

INTRODUCING THE CHARACTERS OF WAYANG USING ANDROID MOBILE APPLICATION

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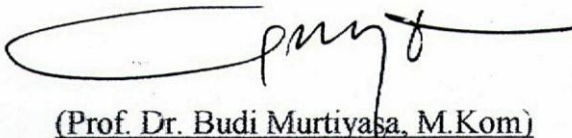
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ABSTRACT

This study takes issue how to plan and build application that have education element, easy to understood and studied that can give information about *wayang* characters by society using Android Mobile. Program development method using System Development Life Cycle is a method that describes the system development life cycle in the design and development of information systems. The result of the design is introducing the characters of *wayang* using android mobile application that have read-only characteristics and contains the notion of *wayang*, *wayang* history, understanding the Mahabharata, equipment *wayang* show, *Wayang* Mahabharata information and exercises that help the user in identifying and introducing *wayang* culture of Indonesia especially the *wayang* to the community and the world. The results of the application trial for user can be concluded that this application for the best resolution use mobile phone with size of 3.2 to 5 inches, requires 28MB of memory and a minimum of Android Operating System Frozen Yogurt (Froyo) 2.2.

Key Word: *android mobile, application, wayang.*

INTRODUCTION

International world admits that *wayang* is pure art and culture product of Indonesia that has supreme percentages. United Nations (UN) pass by UNESCO publish the certificate on November 7th 2003, the content declare that Indonesian *wayang* is

an amazing culture creature (Yasasusastra, 2011). Along with the technology expansion the culture that taking *wayang* has impact to left behind. Previous time, it was familiar as an entertain culture but now it is just a story. A young man right now it will be does not know *wayang* characters.

Aizid (2011) said that lower cause appreciations to *wayang* are technology. *Wayang* is not like just presentation. It is so important to do a preservation *wayang*, because we should proud with a real Indonesia culture that full with substances life. It is really hard, because *wayang* admitted to be the one of Indonesia culture, but now it's strange in country itself.

Increasingly the era, it is more the expansion of the technology. Technology makes life easy. At this moment, technology expansion was happening in our lives, one of them in communication that is Smartphone. Smartphone be main necessary to us that having busy and high mobility in order to them not left the information. Android is the one desired society platform besides blackberry platform and IOS that most popular of Smartphone. Almost all of ages used android platform, from young until old ages. Android is a collection of software which is intended for devices moves include the operating system, middleware,

and key applications (Safaat, 2011). Application for this platform is easy to take and get for free in Play Store. At this time is not found yet android application base mobile that gives information about *wayang* characters in Play Store. These things motivated the researcher tries to combine the culture element and technology in the Smartphone that packages in mobile application inside be found material of *wayang* characters. This application used to help us to know the *wayang* characters and introducing the Indonesia culture, especially *wayang* for society and world.

Based on the problems appear an idea to build "INTRODUCING THE CHARACTERS OF WAYANG USING ANDROID MOBILE APPLICATION".

LITERATURE REVIEW

According Santoso (2011), in a final project entitled "*Pembuatan Mobile Application Peta Wisata Berbasis Platform Android di Kabupaten Sragen*", said that Sragen city is a gateway from East into

Central Java which has many tourist objects. However, tourists do not familiar with those places. To attract the tourists it has to promote from various media. Along with technology expansion that penetrated into various fields, mobile application selected to be a promoted media in Sragen tourism. The purpose of this mobile application is to promote Sragen tourism. The using method is to package all the information of tourism in Sragen into a mobile application in order to be an easy facility to deliver information and can be done anywhere and anytime as long as there is has internet access. This research was successful because it can help users who want to know everything about the tourism in Sragen. A given suggestion is mobile application developments that include more extensive location and addition of features that shows the position of mobile users with targeted tourist sites.

According Septiawan (2012), Tajweed is a science about rules and ways of reading the Quran as well as possible and

should be owned at an early age. In the modern era, Qur'an can be download and put into mobile phone was shaped book in order to practice to read, by the fact is made of based mobile application that aims tajweed in order to the users do not need to bring a book to learn and the search more quickly and easily with the existing grouping. The using method in this research is SDLC (System Development Life Cycle) which is a method that describes by design and construction of the system in the system development life cycle. This research was successful because it is based from questionnaire showed that the application can be useful and helpful in learning Tajweed. A given suggestion is expected the material reproduced to allow users practice with some examples and not only connected by the one example.

Wijatmaka (2012) said that Java Cultural especially in art have a high interest to learn although for foreign tourist or local. However, this Javanese culture began to decrease demand. Factors

changing times or globalization and the influx of foreign culture or acculturation process into this country results the decrease demand in local or regional cultures. Then, in preserving this culture and adds interest to youth or layperson to learn more about local culture, especially in Java is make Java Applications Learning Culture. The results of the research based on the questionnaire states that learning application is easy to operate and quite effective and efficient in use and with the other assessments in the form of content display and learning applications with a pretty good assessment. A given suggestion expected to expand the content.

RESEARCH METHOD

a. SDLC (System Development Life Cycle)

The research method used is SDLC (System Development Life Cycle) is exposing the system development life cycle method in development and design of information

systems. SDLC has many methods that can be used among Spiral, Prototype, Rapid Application Development (RAD), and the other.

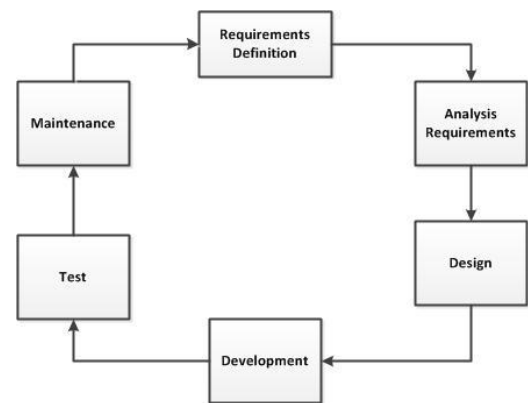


Figure 1 Flowchart SDLC

Stages of the SDLC method are as follows:

1. Requirements definition stages are planning recognition applications process and learning needs also potential users. It also conducted verification problems that occurred prior learning recognition applications and to build for a new assessment of needs.
2. Requirements analysis stage is to find and analyze user needs, both in the form of information or devices used and aligning applications with

- user needs, and then provide the best applications alternative used by the user for facilitate user performance.
3. Stages of design are the user interface designing that includes appearance; form and design of Introducing the Characters of *Wayang* Using Android Mobile Application completely with exercises to make the user can evaluate its capabilities.
 4. Stages of development system (Coding) is a stage of the implementation phase of the technical designing by programmer. After the design is complete, then the instructional media can be built using Eclipse Indigo software.
 5. The test system is a stage trial of instructional media application before the application can be used thoroughly. All of the application functions must be tested in order to

the system free from error and the results appropriate with user needs.

6. Stages of learning take care of media applications software modifications, repair of the error or feedback from the user to the application that has been used. Maintenance of an application is needed, including the development of applications with the addition of new features to get maximum results.

b. Designing

UML designing Use Case only includes designing and based on instructional media needs analysis system, it can be made a use case of the system to be built. Use case itself covers among Use case diagrams, user definitions and use case definition.

1. Use Case Diagram

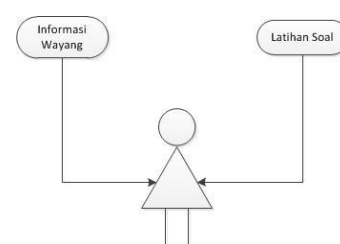


Figure 2 Use Case Diagram

Use case diagram serves to user for illustrate a given facility introducing the Characters of *Wayang* Using Android Mobile Application. From the "Figure 2 Use Case Diagram" explain that user as an operator get the fully facility to open and operate any information about the training provided in the application. Introducing the Characters of *Wayang* Using Android Mobile Application have a static characteristic and is not use the database as a data storage medium so the user can not changing the content of the information although practice questions.

2. Actor Definition

Describes the facility obtained by the user from introducing the Characters of *Wayang* Using Android Mobile Application. User or Operator is the person who has the right of access

to get in to the applications and open each informing and doing the exercises which is available in application.

3. Use Case Definition

The following is a description of the use case that includes *wayang* information and exercises.

a) *Wayang* Information.

This section a user can open or view and learn *wayang* information, which also shows the image and sound examples *wayang*.

b) Exercises.

This section the user can practice working on quiz.

c. Testing

Tests performed after the system was completed. Testing is done in two ways, namely interviews with questionnaires and testing of the system itself. The purpose of the questionnaire is to determine the assessment by user

on Application using Likert Scale.

Formula:

The highest score/ ideal score (SMax): $5 \times n = 5n$ (SS)..... (1)

The lowest score (SMin): $1 \times n = n$ (STS),
n = total respondent..... (2)

Score (S): \sum (total respondent that
choosing answer x answer weigh) (3)

Interpretation Percentage (P):

$$\frac{\text{Score (S)}}{\text{SMax}} \times 100\% \dots\dots\dots(4)$$

Where each answer has weighed;

- SS : Strongly Agree (5)
- S : Agree (4)
- N : Neutral (3)
- TS : Disagree (2)
- STS : Strongly Disagree (1)

Next, the measurement of interpretation percentage (P) is using international scale (Riduwan and Akdon, 2007) as follow:

- 81 - 100 (very strong)
- 61 - 80 (strong)
- 41 - 60 (enough)
- 21 - 40 (weak)
- 0 - 20 (very weak)

RESULT AND DISCUSSION

The results achieved from this research are the Introducing the Characters of *Wayang* Using Android Mobile Application. The results of the study are as the following:

a. Splash Screen Page

Splash will appear firstly when we run the application and automatically switch to the main menu introducing the characters of *wayang* using android mobile application. Splash Screen contains of Title of application and gamelan sound.

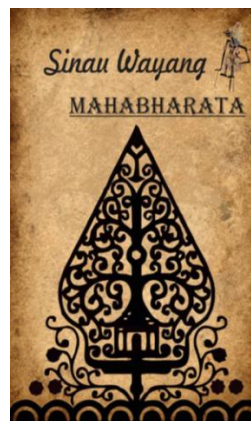


Figure 3 Splash Screen Page

b. Main Menu Page

Appear five buttons that Contains of the *Wayang, Tokoh Wayang, Latihan Soal, Tentang* and

Keluar button. The button of *Wayang* will go to sub-menu of *wayang* page that contains of *wayang* history, *wayang* explanation, mahabharta expalation and *wayang* show video sample. Button of *Tokoh Wayang* contains of 85 popular *wayang* characters that will show information about *wayang* characters, image and sound of *wayang*. Button of *Latihan Soal* contains of random question that will answer by multiple choice. Button of *Tentang* contain of information about programmer and contribution list. Main menu page will show as follows:



Figure 4 Main Menu Page

c. Information Page

Information page contains information about the *wayang*

Mahabharata characters, images and sound of *wayang* samples. Information page as shown as follows:



Figure 5 Information Page

Sounds of *wayang* contained in the direct application originally from sound of *dalang*. The sample of *wayang* image as shown as follows:



Figure 6 Picture of *Wayang*

d. Exercise Page

Exercise page contains of random question that will answer by multiple choice. If it wrong answered it will appear the dialog to go to the information page, if it true answered it will go to the next question.

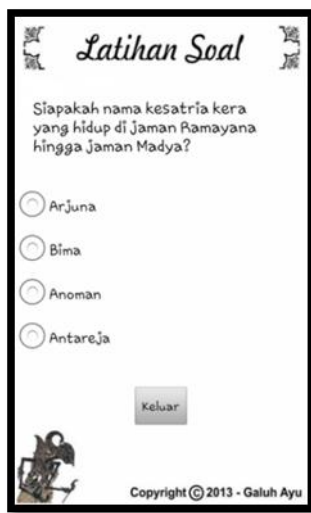


Figure 7 Exercise Page

Testing of the research conducted to 20 respondents with employment background, age, and knowledge of the different wayang by filling out the questionnaire. A questionnaire was addressed to the general public who have some knowledge criteria of the wayang that is really know, know, just know, and do not

know. Based on that result testing, could be collected the data as follow:

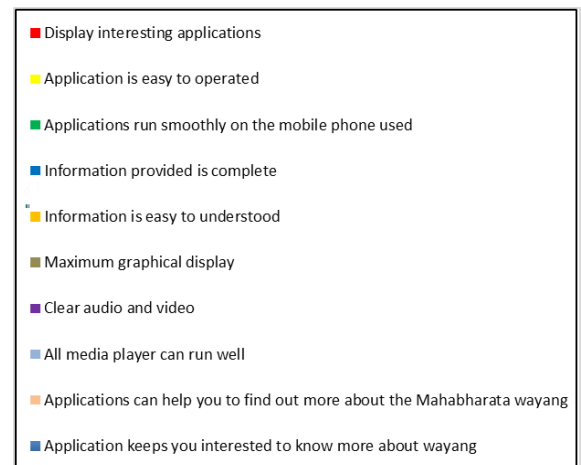
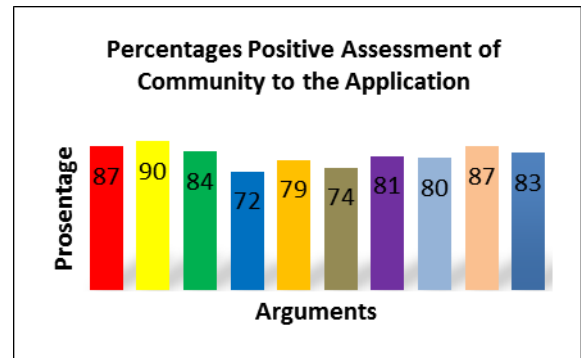


Figure 8 Percentages Positive Assessment of Community to the Application

The score that collected from every respondent from questionnaire would be guidance to evaluate this system; whether the system worked well or not. Besides, it was also determined whether the creating application was suitable to the main purpose of the application creating.

CONCLUSION

The conclusion of the research introducing the characters of *wayang* using android mobile application has been completed and testing to 20 respondents has been done, the results of the test can be concluded that:

1. This application has elements of education, this is evidenced in the results which states 87% of respondents agreed that application helps to know about the *Wayang Mahabharata*.

2. Information in the application is easy to understood, this is corroborated by the results that respondents agreed with this statement by 79%.

Based on that can be concluded that the purpose of this research is to plan and build application that have education element, easy to understood and studied that can give information about *wayang* characters by society using Android Mobile has been successfully achieved.

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