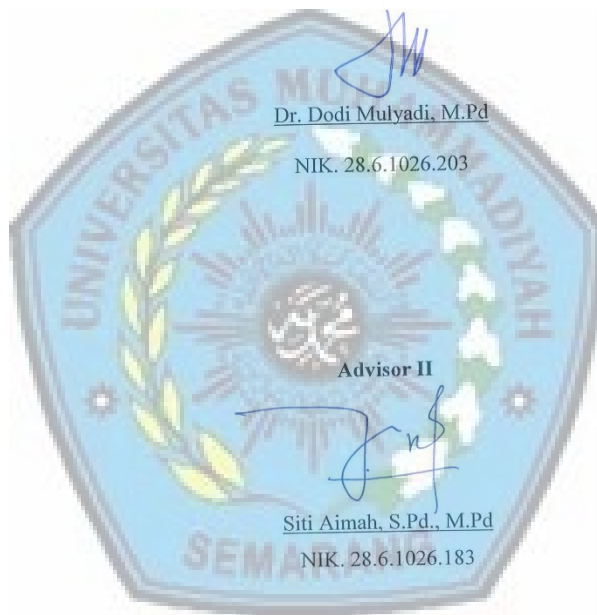
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APPROVAL

A manuscript by Muhfiyanti, 2020 for a final project entitled **“Developing Android-based mobile Learning Media in Teaching Reading of Report Text”** has been approved by the both advisors on September 2020.

Advisor I



DEVELOPING ANDROID-BASED MOBILE LEARNING MEDIA IN TEACHING READING OF REPORT TEXT

Pengembangan Media Pembelajaran Berbasis Android pada Pengajaran Membaca Text Report

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ABSTRACT

Mobile phones can be well integrated English Instruction as the creativity and innovation of teaching media to increase students' interest and motivation. This research was conducted to discuss the developing android-based Mobile Learning Media (MLM) in which its aims to determine the design of mobile phones to utilize as android-based mobile learning media, to produce the product of android-based MLM in online learning process, to analyze the effectiveness of English learning using android-based MLM, to describe the students' perspective of android-based MLM in learning process. This research used the design of Research and Development by Sugiyono consisting of 10 steps, that were potential and problems, data collection, product design, design validation by experts, product trial, revision of product I, usage trial, revision product II, final product. The research instruments were collected using questionnaires, tests, learning media in the form of Application Package Files (APK). The collected data were analyzed using descriptive and Independent simple T-test. The subject of this research were 2 classes of experimental and control class in Senior High School of Muhammadiyah 2 of Purbalingga, with two instruments validators. The result of this research were: 1). The validation of experts media and material was in interpretation of relevant. 2). The product of Android-based MLM is feasible to use. 3). The mean result of pre-test and post-test in Experimental class showed a high significance that meant the product of Android-based MLM as one of the learning media that very effective to use in learning process. 4). The result of students' perception obtained a good category which is 68 % from the small group and 70.4 % showed that the majority of students agreed with the use of Android-based MLM in learning process. The conclusions of this research was the final product based on the criteria of teaching media evaluation, this media could be used on the small group and large group learning.

Keywords: android-based mobile learning media, reading, report text.

INTRODUCTION

The development of technologies in education has increased and given the impact on humans because it can change the human lifestyles. The technological development in learning process is familiar in education especially for accessing the internet to explore students' knowledge and participate in educational resources to make the learning process becomes effectively and efficiently (Mulyadi et al., 2019) One of the benefits of technologies in education is to expand the use of learning media in the teaching process. It is in line with Creep (2012) that the technological media which are used in the process of teaching and learning provide a very significant benefit towards the learning itself. Using learning media-based technology is very important to support the students in the learning process because it can help students to understand the material and reduce students' boredom. The use of media technology in the teaching process is also aimed to transfer knowledge, share the material, and can be used to communicate the objective learning for the students.

Based on the above description, the primary function of learning media is to help students comprehend the material taught by the teacher. Furthermore, when teachers use the appropriate and interesting media in the learning process, they will have a positive impact on students. Students can focus more on the materials because learning media can influence the atmosphere of learning, reduce students' boredom, and keep students' motivation to join in the classroom. It is related by Churchil & Wang (2014), mobile technological devices can increase students' motivation so that it is very appropriate as a tool to strengthen the use of mobile technological in the learning process.

Based on pre-observation conducted at SMA Muhammadiyah 02 Purbalingga, the students had some problems with the process of teaching English. The first problem is related to media by the teacher. In the learning process the teacher only used textbooks, and sometimes used power point so the teacher still used non-technology teaching in English learning process. It did not make students interested in learning English. The second problem deals with

students' lack of motivation in learning English. When the teaching process, some students felt bored it was teacher-centered learning. Besides, some students were lack of English knowledge. Some students cannot read the materials in English well because their lack of vocabulary. It made them not interested in learning English.

Moreover, the teacher tried to use videos integrated with PowerPoint in the learning process, but students still felt bored and unenthusiastic in learning process. Those problems are the reasons why the present research is conducted. The use of technology-based learning media is regarded appropriate to fulfil students' needs right now. It is because students in SMA Muhammadiyah 02 Purbalingga have already use Android for the final exam. Responding to these problems, I develop teaching materials to help students learn English using mobile phones technology.

Yusri & Robert (2017) argue that mobile learning is more familiar and preferred by students with the tendencies of selecting familiar technology. According to the theory, the use of mobile phones is not only for adult learners but also for young learners. It shows that people's interest in using technologies is in high category. It is related to students' condition in which almost all of the students access their smartphones during the teaching & learning process. I believe that using Android-based mobile learning media (Android-based MLM) is beneficial to make students more interested in following the learning process. Thus, the teachers can utilize students' mobile phones as the main learning tools in the classroom activities.

RESEARCH METHODOLOGY

The research design in this study was Research and Development method (R&D). It is a method that can be used to produce a particular product for teaching English and test the effectiveness of the product as a learning media in learning process. Step by step, the development of the media in this study is develop from Sugiyono (2009). This research is presented to develop Android-based mobile learning media in teaching reading of report text for X grade of

Senior High School. I used X MIPA 1 as an experimental class and X MIPA 2 as an control class. There were 25 students of X MIPA 1 and 24 students of X MIPA 2. Furthermore, in class X MIPA 1 was taught about report text by using android-based mobile learning media, while in class X MIPA 2 was taught about report text by using conventional media. This study was conducted at SMA Muhammadiyah 02 Purbalingga at X MIPA 1 & 2, which was located at Jl. Kenduruan No. 39 of Kecamatan Bobotsari, Kabupaten Purbalingga, Jawa Tengah. The research study was conducted in the second semester of the academic year of 2019/2020. The data collection technique in this study was the questionnaire and test. The questionnaires were used to obtained several information from the experts validation and students' responses. I gave pre-test before the material was given to students in experimental and control class and it was used to discover the prior knowledge survey of the students. In addition to that, the post-test was given after the learning process using android-based mobile learning media in experimental class to know what extent to which their mastery level about the report text. While in the control class, it was also given after the treatment used the learning media commonly used by the teacher.

RESEARCH FINDING AND DISCUSSION

1. Developing Andorid-Based Mobile Learning Media in Teaching Reading of Report Text

a. Definition of Potential and Problems

To identify the problems, I analyzed the background of problems through observations at class to look on the real condition in the field. The researcher discussed the material with the English teacher in the school, and prepared a lesson plan that woud be used. The data that needed to research obtained from Mrs. Sulistiana as a teacher of tenth-grade at SMA Muhammadiyah 02 Purbalingga

Data Collection

I used a questionnaire to know the students' responses and the two experts with the product of android-based mobile learning media. Before I used the product in learning process, I gave the product to expert media and material to

obtain the response and suggestion. Then, I revised the product based on the expert media and material.

b. Product Design of Android-based Mobile Learning Media

I made the product of android-based mobile learning media. It was made by Smart App Creators. I prepared background image which related the material to illustrated on Android-based mobile learning media. I made the product of Android-based mobile learning media at least one month.

c. Design Validation by Expert

I used the questionnaire that was developed to know the result of expert validation. There were 8 questions that should be responded by the expert material. The expert material was an English teacher from SMA Muhammadiyah 02 Purbalingga. The result of validation expert was the basis for making progress in the media developed. The progress was completed based on advice and suggestion given by the expert that the product was to be used.

Table 1
Data Expert of Media Validation Result

Validation I					
Expert Media	$\sum ni$	$\sum N$	%	Interpretation	
Aspect of the feasibility of graphic	1	3	33.3%	Quite Relevant	
Language Feasibility Aspect	3	6	50.0%	Relevant	

Based on the result of expert media validation stated that all of the aspect of media was classified as relevant. It meant that the media of the product was already feasible to use in the learning process.

Table 2
Data Expert of Material Validation Result

Validation II				
Expert Material	$\sum ni$	$\sum N$	%	Interpretation

Aspect of Eligibility of content	3	3	100%	Very Relevant
Aspect of quality	1	2	50%	Relevant
Aspects of the quality of exercises	2	3	66.7%	Very Relevant

The result of data above showed the interpretation of the data expert material was very relevant as the media. Thus, the material on the product of android based mobile learning media declared worth and already qualified to use in the learning process.

e. Small-scale Product Trial

In the small group tried-out, I asked 10 respondents to provide an evaluation based on a questionnaire related to quality of the product. The result data of students' responses in the small group have the percentage of 68 % with the category was good.

f. Revision of Product I

The results of data validation from expert validation showed that there were still a number of android-based mobile learning media that need to be fixed. There were some aspects which needed several correctives such as the icon or button, error functions and back sound. The aim of revision of the product was to make the media more effective, efficient and attractive.

g. Usage Trial

In the usage trial (large group trial) in experimental class, there were 25 respondents that provided evaluation to the quality of android based mobile learning media. The data result of students' responses with percentage score of 70.4% that included in good category. Students got a new atmosphere when they learned to use android and they assumed that English lessons was more effective and not boring.

h. Final product

Based on the result of questionnaire on usage trial or field trial the percentage of score obtained 70.4 %, it clarified that android-based mobile

learning media was good category and could be used in learning process. Finally, the product was worthy and feasible to be android-based mobile learning media.

2. The Effectiveness of Android-based MLM in Teaching Reading of Report Text

In this part, the data analysis of different result of students' pre-test and post-test was described by using SPSS via normality T-Test and descriptive statistic. This research used two classes, those were class X MIPA 1 as the experimental class and class X MIPA 2 as the control class.

Table 3
The Data Result of Descriptive Statistic in Experimental Class

Descriptive Statistics						
	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Experimental Class Pre Test	24	36	84	57.67	2.490	12.196
Experimental Class Post Test	24	72	88	79.50	.773	3.788
Valid N (listwise)	24					

The data above was shown that the data score of pre-test and post-test in experimental was valid. It could be showed from the variable of pre-test and post-test value with the number of respondents was 24 respondents. The mean pre-test value of the experimental class was 57.67 and the mean of post-test value was 79.50. The minimum pre-test score in the experimental and control class was 36 and the minimum of post test was 72. Next, maximum pre-test score in experimental was 84 while, the maximum post-test value was 88. The last was standard deviation, the result of standard deviation pre-test and post test value in experimental class showed 12.196 and 3.788.

Table 4
The Data Result of Descriptive Statistic in Control Class

Descriptive Statistics						
	N	Minimum	Maximum	Mean	Std. Error	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Control Class Pre Test	25	20	88	53.44	3.898	19.489
Control Class Post Test	25	48	84	72.00	1.904	9.522
Valid N (listwise)	25					

The data score of pre-test and post-test in control class was valid. It could be show from the variable of pre-test and post-test value with the number of reposndents was 25. The mean pre-test value of the control class was 53.44 and the mean post-test score of the control class was 72. The minimum pre-test score in the control class was 20. Then, the minumun score of post-test was 48. Next, the maximum pre-test score in control class was 88, while the maximum post-test score was 84. The last was standarddd deviation, the result of standarddd deviation pre-test value showed 19.489, while the standarddd deviation of post test was 9.522.

Table 5
The Result of Paired Sample T-test in Experimental Class

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre_Test	57.67	24	12.196	2.490
	Post_Test	79.50	24	3.788	.773

Paired Samples Test

		Paired Differences	T	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	Pre_Test - Post_Test	-16.979	-9.305	23	.000

Table 6
The Result of Paired Sample T-test in Control Class

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre_Test	53.44	25	19.489	3.898
	Post_Test	72.00	25	9.522	1.904

Paired Samples Test					
		Paired Differences	T	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	Pre_Test - Post_Test	-11.209	-5.211	24	.000

The effectiveness of android-based mobile learning media could be seen based on the result of “Paired Sample Test”. I would like to discuss the formulation of the research hypotheses. H_0 meant that there was not different mean between pre-test and post-test result or there was not effect of android-based mobile learning media in teaching process. H_a meant that that there was a different mean between pre-test and post-test result or there was the effect of Android-based mobile learning media on teaching process. To find out the effectiveness of the media, I show the significant value (sig.) of the SPSS output was if significat value (2-tailed) < 0.05 it meant that H_0 was rejected and H_a was

accepted but, when the significant value (2-tailed) > 0.05 it meant that H_0 was accepted and H_a was rejected. Based on the data table above could be conclude that the significant value (2-tailed) in the experimental class was equal $0.000 < 0.05$, it could be calculate that H_0 was rejected and H_a was accepted. Then, in the control class was equal $0.000 < 0.05$, it could be indicated that H_0 was rejected and H_a was accepted. The data result of paired sample T-test can be concluded that there was different mean between the result of pre-test and post-test. It meant that android-based mobile learning media has effects in the learning process.

3. The Students' Perception in utilizing Android-based MLM in teaching reading of Report text

In this study, I also discovered the students' perception of experimental class in the teaching process using android-based mobile learning media. I analyzed the data result that had been obtained by means of a questionnaire.

Data Result of Questionnaire in Experimental Class

No.	Statements	Mean	Category
1.	Learning media using Android-based MLM as learning media can help the students in learning process.	2.84	Good
2.	Learning media using Android-based MLM is more efficient when it is used in learning process.	2.88	Good
3.	Using Android-based MLM in learning process can empower students to be more autonomous.	3.00	Good
4.	Using Android-based MLM in learning process can increase the students' eunthusiastic in learning process.	2.76	Good
5.	Android-based MLM can increase the students' response in understanding the material.	2.68	Good
6.	Feedback be given directly if the learning process uses Android-based MLM.	2.84	Good
7.	The learning process becomes more effective when it uses Android-based MLM than uses conventional media.	2.76	Good
8.	The use of Android-based MLM can stimulate the students' interaction in learning process.	2.76	Good
9.	Android-based MLM is more authentic than conventional learning media.	2.80	Good

10.	Android-based MLM is accessible.	2.84	Good
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In conclusion, the results development of android-based mobile learning media is Application Package File (APK) form which was able to operate on any mobile phones with Android base. Besides that, the students just only install on their android and has relatively small memory capacity of 33.6 MB. The students or the user could install on their mobile phones easily. Based on the research findings, I got the result of paired sample T-test that the significant value (2-tailed) in experimental class was equal to $0.00 < 0.05$, then in the control class was equal $0.00 < 0.05$. It means that H_0 was rejected and H_a was accepted. The result of paired sample T-test explained that android based-mobile learning media influenced on students learning. It was also effective to be used in learning process.

Then, based on the data result of pre-test and post-test I concluded that there was a difference of significance between the students who are taught by using android based mobile learning and the students who are taught using the learning media of video from YouTube and discussed on WhatsApp group. I concluded that the use of Android-based mobile learning media in teaching reading process of report text gave the significant effect. That is related with Sung et al. (2016) explained that “mobile phones technology has a great potential to support the students’ activities in teaching process, because learning media-based technology could increase student interest in learning process and can increase the effectiveness of learning process”. It is in line with Zatulifa et.al., (2018) that learning media using mobile technology can be an alternative in learning process because they are flexible and those media has facilities the students to learn anywhere and anytime, so the frequency of student learning could be increased and could provide high student retention.

CONCLUSION AND SUGGESTION

1. Conclusion

Based on the data results of analysis and discussion, it could be concluded that android-based mobile learning media for tenth-grades senior high school was

valid with the results of media and material validation in the valid category. In addition, the discussion of the final product based on the criteria of teaching media evaluation, this media could be used on the small group and large group learning.

The effectiveness of this media also could be seen from the result of post-test when using android based-mobile learning media is higher than pre-test. Android-based mobile learning media gave a positive effect in learning process which got the significant value (sig.) value was equal to $0.00 < 0.005$. There was different result of pre-test and post-test in the experimental and control class. The mean pre-test of experimental class was 57.66 and the mean of post-test was 79.5.

Based on the data result from the small and large group, I could conclude that students gave positive responses and feedback on this media. Besides the result of the questionnaire, the positive responses also could be seen from the students' interest and enthusiasm in the teaching process. Based on the conclusions, the use of technology could provide innovation in educational field. It was appropriate with Mulyadi et al., (2020) The utilize of technology in accordance with the learning objective, attributes, and abilities significantly contribute to the development of education.

2. Suggestions

Based on the study I have conducted, I got some suggestions such as, this media is a new choice for teachers that can be used to deliver the material for students. Teachers are suggested to utilize the android-based mobile learning media in developing the learning which is interesting so the students will not get bored. Then, for the next product is the Android-based mobile learning media was developed to make the material understandable, it can be improved more by adding vocabulary related to the material so the students can enrich vocabulary after learning. For the next researcher, Android-based MLM should be installed into the other mobiles, such as iPhone, Blackberry, etc. The last was for the students, they can use this media to improve their English ability by reading a lot, learning the material, and doing the exercises.

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