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Android-Based Learning Media Of Kawi Language

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ABSTRACT

The development of science and technology is increasingly driving renewal efforts in the use of technological outcomes in the teaching and learning process. Interactive and interesting learning media can increase, direct, and focus students' attention on material taught by lecturers. Kawi Language is one of the courses at the Sekolah Tinggi Agama Hindu (STAH) Lampung. However, in the learning process, there are still many educators who do not know the benefits of learning media and there are not many educators who can choose effective and enjoyable media in the learning process. Therefore, by utilizing the current technological development, Android, it can be used as an alternative learning media that can be accessed anytime and anywhere.

The research method used is Prototype. The output of this study is a learning media application of Kawi Language which is interactive and can be accessed via an Android smartphone. This application is created using Android Studio. By using this learning media, students can learn effectively through an Android smartphone easily. Based on several stages of the trial, the learning media is categorized as valid with good criteria. This study is expected to be useful for lecturers, students, and advanced researchers.

Keywords: Learning Media, Android, Kawi Language

1. INTRODUCTION

The Android operating system is one of the operating systems that is currently developed in society. The advantage of this operating system is that it is an open source, so that many applications can be used by Android smartphones. In line with current developments of technology and science, new technologies are emerging in which teaching and learning activities do not only use conventional learning media, but also use electronic learning media, especially based on Android.

One of the learning media that can be developed in the learning process is the learning media of Kawi Language. Kawi language is one of the languages that had developed on the Java Island in the Hindu-Buddhist kingdom of the archipelago and was used in writing literary works. Kawi Language still needs to be learned considering it is the source of regional languages in Indonesia and is the ancestral heritage of the Indonesian Nation. Today, Kawi Language is a compulsory course in the curriculum of Sekolah Tinggi Agama

Hindu Lampung. However, in the learning process, it still uses conventional media, so students feel bored and less effective in teaching and learning activities.

Theoretical Framework
Functions and Benefits of Learning Media
The media has a function as a carrier of information from the source (teacher) to the recipient (students) in the interaction activities between students and the environment. The function of the media can be known based on the advantages of the media and obstacles that may arise in the learning process. In general, the benefits that can be obtained are the more interesting and interactive learning process, the amount of teaching time can be reduced, the learning quality of students can be improved, and the teaching and learning process can be carried out anywhere and anytime, as well as students' learning attitudes can be improved. [3].

Android
Satyaputra[4] describes that Android is an operating system for smartphones and tablets. The operating system can be illustrated as a 'bridge' between a device and its users, so that the users can interact with their device and run applications available on the device. In the world of personal computers, the operating systems that are widely used are Windows, Mac, and Linux.

Android component
Kasman (2013) describes that the Android Software Development Kit (SDK) is a tool required to develop Android-based applications using the Java programming language. Nowadays, the Android SDK has become a suppoting tool and Application Programming Interface (API) for developing Android-based applications. Android SDK.

The Advantages of the Android Operating System
The advantages of the Android operating system are as follows:
1) Complete Platform
   The Android operating system is an operating system that provides many useful tools to create an application, in which the application can be further developed by the developers.
2) Open Source Platform
   The Android platform that is an open source makes this operating system easily developed by developers because it is open.
3) Free Platform
   Developers can freely develop, distribute, and trade the Android operating system without having to pay royalties to get a license.

Research Methodology
Software Development Method

The system development method used in making Android-based learning media of Kawi Language application is the Prototype Model. The stages of system development using the Prototype model are as follows:

1. **Communication**
   In the initial stage, communication is carried out to create the learning media of Kawi language application that has the ability as planned.
2. **Planning**
   The planning stage shows how to learn the history of Kawi Language, and I will develop an Android-based learning media of Kawi Language because it is very important in this era, in which the language has been taught conventionally. Planning or making a plan is about what the application wants to make and what the desired needs of the application.
3. **Modeling**
   After conducting a planning, the making of software/application is by doing a model design, such as the initial form model as well as the design of the next form models. This stage includes the design of the use case diagram, activity diagram, sequence diagram, class diagram, and user interface.

Use Case Diagram
The use case diagram illustrates the expected functionality of a system that explains the overall work of the system by presenting the interactions between the actors created and providing an overview of the functions on the system. Figure 3.1 is a use case diagram explaining the role and function of the user who acts as a supporting tool for Android-based learning media, which can be seen in the following figure:
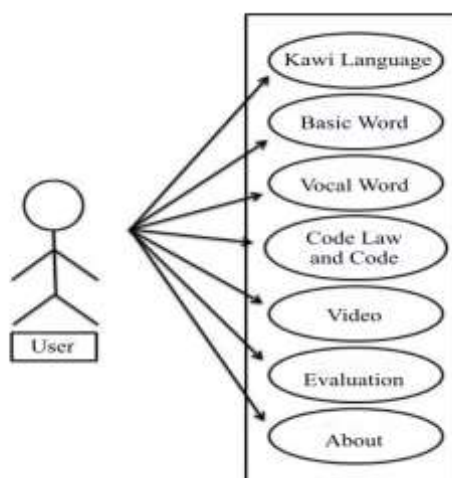

Figure 3.1. Use Case Diagrams

4. *Construction*

   This stage is the making of software, by doing a coding in accordance with the planning model of an application to make.

5. *Deployment*

   This stage is the final stage of the Prototype method, which is developing software to create Android-based learning media of Kawi Language software.

Results and Discussion

The results of this study is in form of the Android-based learning media of Kawi language application. This application runs on handphones that have been supported by the Android operating system. The application can be downloaded via this link https://play.google.com/store/apps/details?id=com.turita.belajar.bahasakawi.

Splash Screen Display

The Splash Screen display only displays when the application is firstly run with a duration of 2000 ms/2 seconds. The Splash Screen display can be seen in Figure 4.1 below:
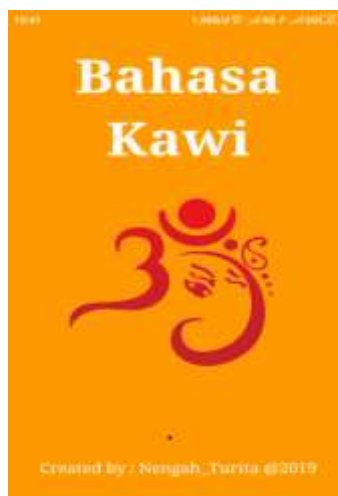

Figure 4.1 Splash Screen Display.

Main Menu Display

This main menu page directly displays the definition of the Kawi language. The following is an image of the main menu display which can be seen in Figure 4.2 below:

Figure 4.2 Main Menu Display

Basic Word Menu Display

This menu page contains the basic words of *swara, wyajnana, penganggen,* and numbers in Kawi Language. The following is a picture of the basic word menu display that can be seen in Figure 4.4 below:

Figure 4.4 Basic Words menu display

CONCLUSIONS AND SUGGESTIONS
Conclusions

The design of Android-based learning media of Kawi Language has been done and can be concluded as follows:

1. The learning media of Kawi Language application can optimize Kawi language learning by using Android-based technology that is run using a smartphone.
2. This application is made interactively which can be used free, and can be accessed anywhere and anytime.
3. This application displays several examples of Kawi Language in the form of *Kekawin* and *Palawakya* videos as an implementation of Kawi Language learning.

4. The learning media of Kawi language shows evaluation of answer choice questions that are useful for measuring mastery of the material that has been learned.

Suggestions
Based on the conclusions, the writers have several suggestions which may be used as reference material for input or comparison as follows:
1. The learning media of Kawi Language application can be developed by adding databases because the use of databases to record evaluation results is very helpful in learning.
2. This Android-based learning media of Kawi language can be developed in the IOS or Windows Mobile operating system

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