INTERACTIVE IQRA' LEARNING APPLICATION

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INTERACTIVE IQRA' LEARNING APPLICATION

NUR NAZIFA BINTI MUHAMAD NIZAL

This report is submitted in partial fulfillment of the requirements for the Bachelor of Computer Science (Interactive Media) with Honours.

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FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2021

DECLARATION

I hereby declare that this project report entitled

INTERACTIVE IQRA' LEARNING APPLICATION

is written by me and is my own effort and that no part has been plagiarized

without citations.

STUDENT : _____ Date : 2 September 2021

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I hereby declare that I have read this project report and found

this project report is sufficient in term of the scope and quality for the award of

Bachelor of [Computer Science(Interactive Media)] with Honours.

SUPERVISOR : _____ Date : 2 September 2021

TS AHMAD SHAARIZAN BIN SHAARANI

DEDICATION

This report is dedicated to my loving parents, who have always been a source of inspiration. My parents had always provided emotional and financial support when I was on the verge of giving up.

I also dedicate this report to my supervisor, Ts. Ahmad Shaarizan Bin Shaarani provided me with excellent feedback and suggestions to ensure that this report was completed on time.

Finally, I dedicate this report to all of my dear friends who have always supported and guided me during my studies.

UTeM
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ACKNOWLEDGEMENTS

Bismillahirrahmanirrahim,

First and foremost, praise and thanks to Allah S.W.T for granting me good health, strength, and peace of mind to successfully finish this project.

I want to express my deep and sincere gratitude to my supervisor, Ts. Ahmad Shaarizan Bin Shaarani for providing me invaluable guidance and positive comments throughout this project.

I am incredibly grateful to my parents for always giving me the strength, prayers, and support to complete this project emotionally and financially.

Finally, my special thanks to all of my beloved friends who have always encouraged and motivated me.

Thank you.

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ABSTRACT

"Interactive *Iqra'* Learning Application" is an eBook that gives the students a better understanding and fast learning about reciting *Al-Quran* through multimedia elements such as text, audio, video, graphics, and animation. Moreover, teachers can use this eBook in the teaching process in an interactive way, and students can practice independently before entering the class to speed up the learning process. The problem is that finding a teacher who can teach how to learn and recite *Al-Quran* according to student free time is very hard. In addition, most of *Iqra'*s available at bookstores have a plain design and are not interactive that have caused the kids to not attract to learning. On the other hand, this eBook includes animation, sound for students to hear the pronunciation, and a quiz to test students understanding at the end of each chapter that a traditional book does not have and become the flaws of a traditional book. The characteristics of this eBook can help attract students' attention in learning. The project's methodology used to develop this eBook is the ADDIE model that is often utilized in learning models. ADDIE stands for analysis, design, develop, implementation and evaluation. ADDIE model is chosen because the ADDIE model offers a proven method for creating understandable, effective, flexible, easy to modify and can be used with other models. The result of this finding is the "Interactive *Iqra'* Learning Application" is effective for students to practice to recite *Al-Quran* and teacher in the teaching process in an interactive way to attract students' attention. In a nutshell, this eBook is a helpful method for students because students can learn how to recite *Al-Quran* easily and effectively as the interactivity, interface design, and multimedia element are compatible with the target user needs.

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ABSTRAK

"Aplikasi Pembelajaran Iqra Interaktif" adalah eBook yang memberi pemahaman yang lebih baik kepada para pelajar dan pembelajaran pantas tentang membaca *Al-Quran* melalui elemen multimedia seperti teks, audio, video, grafik, dan animasi. Lebih-lebih lagi, guru dapat menggunakan eBook ini dalam proses pengajaran secara interaktif, dan pelajar dapat berlatih secara bebas sebelum memasuki kelas untuk mempercepat proses pembelajaran. Masalahnya ialah mencari guru yang boleh mengajar cara belajar dan membaca *Al-Quran* mengikut masa lapang pelajar sangat sukar. Selain itu, kebanyakan Iqra yang terdapat di kedai buku mempunyai reka bentuk yang jelas dan tidak interaktif yang menyebabkan anak-anak tidak tertarik untuk belajar. Sebaliknya, eBook ini merangkumi animasi, suara untuk pelajar mendengar pengucapan, dan kuis untuk menguji pemahaman pelajar pada akhir setiap jilid yang tidak dimiliki buku tradisional dan menjadi kekurangan pada buku tradisional. Ciri-ciri eBook ini dapat membantu menarik perhatian pelajar dalam pembelajaran. Metodologi projek yang digunakan untuk mengembangkan eBook ini adalah model ADDIE yang sering digunakan dalam model pembelajaran. ADDIE bermaksud analisis, reka bentuk, pengembangan, pelaksanaan dan penilaian. Model ADDIE dipilih kerana model ADDIE menawarkan kaedah yang terbukti untuk mewujudkan yang difahami, berkesan, fleksibel, mudah diubahsuai dan dapat digunakan dengan model lain. Hasil dapatan ini ialah "Aplikasi Pembelajaran Iqra Interaktif" berkesan untuk pelajar mempraktikkan membaca *Al-Quran* dan guru dalam proses pengajaran secara interaktif untuk menarik perhatian pelajar. Ringkasnya, eBook ini adalah kaedah yang bermanfaat bagi pelajar kerana pelajar dapat belajar membaca *Al-Quran* dengan mudah dan berkesan kerana interaktiviti, reka bentuk antara muka, dan elemen multimedia sesuai dengan keperluan pengguna sasaran.

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LIST OF ABBREVIATIONS

ADDIE	**-**	**Analyze, Design, Develop, Implement, and Evaluate**
EPUB	**-**	**Electronic publication**
ICT	**-**	**Information Communication Technology**

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CHAPTER 1: INTRODUCTION

1.1 Introduction

Nowadays, learning by eBook for learning should be introduced to everyone to ensure that students do not miss out on technological innovations. This is because technology in education has rapidly grown day by day. Students have to catch up with current technology not to be left behind and compete internationally to be excellent.

To catch up with the new technology, an eBook containing multimedia elements is used to teach and learn the process. This eBook is easier and more attractive to understand because the eBook includes visuals and audio. Having visuals and audio is the best way to explain something complicated to explain such as pronunciation. This eBook also contains various elements that students and teachers can interact with, such as buttons, audio and video.

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Iqra' is a textbook for learning Arabic letters and pronunciations used in Indonesia and Malaysia. *Iqra'* help the readers to read *Al-Quran* fluently by emphasizes direct reading exercises. *Iqra'* consists of six chapters with difficulty levels ranging from easy to difficult in a simplified and concise way. *Iqra'* is implemented for anyone who wants to learn how to recite *Al-Quran* based on reading fluency.

This eBook aims to help students learn and guide how to recite *Al-Quran* easily, fast, and systematically. Students can answer the quizzes to assess their understanding at the end of each chapter. Secondly, to guide the teacher in the teaching process in an interactive way. According to Siti Aminah Sallehin & Fazlinda binti Ab Halim (2018), the use of multimedia -based teaching aids in teaching and learning has been proven in improving the effectiveness of teaching and learning. Last but not least, this eBook is able to capture the interest of kids during the learning process, making the learning experience more enjoyable.

1.2 Problem Statement

Nowadays, finding a teacher who can teach how to learn and recite *Al-Quran* according to student free time is very hard. The student has to follow the teacher timetable that suits the most. However, finding a teacher who can track students' time and location is nearly impossible because students' time table already occupied with activities from school or sports.

Moreover, most of *Iqra'*s available at bookstores have a straightforward design containing unattractive text for kids. On the other hand, kids tend to attract to cheerful design and character animation. Therefore, students choose to sleep and play with their friends because they are not interested in learning as the book is plain. This eBook provides an interactive multimedia element that teachers can use to interact with the students.

Apart from that, students who want to re-learn have found difficulties learning because there are limited sources of *Iqra'* containing audio and video. The example scenario is that if the student could not catch up in class, they have to learn at home. However, most students struggle to comprehend because they do not have an *Iqra'* containing multimedia elements such as audio, video, graphics, text, and animation to guide them.

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1.3 Objective

This project embarks on the following objectives:

i. To investigate the interactive multimedia element for *Iqra'* development.
ii. To integrate the interactive multimedia element in *Iqra'* development.
iii. To evaluate the perception of teachers and students towards the *Iqra'* application in teaching and learning.

1.4 Scope Of The Project

This eBook is incredibly informative and beneficial to pre-schooler students (3-6 years old), primary school students (7-12 years old), secondary school students (13-17 years old) and adults (18 and above) by practising using this *Iqra'* eBook.

Besides, the students can choose to learn in their free time and everywhere according to their respective comfort. Moreover, students can test their understanding by answering the question at the end of each chapter. Furthermore, this *Iqra'* eBook guide the students via audio to help in the pronunciation. Next, an interactive and cheerful design are able to attract kids' attention in the learning process.

This eBook consists of six chapters with difficulty levels ranging in ability from easy to complex. The learning content in this eBook is simplified so that students do not feel too overwhelmed and easily bored while learning. The concept of this project is simplicity. Thus, the whole idea of this eBook is not to use too much colour and pack with information. However, this eBook's animation uses 2D animation instead of 3D animation because creating 2D drawings is rather simple than 3D. This eBook also does not teach about *tajwid* because this eBook is focused on beginners who are just starting in learning *Iqra'*.

1.5 Project Significant

This "Interactive *Iqra'* learning application" is a helpful method to the student or anyone who wants to learn how to recite *Al-Quran* from chapter 1 to chapter 6. Moreover, this eBook helps the teacher in the teaching process in an interactive way to attract students' attention. This eBook also includes quizzes that contain several questions for the student to assess their understanding at the end of each chapter.

1.6 Conclusion

This chapter discusses the overview of the "Interactive *Iqra'* Learning Application" that can attract anyone who wants to learn to recite *Al-Quran* and the teaching process in an interactive way. There is also an explanation of what the project is about and the main purpose of the project. The problem statement is discussed, which is difficulties in finding a teacher, an unattractive book that is hard to attract students' attention, and limited sources of *Iqra'* containing visual and audio to re-learning.

Three objectives need to be achieved, which is to investigate the interactive multimedia element for *Iqra'*s development, integrate the interactive multimedia

element in *Iqra'* development, and evaluate the perception of teachers and students towards the *Iqra'* application in teaching and learning. The scope explained the learning content and features in this eBook is text, audio, video, graphic, animation, and quiz. The scope also explained what is not covered in this eBook, such as 3D animation and the learning of *tajwid*

The next chapter will be discussing the literature review and project methodology. The previous project or product that has been addressed concerning this topic is discussed in the next chapter. Lastly, the approach that is used in production will also be addressed

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CHAPTER 2: LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

First and foremost, the primary goal of this chapter is to review the literature on any prior project or product that has been addressed in conjunction with this eBook. The previous project or product is observed and compared, and then a problem is identified that could contribute to this project. Comparison is made based on target user, platform, price, multimedia component, language, strength and weakness.

This chapter clarifies the methodology used in the process of this project. Moreover, instructional design is explained in this chapter. The instructional design includes educational goals, a flowchart of this system, the detailed course content of each chapter, test questions and metaphor. In addition, this chapter also discusses the software and hardware requirements for developing this eBook.

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2.2 Domain

eBook plays a vital role in conveying knowledge to the audience in the learning and teaching process. The eBook is crucial in the learning and teaching process because the eBook is able to make the learning session better engaged to attract students' attention in the class. The features of this eBook that implement interactive multimedia elements such as text, audio, video, graphic and animation can help make the teaching and learning session more fun. Abdul Aziz, N. A., & Jaafar, N. (2018) states that the teaching process assisted by multimedia can make learning more fun. Moreover, quizzes are also included in the eBook that is made up of multimedia

elements. Thus, students can test their knowledge of that chapter through assessment and quizzes before proceeding to the next chapter.

2.3 Existing System

Comparison between multiple systems is crucial to develop effective learning material and a good eBook. By performing comparisons, the development of this eBook is improved as the strength and weakness of each existing system is recognized and become better than the existing system.

2.3.1 Learning Method in The Traditional System

Traditionally, students learn to read *Iqra'* using a physical book. The usage of paper and printing has contributed to the increase in the price of the book. The eBook is cost-effective because eBook can update the content without reprints and eliminate unnecessary costs such as labour, paper, and others. In general, all physical books only contain static graphics and text that are unattractive, especially for kids. To attract students' attention in class, teachers have to develop their creativity to make the class enjoyable. However, attracting students attention without any help from technology is tiring and time-consuming. Furthermore, when students want to re-learning and practice independently, they do not have the reference to pronounce correctly because there is no audio provided. A new strategy must be updated to address teachers and students' issues to make learning sessions more productive.

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2.3.2 Traditional *Iqra'* Book

Figure 2.1 below shows the traditional *Iqra'* book named *Iqra'* 6 In 1. Like other traditional systems using physical books, the disadvantage of physical books is not cost-effective because paper and print costs should be considered in the production process. This book only containing text and not made up many colour combinations has caused the book to look dull and uninterested for students, especially kids. The content of this book consists of six chapters with difficulty levels ranging from easy to complex. The design of this book is very basic because there is no exciting graphics, and the font used is also basic. Students can only read and take notes using this book.

However, physical books are not effective for learning because students do not have guidance without teachers or parents.

Figure 2.1 *Iqra'* 6 In 1

2.3.3 eBook - *Buku Iqra' jawi*

Some eBooks in the market sold online or in bookstores have already been created by other developers. *Buku Iqra' jawi* is an example of a similar eBook. This eBook aims for all ages who want to learn to recite *Al-Quran*. The content of this eBook contains only the introduction of the *Jawi* alphabet from *alif* to *ya*. The design of this eBook is also basic, where this eBook only contains static graphics and text. This eBook does not contain any interactive elements. Therefore, the engagement in this eBook is low because there is no audio and video. The learning content of this eBook is also not much because this eBook only focuses on the *Jawi* alphabet instead of *tajwid*, *makhraj*, *hijaiyyah* letters and others. Figure 2.2 below shows an eBook named *Buku Iqra' jawi.*

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