

iBOOKS : KURIKULUM PENDIDIKAN PEMANDU



UNIVERSITI TEKNIKAL MALAYSIA MELAKA

BORANG PENGESAHAN STATUS TESIS

JUDUL: (iBOOKS: KURIKULUM PEMANDUAN PEMANDU)

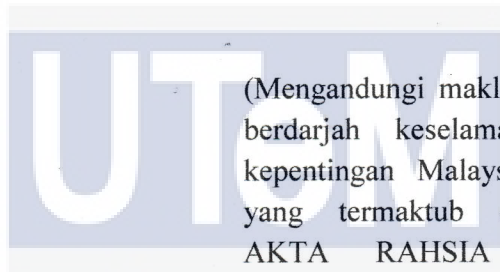
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iBOOKS : KURIKULUM PENDIDIKAN PEMANDU



**This report is submitted in partial fulfilment of the requirements for the
Bachelor of Computer Science (Interactive Media)**



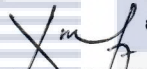
FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2016

DECLARATION

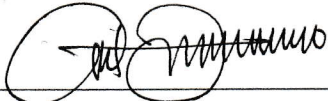
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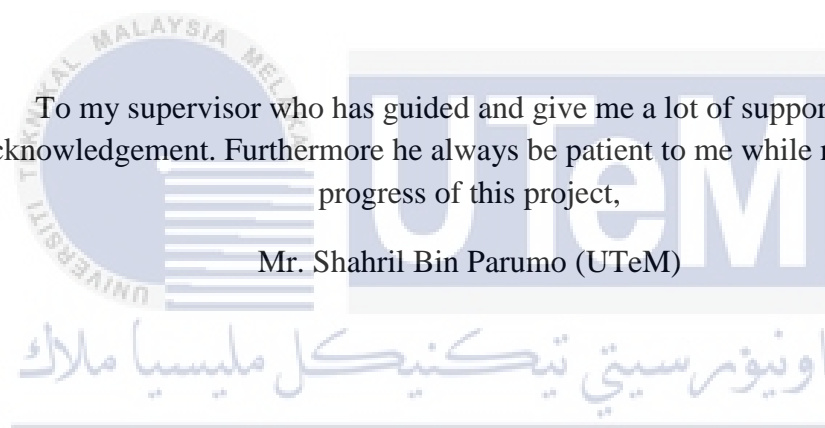
I hereby declare that I have read this report and found
this project report is sufficient in term of the scope and quality for the award of
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SUPERVISOR:  Date: 25 OGOS 2016

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DEDICATION

This final year project is dedicated to my beloved parents for their endless support and helps. They always pray the best for my success and give me lots of useful advices, financial and moral support in the process to develop this project.



To my supervisor who has guided and give me a lot of supports and acknowledgement. Furthermore he always be patient to me while making the progress of this project,

Mr. Shahril Bin Parumo (UTeM)

To my evaluator who gives a lot of good advices and feedback on this project,

Dr. Siti Nurul Mahfuzah Binti Mohamad (UTeM)

Last but not least, to all my beloved friends who always help me from the beginning of this project to the end of it.

ABSTRACT

The iPad is commonly used in the education sector especially for teaching and learning session. Furthermore, Universiti Teknikal Malaysia Melaka (UTeM) also has applied the usage of the iPad in their teaching and learning session. This is because it is proven that the iPad has the best mechanism for the education use such as iBooks. The iBooks is an e-book application developed by the Apple Inc. only for its iOS and OS X operating systems and devices. For this project, it is needed for the original textbook “Buku Kurikulum Panduan Pemandu” from Jabatan Pengangkutan Jalan Malaysia to evolve into a new phase of technology. This project is developed using every multimedia element such as Text, Graphic, Video, Animation and Audio. By evolving the original textbook into an iBooks, the product will be up-to-date to this new era. However, the development of this iBooks still need a lot of improvement such as strengthen the content and make the video more effective.

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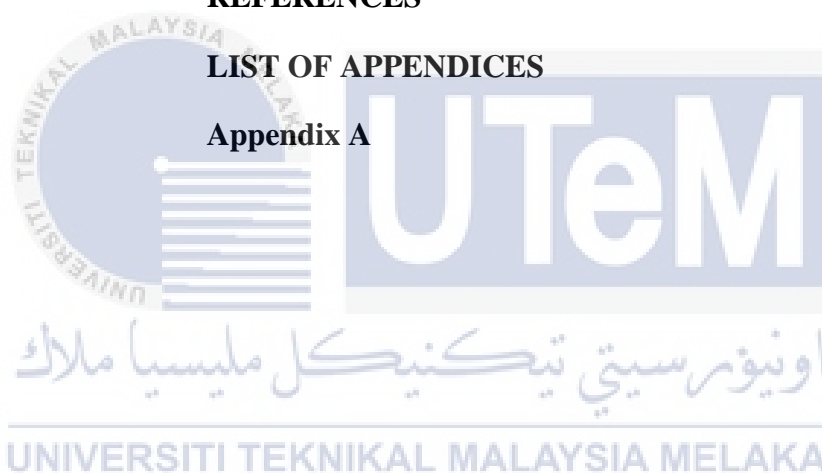
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CHAPTER I

INTRODUCTION

1.1 Project Background

Nowadays, technology used widely in education. Gadgets such as tablet and mobile devices are becoming vital because of the function built-in without doubt can replace laptop or personal computers. For an example, iPad is commonly used in the education sector for teaching and learning. This research applied quantitative approach within two phases of ADDIE model: Needs Analysis and Design Development (Bichelmeyer, 2005). Besides that, Universiti Teknikal Malaysia Melaka (UTeM) also has applied the usage of the iPad in their teaching and learning session. Not because it is trending, but it is proven that the iPad has the best mechanism for education such as iBooks. The iBooks is an e-book application developed by the Apple Inc. only for its iOS and OS X operating systems and devices. Furthermore, from the iBooks Store the iBooks primarily receives the Electronic Publication (EPUB) content and via data synchronization through iTunes users can also publish their own EPUB or PDF files. The iBooks content can be highlight, mark up, leaves notes and save as many bookmarks and the most important part, interactive diagrams, audio and video on the iPad can be displayed which means it is capable of displaying e-books that incorporate multimedia. This make it ideal for students and anyone else who is studying research and want to learn it in an interactive ways.

In this project, the development of the interactive materials through the iBooks is designed basically from the 'Buku Kurikulum Pemanduan Pemandu'

especially for those who will get the driver's license. However, it is also suitable for everyone who wants to learn how to drive. Furthermore, the old traditional books are not interactive for the participants to read the content or even in the teaching and learning session, the instructor need to explain more without further understanding. Participants will easily forget about what they have learnt and may not really understand and not having their attention in the KPP class because of the content are too linear, which include mostly text and still images. Therefore, the development of this interactive book will help in creating interactions in their learning process.

1.2 Problem Statement

Driving test should be an easy part of driving, but somehow there are still persons that fail the test. This means that the drivers are still not ready to drive safely on their own. Driver's Education Curriculum (DEC) is the main reference of the driving student who is taking the driving test. In this case, the candidate may not really understand and not having their attention in the class of Kurikulum Pemanduan Pemandu (KPP) because of the linear way of study, which include mostly text, and still images. Even though there are already lots of picture and brief explanations from the books and the instructor, there are still less that can catch their attention and understanding.

1.3 Objective

There are three objectives of this Driver's Education Curriculum. First, to investigate learning of smart driving through the iBooks which further the investigation on how the iBooks will improve in learning.

Second, to develop an iBooks for the Driver's Education Curriculum. This means that a version of iBooks for the Driver's Education Curriculum will be develop to enhance the existing medium.

Third, the product will be tested on the driver and non-driver to prove the effectiveness of the iBooks.

1.4 Scope

The project will focus on two major areas, which are the user and the content of the iBooks. Each of the scope is specified in section 1.4.1 and 1.4.2 for the specific users and content of the iBooks.

1.4.1 Specified User

The main target user for this iBooks is for all who will participate in the KPP class and for those who wants to learn on how to be a smart driver. Literally the iBooks is similar to a textbook. However, they cover more interactiveness and understanding about the topic that will be learnt. Therefore, the user will enjoy in the learning process.

1.4.2 Content of iBooks

Table 1.1: Content of iBooks

No.	Learning Object	Description
1	Video	There are videos for user to watch in this iBooks. The videos used to show user some of the steps that cannot be understand only by reading.
2	Animation	There are animations in the keynote slide. These animations enable user to be an active reader.
3	Interactive Image	There are several interactive images that enable user to see and click on the image. These images will pop out a brief description for user to understand more.
4	Quiz	There are quizzes in the form of widget for user to answer and let them to memorize the learning content.
5	Pop-Over	This pop-over image called 'Pengetahuan Am' which will give basic information about driving.

1.5 Project Significant

iBooks is an interactive application developed by Apple Inc. for its iOS and OS X operating systems and devices. Furthermore, from the iBooks Store the iBooks primarily receives the Electronic Publication (EPUB) content and via data synchronization through iTunes, users can also publish their own EPUB or PDF files. Additionally, through Safari or Apple Mail those files can be downloaded to iBooks. The iBooks content can be highlight, mark up, leaves notes and save as many bookmarks and the most important part, interactive diagrams, audio and video on the iPad can be displayed which means it is capable of displaying e-books that incorporate multimedia. This make it ideal for students and anyone else who is studying research and want to learn it in an interactive ways.

Learning on how to drive smartly is important not only to those who will get the driver's licence but also for the experience driver to gain more knowledge. Driving in traffic is more than just knowing how to operate with the mechanisms which control the vehicle; it also requires the knowledge on how to apply the rules of the road. An effective driver also has an intuitive understanding of the basic vehicle handling and can drive responsibly. However some part of driving is not easy to learn and understand by only in the theory classes. For an example, parallel parking is considered to be one of the hardest skills or new drivers to master and what is important it is a required part of most road tests. Without practical teaching it must be really hard to understand. The connection between this and iBooks is, by using the iBooks drivers can learn and understand through videos and animations rather than just read it before the practical class. Furthermore, the interactive slide and book will be used with a variety of media such as text, animation, audio, video and many more. Designing this content will assist user in engaging peoples, promote interactivity and accentuate concepts.

Basically, the idea of this project is to attract drivers to learn and understand more about this event to pass the driving test and the most important thing is on how to be a smart driver. Hopefully this project can drag drivers' attention in learning how to drive smartly and follow the road protocols.

1.6 Expected Output

- ***Commercial value product***

To develop an iBooks that has a high commercial value, this can be used for any driving lessons.

- ***Improvement of the existing system***

Some interactiveness was added to enhance the learning content to make it more effective and efficient.

- ***New discoveries***

New learning content were discovered and offer new, creative and innovative ideas using interactive iBooks.

1.7 Conclusion

In this chapter, the understanding of the project is reviewed. Furthermore, it is developed based on the objectives, project content and the project significance. Therefore, by using the interactive book the interactiveness can be spread. User will gain more information and understanding by learning the Driver's Education Curriculum.

CHAPTER II

LITERATURE REVIEW

2.1 Introduction

This chapter will discuss about the literature review which is related to the JPJ Course Module ‘Driver’s Education Curriculum” by using the Interactive Book on the iPad. Furthermore, the analysis, collected data and learning object from the existing projects will also be discussed in this chapter. The purpose of this chapter is to convey users about the ideas that have been established on the topic to show their strength and weaknesses.

Literature review is a work done on a particular topic which has been published in any form of findings such as books, journals, videos and many more. It is the best references to make a comparison between products. As the secondary sources, it gives the author the opportunity to keep update towards the latest publications.

It is all about the “Driver’s Education Curriculum”, from a textbook into a form of e-book. For this DEC, an interactive book will be developed by using iBooks Author and iPad as interactive learning tools for this course. Lastly, iBooks as the medium will be covered too in this chapter.

2.2 Domain

Interactive books for safety driving purpose are not progressively used nowadays; however from the growth of the technology people tend to find an application to help them study the event. Furthermore, due to a busy lifestyle, they demand something which is fast and easy to understand.

2.2.1 Driver's Education Curriculum

Safe driving is the top priority to reduce the number of deaths and inquiries on our nation's roadways. One of the top factors of the accidents is driver's misbehaviour and poor driving skills. Moreover, to have smart driving skills drivers not only need to attend driving schools to get a licence to be a competence driver but also understand and experience on the real life driving situation.

There are several phases to obtain driving license, which one of them is attending the Driver's Education Curriculum class. Moreover, in this class participants will have a lecture on smart and safety driving course and the rules of the road. They are given a textbook as the learning material which is quite traditional and unrealistic. This is not really interesting and hard to catch the candidates' attention.

Since the event is mainly about to educate and train them to the highest standards of competency and safety, therefore by using iBooks, they can actually pick up faster understanding and have a greater experience from the interactivity of multimedia components included.

2.2.2 iBooks vs. e-Book

In this modern era, most of the students have their own smart devices such as, iPad, smart phones and smart watch. This opportunity allows them to become limitless which enable them to access everything they want. Moreover, if we focus on the academic area we will found that the students have the ability to become more creative and innovative.

The .ibooks files format is just an extended of electronic publication (EPUB) with an extra properties and features added by the Apple once it has been made by the Apple iBooks. The difference between the iBooks and e-book is the addition to the .ibooks files of undocumented, proprietary XML namespaces and undocumented extensions to CSS, which include options for fonts, mathematical equation rendering, and many more. This allows some author tools like the iBooks Author to include widgets to be embedded into documents which is not supported by the EPUB.

According to Alberizzi, this research aimed at exploring the development and use of an interactive iBook, which include opportunities for readers to read independently and navigate through “transformative contents” (Alberizzi, 2013). Thus, an iBooks is a new style of study which creating an exploring experiences.

Besides that, this digital form of books let the user to learn with nine different default widgets. There are nine different modifiable default widgets in the program: Gallery, Media, Review, Keynote, Interactive Image, 3D, Scrolling Sidebar, Pop-Over, and HTML (Alberizzi, 2013). These widgets create interactiveness within the user to be an active reader.

Furthermore, the iBooks and iBooks Author offer an innovative way for students to explore and learn about the world, it is interactive, potentially sensitive to learner accessibility with features like text-to-speech and highlighting of critical information, may be useful in advancing the executive functioning performance of students with disabilities (Barkley, 1997; Meltzer & Krishnan, 2007).

2.3 Existing System

Textbook are too lengthy and limited in reference resources. Therefore, the use of iBooks now become progressively grows.

2.3.1 2016 California Driver Handbook

“2016 California Driver Handbook” is an iBooks published by the California Department of Motor Vehicles. This iBooks is formulated to help drivers or road users to master the aspects of safety and regulations that need to be practise on the road. The aspects of knowledge and integrated skills make up the backbone to this DEC.

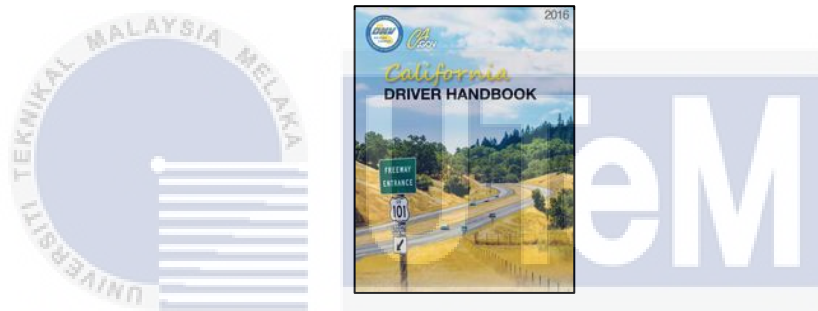


Figure 2.1: Cover Page of California Driver Handbook

Characteristic

In this iBooks, the authors only use minimum images. As the text are too lengthy in this book. I believe that the reader have no interest to continue reading. Besides that, each pages content with small text and not attractive in colour.

2.3.2 Driving School Notes

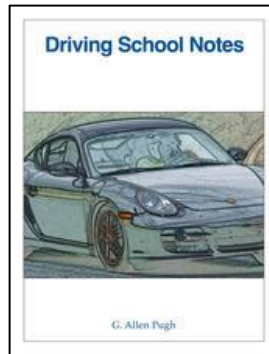


Figure 2.2: Cover Page of Driving School Notes

Characteristic

In this iBooks, the content is only the classroom presentation materials and the suggestions for the driving school instructor. Furthermore, there are no interactive content found in this iBooks.

2.3.3 Driving Safety: Alzheimer's Caregiving Tips



Figure 2.3: Cover Page for Driving Safety

Characteristic

Driving's Safety: Alzheimer's Caregiving Tips is a simple iBooks that built to help drivers to learn the road safety driving. Moreover, the content is not very attractive as it is full with text.