

Learning Application Using Android SYSTEM

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Abstract- A change in human lifestyle has also been brought about by the fairly quick growth of computer technology. Among the technologies used is the computer technology seen in mobile communication devices. having an impact on such a way of living. The use of portable media, such as a smartphone, is now referred to as e-learning's newest trend is mobile learning.. In order to create and develop mobile learning that may be used as flexible learning media, this research employs the Development and Research technique. In the meanwhile, this research uses the waterfall design process for software. According to the study's findings, only 5% of university students do not like using the mobile learning application, which is used by 95% of users. The usage of mobile learning applications can, in the end, make the education process more adaptable. In the meanwhile, this research employs the waterfall method for software design.

Keywords - m-learning, flexible-learning, Android, students, teachers. etc.

I. INTRODUCTION

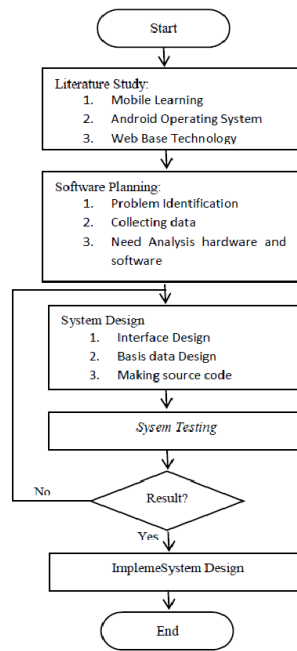
Computer technology has advanced quickly. As a result, the way that people live has changed. One of the innovations that has affected this way of life is the use of computer technology that is integrated into mobile communication devices. In actuality, adopting this technology can help people obtain the most recent information in a range of fields, including education. On the other hand, information and communication technology (ICT)'s rapid growth in science and technology has had an impact on a number of sectors, including those of education and learning., as a result of which, all students can now quickly receive educational information via the internet. The advantages of internet technology include its constant accessibility from any location at any time, as well as its ability to involve a large number of users both individually and collectively. This technology also delivers all of its simplicity. Due Out of these qualities, the internet has proven to be a medium that is very useful for advancing future education.. The quality of education will also increase as a result of the adoption of information and communication technology (ICT) in the educational setting. The Information and communication age People that use technology must be extremely proficient in both language and technology. Two things that are absolutely necessary to human life are language and technology. In their daily lives, people deal with both language and technology. The goal of both technology and language is to advance civilization by facilitating communication. The numerous inventions of electronic equipment, including cellphones, are one example of how technology has advanced. Technology is evolving at a quicker rate.

II. LITERATURE REVIEW

Due of these characteristics, the internet has established itself as a tool that is extremely beneficial for promoting future education., which refers to the use of hardware, software, computers, communications, and digital electronics to process and transfer data. In Indonesia, communication technology development is always changing and evolving. As a growing nation, Indonesia continuously embraces new information technology up until the time when internet usage becomes widespread and is referred to as internet-based technology. Communication technology is significantly influenced by information technology advancement. One of the main factors in the shift in communication methods is email. The user can use any online communication format, including forums, mailing lists, groups, social networking sites, blogs, and file-sharing websites, by simply utilizing one email address. The enhancement of life quality has made it increasingly necessary for people to perform any tasks by making the best use of the resources at hand. The rapid growth of information and communication technology (ICT) has indirectly forced people to use it for many kinds of activity. Mobile technology development is inextricably linked to the usage of mobile learning. Because of this, mobile learning technology also requires help from the architecture of the data transmission system in mobile devices. Smartphones, which are mobile devices enabled by internet services, are practically indispensable to modern individuals in performing their everyday tasks. In the world of today, most people own them, is no longer foreign to smartphones and other mobile gadgets. Mobile technology and applications are increasingly being used in education, particularly the study of foreign languages. In the age of smartphones, where everything is portable, the concept of CALL (Computer Assisted Language Learning) has transformed into MALL (Mobile Assisted Language Learning).. This is consistent with what Gangaiamaran and According to Pasupathi (2017), MALL possesses a number of traits that CALL lacks, such as portability and mobility, social connectedness, context-sensitivity, and individualism.

III. Research Method

The development and research approach was employed in this study's Mobile learning is being designed and developed through research in order to be utilized as a flexible learning tool. The following activities can be carried out when conducting research:



Additionally, the Waterfall method, which suggests a systematic and sequential approach available in SDLC, was applied in software design. This approach places a focus on the importance of order in the software development process.

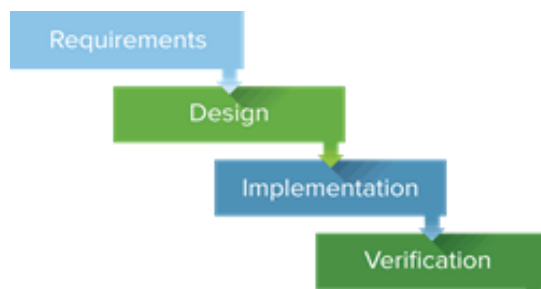


Figure : The Waterfall Model

Users of this application who have specific demands include system administrators, professors, and university students. Three different user kinds will use the developed software. The type's specifics are displayed in Table

User	Rights of Access	Responsibilities
Admin	1.Addition of the teacher users 2.Manage the system display.	Comprehensive system management
Teacher	1. Including the lecture materials 2. Formulating test questions 3. Controlling student grades	Organizing the online education process
Students	1.Downloading the lesson materials is step one. 2.conducting evaluations	Following the lecture procedure and conducting the learning evaluation

Table : The Needs of User

IV. Testing And Implementation

This section deals with the evaluation, testing, and implementation of software applications. This software is evaluated for performance and functionality in a testing environment at a computer system study program.

Testing

1. In the initial stage of the m-learning application testing phase, the user installs the m-learning application on the mobile communication devices.
2. With the level that was assigned, the user logs in.
3. A user initiates a program.

Utilizing Black Box testing, the mobile learning application's functionality is evaluated. During this testing, every component of the m-learning system is examined to make sure it operates as intended.

Test Component	Expected Results	Test Result
SignIn Page	1. If the user and password are accurate, continuing to the next page is permitted. 2. The notification for the error is displayed because the user and password are incorrect.	Suitable
Menu Page	displaying the users' menu that can be visited	Suitable
Teacher Page	displaying the professor, lecture, and GBPP lists	Suitable
Evaluation Page	displaying a number of questions related to the subjects being reviewed.	Suitable
Download Material	The lecture materials are downloadable by the user.	Suitable
Score Page	displaying a range of ratings derived from the assessment results	Suitable

Implementation

use a mobile communication device running Android. The test's settings are as follows to evaluate this application:

1. speedier access to the page
2. Speeding up the system login process
3. Quicker PDF file download speed for the lecture materials
4. Handing out the test or evaluation of the lecture
5. Module layout and supporting materials
6. Legible writing size (text, caption, and typography)
7. Navigation that is simple to use
8. The presentation of the website's interface design layout for the learning materials
9. The displayed features are in accordance with the need of lecture.

V. RESULTS AND DISCUSSION

Results

Android-based mobile learning will be the medium used in learning strategy learning courses. In order to overcome the space and time constraints of learning courses in educational technology courses, This mobile learning application for Android was developed in response to requests from teachers and students. Android-based mobile learning has been shown to be reliable and practical through expert and practical testing on individual assessments, small group evaluations, and field trials. As part of this study, researchers investigated how Android-based mobile learning affected academic achievement in order to complete the quality of eligibility. Researchers treated fourth-semester students taking learning methods courses in order to meet the study's goals. Before administering treatment, researchers have made a many preparations have been made, including a semester learning plan and an Android-based mobile learning application system that students have downloaded from Playstore.

Discussion

Based on a paired sample t-test and a recapitulation of the value of student learning success, it is known that android-based mobile learning promotes growing student learning achievement in courses of learning strategies in Baturaja University Education Technology study programs. Given that research findings are supported by relevant theoretical underpinnings, it is plausible to conclude that the subject of Android-based mobile learning from learning techniques has a significant impact on student achievement... The success of studying with a mobile learning system is significantly impacted by the type of Android Smartphone being used. This is supported by the research of Asebere and Enguah, which claims that teaching students how to use mobile phones and system specialists can boost student talent, if applied, for modifications in training each student, particularly on the basis/speed of autonomous learning. Through independent study, students can fully grasp the fundamentals while also pursuing more complex topics from the CLT 101 course or from more specialized fields.

VI. Conclusion

Following are some inferences that can be made from this study:

1. The program is created in response to the user's needs
2. The test utilizing the Black Box case revealed that the software can identify erroneous or missing functions, interface errors, performance errors, startup mistakes, and termination errors. Functionally, the test's outcome was as anticipated.

3. Because mobile learning may be used at any time, anyplace, and under any circumstances, the learning process can be more flexible.
4. To develop an Android-based mobile learning application that may be utilized to effectively enhance students' listening skills during the learning process.

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