English Education Applications For Early Childhood Based Android

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Abstract

Current technological developments continue to be rapid and science continues to advance, requiring guidance as an educational medium. Learning education will be easier to teach to elementary school children. Educational content is very popular with Android users. Learning media always face developments along with rapid technological developments. The MDLC method is a suitable method for designing and improving a media application which is a combination of photo, sound, video, animation and other media. The MDLC method has six stages as follows: Concept, Design, Material Collecting, Assembly, Testing and Distribution. Android-based educational applications are only intended for Android-based cellphones. And to learn educational applications as an Android-based learning media is easier, more practical, and efficient. It is hoped that educational applications as learning media for elementary school children can help in mastering and pursuing each of the subjects contained.

Keywords: application, education, children, android

Introduction

The development of technology at this time continues to be rapid and increasingly advanced science requires mastery of education as a learning medium. Learning education will be easier to teach to elementary school children. In order to capture the power of education today emphasizes visual learning. In this technological development, some of the children who are still in school are more active in using smartphones to use social media and play online games. And the role of parents is less to supervise and guide their children at home. Therefore, the role of parents should be to supervise and guide their children to be more monitored to use smartphones in a direction that is more useful for their children, such as using educational applications as learning media for their children and utilizing technology for scientific purposes and educational facilities.

For a good educational grasp now or before, the emphasis is on visual learning that looks interesting with the bonus of photos and sound. The development of Android-based applications continues to be much faster than other based applications. Among the applications related to education and learning, where learning is easy, practical, and efficient by using mobile features is an Android-based educational application. Moreover, educational applications as educational media for elementary school-aged children by using android applications will make it easier and faster to process everything they want to learn, especially educational applications as learning media. Some of the modules in this educational application are directing the learning modules for elementary-aged children. The material submitted in this educational application is English lessons. This application is made to improve children's memory so they can remember the modules that have been studied in this educational application.

Method
Multimedia Development Life Cycle (MDLC)

The selected stage is multimedia development carried out in 6 stages. The flow of this method is depicted in Figure 1. [9]
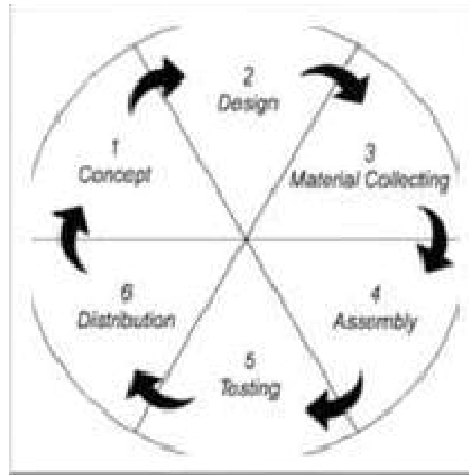
Fig 1. MDLC

Concept

In this session, identification is carried out by determining the goals and needs of making the application:

This application aims to direct children to be able to learn English by using Android-based English education technology so that learning methods can be more interesting for elementary school children.

Programs are selected so that children can learn English in an easy and interesting way. This application was made to be an educational medium using the Android operating system.

This application aims to make it easier for teachers or parents in directing students or their children who are in elementary school (SD) to learn English, especially in object recognition and animal recognition efficiently and more interestingly, namely: There are pictures of recognizing the names of objects and animals. There is an English voice that introduces the names of objects and animals. In addition to sounds and images, there are also sample questions and practice questions so that children can easily learn English and train their memory to memorize the names of objects and animals in English.

design

The design of English education applications for early childhood includes 4 main points: Storyboard, Flowchart, UML, Game Assets.

Collecting Materials

In this session, it is intended to create or collect all materials that will be used to make applications, such as the sounds of the names of objects and animals in English, pictures of objects and animals, and the purposes of making applications taken from various references on the internet.

Assembly

This session is intended to create or collect all materials that will be used to make applications, such as the sound of the names of objects and animals in English, pictures of objects and animals, and the purposes of making applications taken from various references on the internet.

Testing

In the testing session, it is tried after completing the assembly session by running the application and seeing whether there are errors or not. The initial session in this session is also known as an alpha testing session where the test is tested by the builder or the maker itself. After passing the alpha testing, beta testing related to the end use will be tried. is an application implementation session to the user, periodic application maintenance, application revision.

Distribution

The last session was tried for the deployment and delivery of the product to the user or users of the application that was finished and had passed the testing process. The distribution of this apk, especially the introduction of the names of objects and animals, will be distributed by installing applications on Android phones and in the form of CDs / DVDs or other intermediary media.

Results and Discussion
Needs Analysis
To design this application. The process of making apk requires good hardware and software so that it can run smoothly starting from design to implementation and application testing runs well. In Figure 2 illustrates the process of the user using the application.
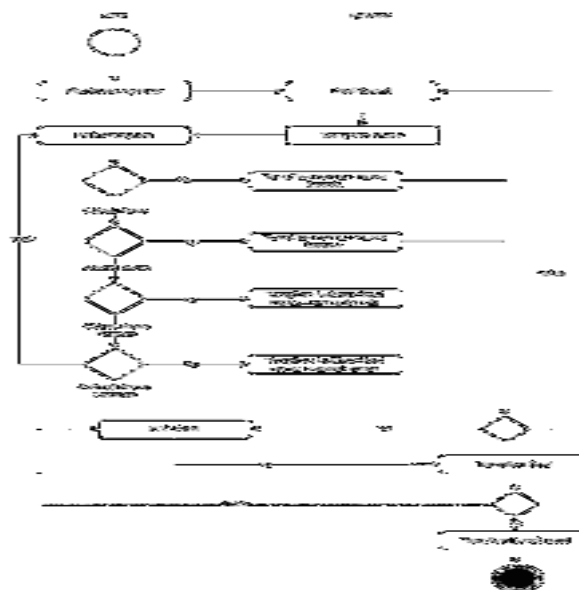

fig 2 Usecase Diagram

Fig 3 Activity Diagram

Gambar 3 terdapat 1 initial node yaitu aktivitas mulai dalam objek, 19 action dalam proses aplikasi, 6 decition node untuk menggambarkan pilihan suatu proses, 1 final node sebagai suatu objek.
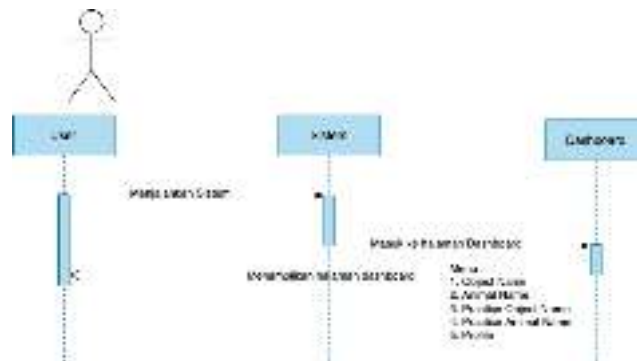
Fig 4. Sequence Diagram

Figure 4 depicts 1 user, 2 Lifelines, namely the system and dashboard, 3 messages, namely running the system, entering the dashboard page and displaying the dashboard page containing the object name, animal name, practice object name, practice animal name, and profile.

User Interface

On the dashboard page there is a backsound song and several menus, namely object name, animal name, practice object name, practice animal name, profile, as shown in Figure 5.

Figure 5. Dashboard page

On the object name page there are 2 menus, namely the sample question menu and the object names menu which contains pictures of objects and descriptions of their names, there is a sound like Figure 6.

Figure 6. Object Name Halaman page

On the animal name page there are 2 menus, namely the sample question menu and the animal names menu which contains pictures of animals and descriptions of animal names, there are sounds like picture 7.

Figure 7. Animal Name Halaman page

On the practice object name page, there are practice questions that contain questions related to the names of objects contained in the object name menu, as shown in Figure 8.
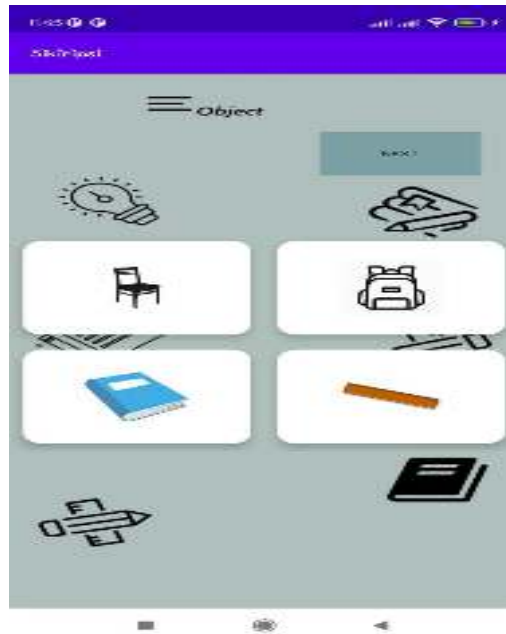

Figure 8. Practice Object Name

On the practice animal name page, there are practice questions that contain questions related to the names of animals on the animal menu, as shown in Figure 9

Figure 9. Practice Animal Name

On the profile page there is information about the maker of the application as shown in Figure 10

Gambar 10. Halaman Profile

Kesimpulan

Dari hasil Analisa, Implementasi serta pengujian. Kesimpulan yang di dapat ialah sebagai berikut : (i) terbuat guna mempermudah anak – anak belajar Bahasa Inggris lewat smartphone. (ii) membantu guru dan terutama orangtua untuk mengajarkan anak – anak dengan efisien dan mudah di mengerti. \

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