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Mobile App: Pendidikan Islam SPM Sirrah dan Tamadun (Khulafa' Ar-Rasyidin)

"The caliphate is a state political religion which, in the centuries following the demise of the prophet Muhammad (wafat) (peace be upon him) (pbuh) of the islamic community and of the lands and societies under its law."

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Abstract— **Pendidikan Islam is one of the subjects which become compulsory for Muslim students taking Sijil Pelajaran Malaysia (SPM) examination. Pendidikan Islam is divided into sections including al-Quran, Hadith, Akidah, Fiqh, Akhlak and Sirrah. Khulafa 'Ar-Rasyidin is one of the topics in Sirrah that describes the history and events in the Islamic era after the demise of prophet Muhammad (pbuh). Technological advancement and various applications, such as entertainment, will now contribute to a lack of interest in education for students. As an alternative, the research practically developed a 2D animation as an edutainment to improve the quality of learning for students, especially SPM students, as well as to promote a mobile application for education. Islamic history is very important to students in connecting the past with the present era. The design and prototypes development employed in this study are based on waterfall model. This application was evaluated by 30 respondents, consisting of teachers and students, using a pilot test to find out its acceptance as an edutainment material. The overall evaluation of this apps had a positive impact on teachers and students as they enjoyed learning Pendidikan Islam through Mobile Application.**

Keywords— Khulafa' Ar-Rasyidin: Mobile Application; Pendidikan Islam; Edutainment

I. INTRODUCTION

According to Syed Muhammad Qutb (1992), the definition of Islamic education is Ta'dib, which is the most reliable term that come from Allah S.W.T which represents religion (Aqidah), rule (Syariah), worship (Fiqh), decisions or actions (Akhlak), history (Sirrah), science, technology and other knowledge in the world. Naquib Al-Attas pointed out that the purpose of Islamic education is to develop a better human being, good in the sense of having admirable values, such that, materially and spiritually, a human being repents of his responsibilities to the Righteous God, a man who acknowledges and organizes the fulfilment of justice for himself and others in his community, who continues to strive to improve everything as he does.

Khulafa' Ar-Rasyidin (The Rashidun Caliphs) is one of the topics in Sirrah and Tamadun Islam in Pendidikan Islam SPM subjects. The term Khulafa 'Ar-Rasyidin in Sunni Islam is used to identify the first four kingdoms (successors). The meaning of Khulafa Ar-Rasyidin literally means successors who are guided, and the phrase Khulafa Ar-Rasyidin signifies successors as leaders of the people, following the right direction and guidance from Allah SWT and His Messenger (Rasul). According to Asma Afsaruddin (2018), the caliphate is a state political religion, comprising in the centuries after the Prophet Muhammad's demise (wafat) of the Muslim community and the lands and communities under its rule. In the era of rapid technological advancement, society, especially students, has started to ignore about history. In fact, new technologies in this era of modernization have made Islamic history as forgotten, and today, students are less interested in learning this topic. Although the study of history plays an important role in shaping people's minds, values and souls, it remains a deplorable state of society, especially in the study of Islamic history. In general, students believe that Islamic history is a meaningless study, not a valuable subject and a loss of effort. Dyah Kulamasari once explained that one of lack of interest in history is that most teachers are too tied up to textbooks. Even the notes given are copied from the textbook by one hundred percent. The learning media used remain the same, that is, the way teachers read textbooks in front of the classroom. Although the use of textbooks has some advantages, such as having a summary, the link on textbooks means that the information and learning experience to be applied to students is limited and rigid.

As a result, educators need to emphasize the topic of Islamic History to students by giving their opinions and engaging with them personally. According to Prof Emeritus Tan Sri Dr. Khoo Kay Kim, educators should grant the students the chance to ask the questions based on observations and opinions, in providing significance of history in schools, consider making it more patriotic in the new generation and learning about their culture and history.

The rapid advance in high-tech in recent generations does not help in encouraging students to search for the unlimited resources available to them. As a result, they prefer to find fewer historical information, read content or websites. It is unfortunate that excessive Internet access exposed students to entertainment, social media and online gaming. These students are more concentrated to the short form exams, test questions, and prediction questions for major examinations such as SPM. Thus

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educators, especially teachers in schools need to use the latest technology so that students can reach information and knowledge at any time and will be interested in this subject.

From these analysis, researcher come up with the following objectives for the study:

• To analyze the current learning method of Pendidikan Islam subject from SPM students.

• To develop a Mobile Application (app) of learning Islamic history for SPM students.

• To evaluate the effectiveness of education for The Caliphs' Mobile app.

A. Problem Statement

The problem for students, especially SPM students, is they detest learning Islamic history because they consider history is old stories. Based on Deliman's statement, the reason behind the low interest in learning about historical learning is that "the material presented is nothing more than a tale about the reconstruction of past human events and activities, which for the students, is abstract." The way the education teacher's explanation is also a factor in students' lack of interest because some teachers do not give students ideas on how to relate history with current issues.

The lack of reference resources and teaching aids in Islamic history also makes education tough for students and teachers in learning this topic.

B. Research Question

• Why Pendidikan Islam is important for SPM students?
• What is the method used to teach Pendidikan Islam to SPM students?
• What improvement can be made to Pendidikan Islam education for SPM students?

C. Significance of study

The learning of Pendidikan Islam can be improved by using the mobile app or Edutainment and this can increase interest among students. The use of mobile app will also assist SPM teachers to educate SPM students with teaching aids.

It can be construed that this application will benefit teachers and students having troubles with teaching and learning Pendidikan Islam. It will also increase the interest for SPM students to learn Pendidikan Islam, especially Islamic history. Besides, the topics in Pendidikan Islam are important to students because the topics required value and relevance to bring the historical theory of knowledge or literacy to a higher level of understanding.

II. METHODOLOGY

A. Introduction

The research methodology employed in this research is waterfall model. Waterfall model is a software development process. The waterfall model was originally introduced by Dr. Winston W. Royce and published in 1970, a linear, sequential approach to the System Development Life Cycle (SDLC) which is common in project management and product development. This method allows instructional designers, content researchers or teachers to apply this research model in order to create an effective and successful teaching model. The systematics in the model is a relatively straightforward process in the context of a new software project, a model that is mainly attributed to the step-by-step nature of the method itself.
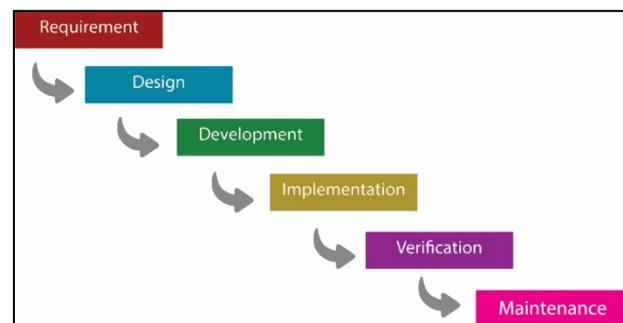

Fig. 1: Waterfall Model

B. Research Methodology Structure

There are six steps in waterfall model, which are Requirement, Design, Development, Implementation, Verification (Testing) and Maintenance. Each process is related and integrates with each other. This model describes the process in a simple and understandable approach that will benefit by saving the development time of the app, reducing the risks of error between the process making the process more effective in the development of the project. Below are the explanations of how this model will be used in the research.

I. Requirements

During the requirement phase of the waterfall model, the actual specifications of the application are methodically analyzed and written in a specification document which provides the basis for any development. In the phase, the research project is explored and considered in terms of choice and content. The in-depth analysis includes the objectives, the problem statement, the limitations, the target audience and the approach to achieve from development.

This phase is important to ensure all required functions are included in the mobile app for Pengajian Islam. Furthermore, it must be more interactive for the students and teachers and the approach to the contents must be easily understood by the users.

II. Design

Designing phase is where the application storyboard is created to visualize the flow of the application before finalizing it and move to the development phase. In this phase, the researcher decides the design for the mobile app to be more

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appealing to the users. The researcher organizes the content and determine the instructional strategy on how to present the information on the topics to the users. In this phase, the key point is linked back to the analysis made as well as references of app designed for education. Another important issue to look at is the usage of the multimedia elements such as text, graphics, video and animation. The researcher determines the mobile app flow by creating a flowchart and draw the storyboard.

III. Development

Fig. 2: Development Phase

During the development phase, the researcher begins with the production and testing of the technique used in the project. The mobile app will be developed in accordance to the results and findings in the requirement and design phase, making sure the app is developed to meet the criteria determined during the previous stages. In this phase, the researcher uses the information from the two earlier phases to create the app.

By using appropriate software, the application can now be developed. Below is the list of software used to develop the application:

TABLE 1: Software used for the development

Software	Description
Adobe Illustrator	- This software is for the design phase. - This software is used to create the interface and graphics that are used in the mobile education such as notes for learning.
Unity	- This software uses C++ Programming Language to create the interactive part of the mobile app. - It is also used to create animations for a few designs.

IV. Implementation

The implementation phase involves in making the concepts and interfaces into a working application. In this phase, a variety of actions are taken, such as comprehensive testing, debugging and updating the mobile app.
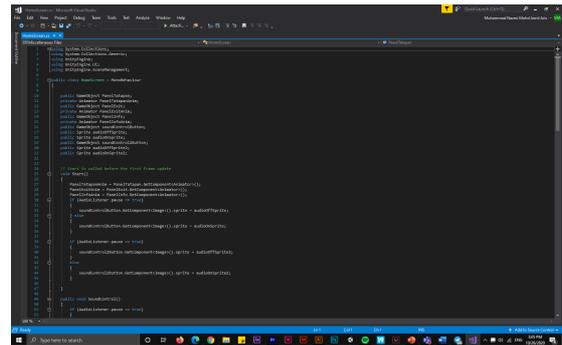

Fig. 3: Implementation phase

V. Verification

The verification phase reflects continuous system changes to ensure efficient performance and positive results. In order to recognize any needs or mistakes, the plan is to be translated into action when testing a prototype product to the targeted audience. The purpose is to ensure that the user learns the product and achieves results, achievements and objectives. In this phase, the researcher uses two testing levels, namely Alpha Testing and Beta Testing.

For Alpha Testing, testing will be conducted by the researcher. For Beta Testing, a group of target users are selected to test the prototype.

VI. Maintenance

This is the last phase of the model in which all feedback from the previous phases is collected and to be taken into consideration, reported and monitored. The effectiveness of the mobile application needs to be evaluated only to ensure that it achieves the research objectives. Any maintenance or improvement projects will be evaluated, and the data will be used to determine the strength and opportunities to further improve the Mobile app before the process moves back to the requirements stage.

III. TESTING AND RESULTS

a. Introduction

In order to help researcher to identify the effectiveness, functional capabilities and quality of the system, the testing process is required. This process is conducted in order to ensure that any method and multimedia elements used in the product can adapt with the requirements to be used by users.

b. Testing Method

Alpha Testing is performed in order to identify bugs before the distribution of the software product to real users or the public. It is also called the acceptance test. This test is conducted by the researcher. The test requires a significant review of the settings and results, as well as the detection of errors within the developed app, and the debugging process can be used to find some possible error in order to fix it. The app will be tested to see if the entire product design is completely usable and whether more innovations in the form of feedback and suggestions can be made to improve the experience.

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Beta Testing is the test for a device product prior to advertising or official release. It is the last test which normally involves the distribution of the product to external beta testing platforms and individual users ('beta testers') for real-world exposure. A group of target users tryout the prototype in order to get feedback on the interactive content, the layout of the user interface and the project requirements. The feedback obtained through questionnaire given to the target users. The research objective needs to be achieved, therefore, any feedback from the target users are the major concern to enhance the Educational mobile application as well as to debug any errors found.

b. Testing Results

In Beta testing, the researcher evaluated the effectiveness of the mobile app by collecting data and input from the target users based on the quantitative method. As many as 30 responses have been obtained. The questionnaire is divided into sections, namely Section A for Demographic Analysis and Caretakers, and Section B for Application Performance Rating. The data was analyzed and was reflected to the research objectives to determine the success of the mobile app.

i. Assist in learning

The following pie chart shows the results whether the mobile app successfully assisted beta testers in learning Pengajian Islam. 93% of the respondents agreed that the apps helped them in learning Pengajian Islam.
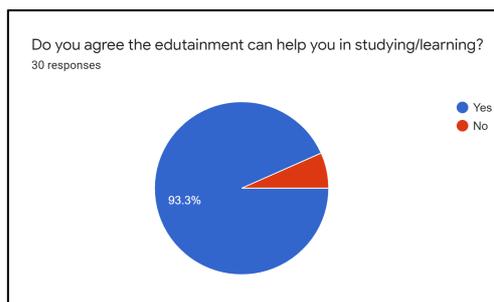

Fig.s 4: Pie chart shows the result whether the mobile app helped users in studying

This high percentage shows that the mobile app gets positive vibes from the responses. This method of learning is known as edutainment (education + entertainment) and it is a new learning tool that can improve the quality of teaching and learning in education.
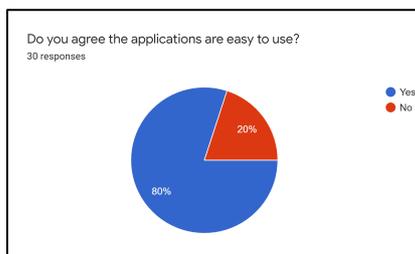
ii. Ease of use

Fig. 5: Pie chart shows the result for ease of use the app

The pie chart in Figure 5 shows the result on the question whether the testers found that the mobile app can be easily used.

80% of the respondents agreed that the app is easy to be used. This means that the app has achieved the function of user-friendliness with good interface design and usage of multimedia elements.

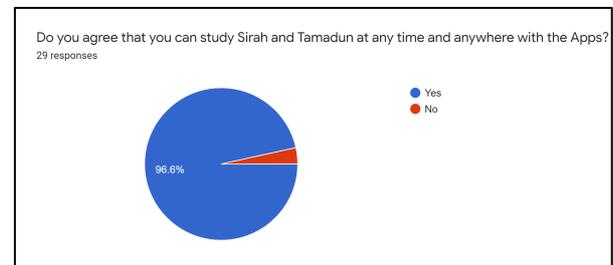*iii. Where and when can the apps be used?*

Fig. 6: Pie chart shows the result for where and when the apps can be used

There is a majority of 96% of the respondents agreed that they can use the app outside and inside their schools, and they can use it anytime. This is important as it will be help them learn Pengajian Islam where and when they are prepared to study. Thus, this will help the SPM students adapt to new environment and making learning very easy at the tips of their finger.

IV. DISCUSSION

A. Recommendation and Suggestion

"Mobile app: Pendidikan Islam SPM Sirah and Tamadun Islam (Khulafa' Ar-Rasyidin)" has been shown to be appropriate to be used by SPM students. The outcome of the survey reveals that majority of the respondents are happy with the application. However, there is a need to improvise the application in order to make to produce more appealing and motivating mobile app in the future. It would attract more users to study Islamic History using a mobile app. The researcher can add more features and functions to improve the mobile app.

Results obtained show that the researcher must be aware of the compatibility of the Apps in order to make them easier for users to use in the future. With the exception of the user's recommendation, the researcher must increase   the content of the topics to allow more information in Islamic history. 3D animation can also be added to make it more appealing to students.

Finally, the mobile app can only be accessed by android users and, thus, in order to increase the audience for the mobile application to be installed, researcher can introduce IOS users to use the apps in the future.

B. Conclusion

The Mobile app: Pendidikan Islam SPM Sirrah dan Tamadun (Khulafa' Ar-Rasyidin) has been developed successfully as an educational mobile app and achieved its objectives. The apps combined with the multimedia elements make it more attractive and interesting for the users to use it. From the results, it is shown that the majority of users who experience the testing process satisfied and delighted as they come to learn this application and acknowledge that it has unique and useful features while using it. It is also an easy-to-use application and this make users believe that a mobile

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educational application will go much further if the researcher continues to improve and update the content of the topics and become a perfect application for education.

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