

## Development Of Android Application Based Learning Media In The Study Program Of Library And Information UIN Sulthan Thaha Saifuddin Jambi

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### Abstract

*Learning media is one of the important supporting factors in achieving learning objectives. Learning media should have an attractive appearance, easy to use, and can be used anytime and anywhere so that it can stimulate student interest in learning. The purpose of this research is to develop learning media in the form of an android application in the Library Science Study Program. This research is a research and design research which consists of three stages, namely product analysis, product development, and testing. At the trial stage, the measuring instrument used was a questionnaire. The assessment of the feasibility of the application was carried out on one media expert, one material expert, and trials on 40 students. The assessment of the feasibility of the application and trial using a questionnaire which was then analyzed descriptively quantitatively. The results of the study obtained that the learning media based on the android application was very feasible to use with the results of an assessment score from media experts 83.92%, an assessment score from material experts 84.21%, and the results of trials conducted on 40 students got a score of 81.49%. It is hoped that this application can be used as a learning medium. In addition, it is hoped that further development will be carried out so that this application can be used on various platforms not only on Android.*

**Keywords:** Android Application, Learning, Media

### 1. Introduction

The development of today's technology cannot be separated from the existence of previous technological discoveries, where technology has existed since previous times. Technology develops drastically and continues to evolve until now, starting from the creation of objects to techniques that can help humans do work more effectively and efficiently.

In the world of education, the teaching and learning process involves educators, students, and the learning environment. Where all these aspects influence each other to achieve learning objectives. In addition to these three aspects, learning media is one of the supporting factors to achieve the learning objectives (Hardianto, 2005).

Learning media commonly used in educational

institutions such as text books and powerpoints. However, the use of textbooks tends to be less practical and less attractive to students. Bold printed material may be boring and turn off students' interest in reading it if the binding and paper are bad. In addition, printed books will be easily damaged and torn (Daryanto, 2010). This will certainly have an impact on the learning interest of students. Therefore, in increasing the interest of students in learning, it is necessary to renew the learning media. Where the learning media needed are learning media that have an attractive appearance, are easy to use, and can be used anywhere and anytime.

Current technological advances support the development of learning media. Learning media is now not only limited to books. However, learning media can be accessed on computers/laptops, especially those based on audiovisuals such as videos and films. Learning media can also be accessed via mobile phones or commonly referred to as learning applications and

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educational games (Purnama, Sesunan, & Ertikanto, 2017)

Today the development of mobile phone technology is very rapid. People can easily get it considering the price is quite affordable. The development of mobile phones, especially smart phones or commonly referred to as smartphones, is very supportive in the development of learning media. One of the operating systems owned by smartphones is the Android operating system. The majority of these smartphones use the Android operating system. The results of research by Nugroho & Purwandari (2016) show that learning applications can be run on smartphones and make it easier for users to be able to learn through their respective smartphones. In addition, this application makes it easier to deliver material and carry out exams. Another study conducted by Amin & Mayasari (2015) found that the use of learning media in the form of an android application was more effective than learning without using an android application on a smartphone.

Learning media in the form of an android application has a number of advantages, namely making it easier for students / students to learn not only in the classroom. However, the material can be accessed anywhere and anytime. In addition, with the existence of learning media through this android application, with its dynamic form it can increase student interest and motivation. However, android-based learning media also has a number of weaknesses, such as android applications depending on battery life and internet usage.

Based on the results of observations made at the Library and Information Science Study Program, Faculty of Humanities, UIN Sultan Thaha Syaifuddin Jambi, it was found that the majority of students have smartphones. However, the use of smartphones by these students has not been maximized. Based on the results of interviews with several students in the Library and Information Science Study Program, students use smartphones only for social media and only occasionally to access things related to lecture materials. In addition, the Library and Information Science Study Program at UIN STS Jambi itself does not have an Android-based application that supports learning activities.

Based on the description above, the researcher is interested in conducting a research entitled Development of Android Applications as Learning Media in the Library and Information Science Study Program, Faculty of Adab and Humanities, UIN Sultan Thaha Syaifuddin Jambi.

## **2. Method**

This study uses a research design development model from Borg & Gall (2005) which has been modified. In

this research, the development stage includes three stages including product analysis, initial product development, and the trial stage which is carried out on media experts, material experts, and 40 students. In this study, the validation of media experts was carried out by Information Systems Lecturers, while material experts were Lecturers of the Library and Information Science Study Program at UIN STS Jambi. The data collection technique used a questionnaire which was analyzed quantitatively. The assessment of the questionnaire uses a Likert scale of 1 to 4 where a score of 1 = disagree, 2 = disagree, 3 = agree, and 4 = strongly agree. Furthermore, the total score will be converted so that the percentage of product feasibility assessment is obtained with a value range of 76%-100% = very feasible, 50%-75% = feasible, 26%-50% = sufficient, and <26% = less feasible (Widyoko, 2010). 2011).

## **3. Result and Discussion**

In product analysis, concept analysis, design analysis, and material gathering are carried out. Researchers design learning media that can make it easier for students to access lecture material. The learning material contained in this research is about databases for information institutions.

After the product concept has been formulated, it is followed by a design analysis. In the design analysis, the researcher designed a story board for the application. Researchers designed several menus that will be used in the application. Such as account registration menu, login, class, and quiz menu.

The last stage of product analysis is collecting materials. In this study, researchers designed and compiled lecture materials and questions and answers to be included in the quiz menu.

At the product trial stage, it includes validation from media experts, material experts, and field trials on 40 students of the Library and Information Science Study Program, UIN STS Jambi. Table 1 is the result of the media expert validation test. Where the application gets a total score of 94 (83.92%) which is included in the very decent category

The results of the validation test by material experts where this application gets a total score of 64 (84.21%) which is included in the very feasible category. The results of the application trial to 40 students of the Library and Information Science Study Program. This application gets a total score of 2347 (81.49%) with a very decent category.

Based on the results of research on android-based learning media at the Library and Information Science Study Program, UIN Sultan Thaha Syaifuddin Jambi, it has been successfully developed and received a proper

assessment from media and material experts. In addition, the results of field trials that have been carried out on 40 students have received a positive response to the application. So, it can be concluded that this application is suitable for use by both lecturers and students as a learning medium.

The results of this study are in line with research conducted by Muyaroah & Fajartia, (2017), Yektyastuti & Ikhsan (2016), Oktarina, et.al., (2018) which showed that android-based learning media was feasible and could be used in teaching and learning activities. . By utilizing this android-based learning media, it can also increase students' motivation and academic achievement. The results of research conducted by (Setyadi, 2017) show that an android-based quiz game that has been successfully developed can motivate students to work on questions.

Android-based learning media is a learning media that utilizes technology so that it can overcome the limitations of space and time which allows students to learn wherever they are (Astuti, Dasmo, & Sumarni, 2017). With this learning media, it is possible for students to be able to learn material that is still poorly understood anytime and anywhere.

Therefore, with the advancement of technology and the demands of the current learning needs of students, educators are expected to be able to develop learning media that are of interest to students and adapted to the characteristics and needs of these students. According to Aripin (2018), there are several devices from mobile learning that can always be developed by educators such as drill and practice models, simulation models, tutorial models, and games models.

Android-based learning media in the Library and Information Science Study Program that has been developed in such a way has been designed to be used in all courses in the Library and Information Science Study Program. Thus, lecturers and students in the Library and Information Science Study Program can use this application which can be adapted to the needs and learning outcomes of students.

Although there are a number of advantages of Android-based learning media, in general, Android-based learning media or mobile learning also has a number of shortcomings, including the ability of the processor, smartphone memory capacity, screen display, and different operating systems on smartphones (Sarab, Elgamel, & Aldabbas, 2012)

In this study, there are deficiencies found in the form of applications that can only be used on an Android-based operating system. In addition, this application can be run if the smartphone is connected to the internet. Another drawback found in this application is that there is no

discussion related to the answers to the questions in the application.

#### **4. Conclusion**

Android-based learning media that have been developed by researchers are feasible to use. However, this application also still has a number of shortcomings. It is hoped that further researchers can develop learning media that are used across platforms, not limited to Android.

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