GATEWAY TO PERANAKAN CULTURE IN MALACCA (INTERACTIVE BOOK)



UNIVERSITI TEKNIKAL MALAYSIA MELAKA

BORANG PENGESAHAN STATUS TESIS

JUDUL: <u>GATEWAY TO PERANAKAN CULTURE IN MALACCA</u> (INTERACTIVE BOOK)

SESI PENGAJIAN:

Saya NURDIANA BINTI ZAHIR

mengaku membenarkan tesis Projek Sarjana Muda ini disimpan di Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dengan syarat-syarat kegunaan seperti berikut:

- 1. Tesis dan projek adalah hakmilik Universiti Teknikal Malaysia Melaka.
- 2. Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dibenarkan membuat salinan untuk tujuan pengajian sahaja.
- 3. Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dibenarkan membuat salinan tesis ini sebagai bahan pertukaran antara institusi pengajian tinggi.
- 4. ** Sila tandakan (/)
 _____ SULIT

(Mengandungi maklumat yang berdarjah keselamatan atau kepentingan Malaysia seperti yang termaktub di dalam AKTA RAHSIA RASMI 1972)

TERHAD

(Mengandungi maklumat TERHAD yang telah ditentukan oleh organisasi/badan di mana penyelidikan dijalankan)

_____ TIDAK TERHAD

UNIVERSITI TEKN

Tandatangan Penyelia:

TARISA MAKINA KINTAKANINGRUM Pensyarah Fakuiti Teknologi Maklumat dan Komunikasi Universiti Teknikai Malaysia Melaka (UTeM)

(TANDATANGAN PENULIS)

Alamat tetap: <u>1029</u>, <u>JALAN EMAS</u>

TARISA MAKINA KINTAKANINGRUM

SURIA TAMAN DELIMA, 08000

SUNGAI PETANI, KEDAH.

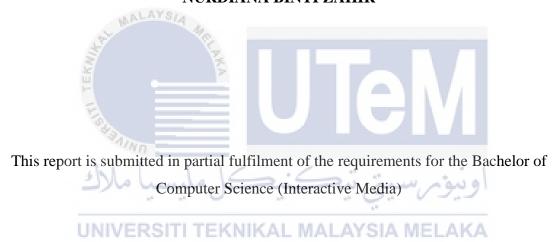
Tarikh: 11 AUGUST 2016 Tarikh: 11 AUGUST 2016

CATATAN: * Tesis dimaksudkan sebagai Laporan Akhir Projek Sarjana Muda (PSM)

** Jika tesis ini SULIT atau TERHAD, sila lampirkan surat daripada pihak berkuasa.

GATEWAY TO PERANAKAN CULTURE IN MALACCA (INTERACTIVE BOOK)

NURDIANA BINTI ZAHIR



FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2016

DECLARATION

I hereby declare that this project report entitled

GATEWAY TO PERANAKAN CULTURE IN MALACCA (INTERACTIVE BOOK)

is written by me and is my own effort and that no part has been plagiarized without citations.

Citations.

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

STUDENT: NURDIANA BINTI ZAHIR_ Date: 11 AUGUST 2016

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: TARISA MAKINA KINTANINGRUM Date: 11 AUGUST 2016

DEDICATION

This thesis is specially dedicated to my beloved mom and dad, brother and sister who have support me from the beginning of my studies with all their effort.

Also, this thesis is dedicated to my supervisor, Puan Tarisa Makina Kintakaningrum who has been a great second mom to me and the person who give me a great source of motivation, comments and suggestion to make sure that the thesis is finish right on time.

Finally, this thesis is dedicated to all my beloved friends that always supported me, encouraged me, guide and inspired me throughout the entire process. I will always appreciate in what all they have done.

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

ACKNOWLEDGEMENTS

Firstly, I would like to take this opportunity to express my greatest gratitude to Allah for giving me good health to complete the whole project. I would like to thank my supervisor Puan Tarisa Makina Kintakaningrum for all the positive support and guidance throughout the development of the project and writing thesis. The moral support, spirits and encouragement helps me a lot in completing the project.

I would like to express my deepest appreciation to my beloved parents and my family who have been an inspiration and had giving full moral support. All the motivation and advices are the best things make me keep up on learning and trying to make this project success.

Finally, all my beloved friends that always give me their tremendous support and also helping me a lot in this project. Thank you very much.

ABSTRACT

Gateway to Peranakan Culture in Malacca is an interactive digital book which the user is able to understand and knowing about the Baba and Nyonya culture in Malacca which lately might have been forgotten. At the same time, this interactive digital book about "Gateway to Peranakan Culture in Malacca" also developed to help promote our tourism in our country; Malaysia which is contains a lot of heritage places that once should visit. This interactive digital book is aimed for tourist from other country or within our country and also for the one who interested in knowing about other people culture such as Baba and Nyonya culture in Malacca. This interactive digital book is a portable electronic book that can be view in both computer and laptop and in mobile phone or smartphone. To gain a better experience, this interactive digital book can be view in an iPad or tablet with the better quality of resolution of 1024 x 768 px. It also available to be view in smartphone or other mobile phone that can support EPUB file format. This interactive book have combines the integration of multimedia elements which are text, graphics, audio, video and animation. Not more than that this interactive book also include certain interactivity elements such as navigation button for user to control the interactive content. There are seven main chapters in the report which are consists of Introduction, Literature Review and Methodology, Analysis, Design, Implementation, Testing and Project Conclusion. The methodology that has been applied is Waterfall model. The first step is analysis which is in the planning phase. The design phase has been cover on making a suitable design decision that fit with the content of the interactive book. Besides, the implementation phase has explains about a combination of multimedia element being used in the interactive book content. Whereas the testing phase is vital part of this project where the product is being tested to retrieve a feedback and opinions of the effectiveness of the interactive book in order to make an improvement in the future. Lastly, on the project conclusion has explains the specifics about the product strengths and weakness.

ABSTRAK

Gateway Budaya Peranakan di Melaka adalah sebuah buku digital interaktif yang pengguna itu dapat memahami dan mengetahui tentang budaya dan sejarah Baba dan Nyonya di Melaka yang akhir-akhir ini mungkin kian dilupakan. Pada masa yang sama,buku digital interaktif mengenai "Gateway Budaya Peranakan di Melaka" juga dibangunkan untuk membantu mempromosikan keindahan budaya dan warisan sejarah untuk pelancongan di negara kita; Malaysia yang mengandungi banyak tempat-tempat warisan yang pernah perlu anda kunjungi. Buku digital interaktif bertujuan untuk membantu pelancong dari luar negara mahupun dalam negara kita dan juga bagi orang yang berminat untuk mengetahui tentang budaya orang lain seperti Baba dan budaya Nyonya di Melaka. Buku digital interaktif adalah sebuah buku elektronik mudah alih yang boleh di lihat di kedua-dua komputer dan komputer riba dan telefon bimbit atau telefon pintar. Untuk mendapatkan pengalaman yang lebih baik, buku digital interaktif ini boleh di lihat di iPad atau tablet dengan kualiti yang lebih baik resolusi 1024 x 768 px. Ia juga boleh didapati sebagai pandangan dalam telefon pintar atau telefon mudah alih yang lain yang boleh menyokong format fail EPUB. Ini buku interaktif mempunyai menggabungkan integrasi elemen-elemen multimedia yang teks, grafik, audio, video dan animasi. Tidak lebih daripada itu buku interaktif ini juga merangkumi unsur-unsur interaktiviti tertentu seperti butang navigasi untuk pengguna untuk mengawal kandungan interaktif. Terdapat tujuh bab utama dalam laporan itu yang terdiri daripada Pengenalan, Kajian Literatur dan Kaedah, Analysis, Design, Pelaksanaan, Pengujian dan Kesimpulan Projek. Kaedah yang telah digunakan adalah model Waterfall. Langkah pertama adalah analisis yang berada dalam fasa perancangan. Fasa reka bentuk telah penutup kepada membuat keputusan reka bentuk yang sesuai yang sesuai dengan kandungan buku interaktif. Selain itu, fasa pelaksanaan mempunyai menerangkan tentang gabungan elemen multimedia yang digunakan dalam kandungan buku interaktif. Manakala fasa ujian adalah penting sebahagian daripada projek ini di mana produk itu diuji untuk mendapatkan maklum balas dan pendapat terhadap keberkesanan buku interaktif untuk membuat penambahbaikan pada masa hadapan. Akhir sekali, kesimpulan projek itu mempunyai menerangkan secara khusus tentang kekuatan produk dan kelemahan.

TABLE OF CONTENTS

CHAPTER	SUBJECT	PAGE
	DECLARATION	III
	DEDICATION	IV
	ACKNOWLEDGEMENT	${f V}$
	ABSTRACT	VI
	ABSTRAK	VII
	TABLE OF CONTENTS	VIII
	LIST OF TABLES	XII
	LIST OF FIGURE	XIII
CHAPTER I	INTRODUCTION	
	1.1 Project Background	1
3	1.2 Problem Statements	2
F	1.3 Objectives	2
喜	1.4 Scope	2
**	1.5 Project Significance	3
13	1.6 Conclusion	3
CHAPTER II	LITERATURE REVIEW AND PROJECT	
UNI	WETHODOLOGY MALAYSIA MELAKA	
	2.1 Introduction	4
	2.2 Domain	5
	2.2.1 What is an interactive book?	5
	2.2.2 How to develop a good interactive book?	6
	2.3 Other element to produce a good interactive book	8
	2.3.1 What is gamification?	8
	2.3.2 What are the benefits of gamification in reading	8
	process?	
	2.4 Multimedia?	9
	2.4.1 Why do we need multimedia in reading process?	9
	2.4.2 What are readers' perceptions on reading through	9
	interactive book?	

	2.5 What is History of Peranakan?	10
	2.5.1 Who read on History of Peranakan?	10
	2.6 Existing System	11
	2.7 Comparison of Existing System	14
	2.8 Project Methodology	16
	2.8.1 Data Gathering/Collecting	16
	2.8.2 Analysis Data	17
	2.8.3 Product Development Methodology	17
	2.8.4 Testing	18
	2.9 Project Requirements	19
	2.9.1 Software Requirements	19
	2.9.2 Hardware Requirement	20
	2.9.3 Conclusion	20
CHAPTER III	ANALYSIS	
TER	3.0 Introduction	21
E	3.1 Current Scenario Analysis	22
	3.2 Specific Technique	23
11/2	3.2.1 Interactive	23
	3.3 Requirement Analysis	27
UNIV	3.3.1 Reading Analysis MALAYSIA MELAKA	27
	3.3.2 User Requirement	28
	3.3.3 System Requirement	28
	3.3.4 Project Schedule and Milestones	29
	3.4 Conclusion	29
CHAPTER IV	DESIGN	
	4.0 Introduction	30
	4.1 Design/Product Process	30
	4.1.1 Navigation Structure	31
	4.2 Preliminary Design	31
	4.3 Initial Design	32
	4.4 Conclusion	35

CHAPTER V	IMPLEMENTATION	
	5.1 Introduction	36
	5.2 Media Creation	37
	5.2.1 Production of Text	37
	5.2.2 Production of Graphic	38
	5.2.3 Production of Animation	39
	5.2.4 Production of Video	40
	5.3 Media Integration	40
	5.4 Product Configuration Management	42
	5.5 Conclusion	42
CHAPTER VI	TESTING AND EVALUATION	
5	6.1 Introduction	42
3	6.2 Test Plan	43
TEX	6.2.1 Test User	44
E	6.2.2 Test Environment	44
-	6.2.3 Test Schedule	45
رك ا	6.3 Test Strategy	46
	6.4 Test Implementation	46
UNI	6.4.1 Test Description 6.4.2 Test Data	47 48
	6.5 Test Result and Analysis	50
	6.5.1 Based on Expert Questionnaire	50
	6.5.2 Based on User Questionnaire	52
	6.6 Conclusion	54
CHAPTER VII	CONCLUSION	
	7.1 Observation on Strengths and Weakness	55
	7.2 Propositions for Improvement	57
	7.3 Project Contribution	58
	7.4 Conclusion	58

REFERENCES 59

APPENDICES

LIST OF APPENDIXES

APPENDIX A: PROJECT SCHEDULE AND MILESTONE

APPENDIX B: STORYBOARD DESIGN

APPENDIX C: SCREENSHOT OF INTERACTIVE BOOK

APPENDIX D: USER QUESTIONNAIRE

APPENDIX E: EXPERT QUESTIONNAIRE



LIST OF TABLES

TABLE	TITLE	PAGE
Table 2.1	Comparison of Eletronic PDF Books	14
Table 3.1	Description about Project Schedule and Milestone	29
Table 6.1	Components should considered in Test Plan	43
Table 6.2	Schedule Test	45



LIST OF FIGURE

FIGURE	TITLE	PAGE
Figure 2.1	The Gateway To Peranakan Culture Pdf	11
Figure 2.2	Book Tour Baba & Nyonya House Museum	12
Figure 2.3	The Peranakan Magazine Singapore Issue 2 2012 Pdf	13
Figure 2.4	The Waterfall Model Guideline	17
Figure 3.1	The animation use in content of interactive book	24
Figure 3.2	The pop-up box of text appear when cursor tap on the button	25
Figure 3.4	Text, photo and vector-based use as cover page	26
Figure 4.1	Navigation Flow of the Interactive Book	31
Figure 4.2	Character use in Interactive Book	32
Figure 4.3	The Navigation Button in the contents page and its design	33
	interface sta	
Figure 4.4	Interface Design of page	34
Figure 4.5	Interface Design of page	34
Figure 5.1	Adobe Illustrator	38
Figure 5.2	Image design using Adobe Illustrator	38
Figure 5.3	Adobe Flash	39
Figure 5.4	او نبوتر سبت منگندگ ملکونوست	39
Figure 5.5	Video editing using Adobe Premiere Cs6	40
Figure 5.6	How to export InDesign file to EPUB format	41
Figure 5.7	How to transfer EPUB file to iPad through iTunes	41
Figure 6.1	Testing view and answer the questionnaire with tourists	48
Figure 6.2	Testing view and answer the questionnaire with the Nyonya	49
	expert	
Figure 6.5	Results of Usability Question	50
Figure 6.6	Results of Functionality Question	51
Figure 6.7	Results of User Interface Design question from Expert	52
	Questionnaire	
Figure 6.8	Results of Content question from Expert Questionnaire	53

CHAPTER I

INTRODUCTION

The History of Baba and Nyonya/Peranakan and its culture in Malacca interactive book focuses on the design and development of interactive book application. This interactive book is developed for the tourists whose came to visit heritage building in Malacca and other local people in our country.

Tourists are welcome and freely can access these interactive books that contain detail history of Baba and Nyonya/Peranakan through the internet and at the museum of Baba Nyonya. The content will be display and details out all from the beginning and origin of Peranakan, culture, lifestyle, cuisine, language and other that related. Reader will be providing with images and video that helps them to understand and know more about this Peranakan culture.

1.1 Project Background

This interactive book will be specifically developed for the use of tourists who will visit the heritage city, Malacca and for other local people around us. This interactive book will be really useful and helpful in attracting our readers to have and explore the history of Baba and Nyonya. Besides that, this interactive book wills certainly a lot different than any other brochure and fliers that we usually seen. This interactive book will be more interactive and user-friendly for us to interact which is very simple and easy to use.

1.2 Problem Statements

Recently this Baba and Nyonya/ Peranakan ethnics being slowly disappear. The uniqueness of the Baba and Nyonya may be one of the most talked about communities in Malaysia, but it is also one of the most misunderstood. This interactive book is developed to help overcome any misunderstood about Baba and Nyonya cultures which have at very least left that is uniquely came from blend of two cultures, Malay and Chinese.

1.3 Objectives

- a) To investigate the history and culture of Baba Nyonya/Peranakan in Malacca.
- b) To develop an interactive book that provides a complete detail about history and culture of Baba Nyonya/Peranakan.
- c) To test the effectiveness of the interactive books on people whether it's really helpful in making the history and culture of Baba Nyonya being remembered and known eventhough it's not much left exist among us.

1.4 Scope

The History of Baba and Nyonya/Peranakan and its culture interactive book is mainly being focuses on tourists and local people around us. This interactive book will provide information about this Peranakan history well by providing images and graphics elements that will make tourists more interested to explore.

1.5 Project Significance

This interactive book will be really user-friendly and helpful as an one medium to publicized the uniqueness of Baba and Nyonya/Peranakan ethnics and help in tourism promotion which will help to rise up again their culture among us from being forgotten.

1.6 Conclusion

The main purpose of developing this interactive book is to help the tourists and local people to explore and understand the culture of Baba and Nyonya/Peranakan that still remains among us that slowly being forgotten. This interactive book will be developing using Adobe InDesign CC 2015 and Adobe Illustrator for the overall development. Research and survey is being done as one of the techniques to determine the purpose and needs of developing this interactive book. The survey includes the observation and interview. There are several functions being included for the ease of use. User-friendly characteristics are being considered for the development of this interactive book.

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

To develop this product, a proportion of data is required such as about the interactive book content and the tools that suitable to use to produce this project. By using certain method of research which is searching using Internet on related article and journal as a reference. Not more than that, another method that I used to collect the information is by surveying and collecting data by visiting the museum of Baba and Nyonya. To make this interactive book to be more attractive and easily remembered by reader, we need to include some visual graphic and audio mediums. From the research that has been done, numerous related sources were read and understood to filter out important facts from each part. Those facts then were taken out to be used as supporting factors of this project.

2.2 Domain

2.2.1 What is an interactive book?

Nowadays, the interactive book has become one of the most advanced technology medium being used by reader or learner to receive information. From the definition interactive itself has explained that it usually involve the actions or input of a user.

Interactive book is any form of electronic book or a digital book that provides a reader centre model of information in which the user will interact with it to understand by themselves. Reader interaction is vital to the progression of any information being delivered. This interactive book usually consists of element text and image in digital form created on, presented by and readable on computers display or other digital devices that can support all of the content. Other component such as audio, video, animation or 3D modelling also have been considered as enhancements which one could use to achieve better understanding. This interactive book can be used by many users either as learning education or as information such as mini history book for tourism in a form of digital book. This method of delivering information is getting arise nowadays as one can access it anytime, anywhere as long as they have any digital device that can support this interactive book. By just having this interactive book in their device, it will helps user to easily understand and knowing the information on what they have been search for and they doesn't need to go directly visit to the place to get the information they want. Besides, all this information can be access all in one small device as long the device can support the entire requirement needed. Therefore, this kind of technology seems to be more preferable by anyone especially for tourist and reader whose would have interest to know more about historical places they want to visit. As this technology could help to expose the existences of some historical places in our country such as The Peranakan which slowly being forgotten.

2.2.2 How to develop a good interactive book?

In developing a good interactive book, many considerations have to be made. This is because, the upcoming technology that keep on growing really fast it needs a proper medium to spread and be introduced to user in its own useful way. According to article written by Philip Webb (1 August 2012), "Interactive books offer such tantalising advantages over traditional print that it's easy to be seduced into thinking reading experience which can only be improved by the introductions of interactions". According to Christopher Roosen (2010), "it is essential to focus on interface design and explore the contextual factors that surround the interface". In the race to bring interactive books to market, some of books might contain only text but it can be improved by include the text that can be enhanced with beautiful rotatable images, audio, animations, other methods through the content and other interactions. According to the considerations need in interface design to develop interactive book design it can be classify into few sections:

Physical

As we know the interaction between user and the interactive books usually involve the user input which will engage user to use their fingertips to touch and get immerse into it. To make the interactive books be a very user-friendly application, therefore the elements used for the user to interact must be big and suitable enough to be touched. This feature should be include as important elements as nowadays, system development were only being built made for computer use only where it involve the use of cursor (mouse input) to select (touch) an element. But for this interactive books, it is not only can be run in desktop but also can be run in any digital device such as smartphone, tablet, iPad and other handheld devices that can support EPUB file format. At the same moment, all the elements being used should be able to fit into the screen resolution size of a tablet or smartphone as its resolution not exactly the same as being display in desktop. All the elements required need to be constrained in small size screen (resolution).

Social

As the technology keeps on growing days by days, we already aware that there is no limitation on which group of people could access the iPad, digital device or smartphone. Therefore, as the interactive books itself is built for tablet or iPad use and display, so it should be able to be access for multiple purposes. For an example, an interactive book that is created for general reader such as a history book which mainly tells reader about certain culture. This interactive book will eventually being introduced to tourist and also might suitable being exposed as an education for those who have interest in history subject. Hence, the interactive book should use suitable elements in developing the interface design that suitable for standard all ages no matter young or old folks. Besides, from different perspective, the functionality of certain elements use should be arrange according to specific aged group of people.

Environmental

Nowadays people tend to use tablet, iPad or smartphone mostly at all places anywhere they go, whenever in a bus, at work even on a bed and travel also other places. The interaction must be functional from different figure of perspectives which will allow user to repeat interactions. While for the response for interactions should be clear as user may not be fully concentrating to the screen all the times. Besides, readers also need to be capable to pause and resume their reading as easily they desire. Not more than that, they also able to put a bookmark on certain pages they want which will quickly mark their place. Other important thing is location which will help user/reader unlock the chapter they desire by just go to specific locations. While the contents could display a reference to certain places or objects.

In the conclusion, these interactive books are a unique chance to blend a number of disciplines, including art, storytelling, and information and interaction design. This interactive book unlocks users from their desks or chairs and let them take their experiences out into the world by exploring through the interactive books. Although a touchscreen devices just show the content of normal book, the audio, video and other interaction will help user to get engage and interact with the interactive books.

2.3 Other element to produce a good interactive book

2.3.1 What is gamification?

MALAYSIA

Gamification is the idea of applying game mechanism and game design techniques to engage and motivate people to achieve their target desire. According to article written by Marianne Martens (2014), "technology enables the use of gamification to motivate people in different spheres, from business to fitness, to charity, to education and now also to reading". This article has shown that game elements play an important role in making good interactive books.

2.3.2 What are the benefits of gamification in reading process?

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

According to the article written by Christopher Pappas (2014), "gamification in eLearning has become increasingly popular since it offers a wide range of advantages for learners can help to make the overall eLearning experience not only more enjoyable but more effective too." Thus, it is believed that, this interactive book will be very useful and effective in keeping the readers' attention for prolonged time in reading and understanding the history of Peranakan Culture as reader can use this interactive books to explore on their own.

2.4 Multimedia?

2.4.1 Why do we need multimedia in reading process?

According to The National Reading Panel (2000), multimedia reading materials and environments propose a variety of adaptable supports including text-to-speech, voice recognition, animation, music and audio effects which support reading for struggling readers. Hence, implementing multimedia elements in interactive book will be beneficial in capturing the readers' attention and increase readers' retention towards better learning and understanding.

2.4.2 What are readers' perceptions on reading through interactive book?

According to the article written by Kalina Dancheva (2011), "the efficiency, speed and interactive nature of the digital environment have encouraged the rapid proliferation of e-books and invite readers to recognize the interface of the computer as natural environment for the book." This new innovation of book offers the readers to engage in variety environment and also opens new field of exploration by using exciting multimedia elements such as animation, video, graphic and audio.

2.5 What is History of Peranakan?

The word Peranakan in general denotes to people of mixed Chinese and Malay/Indonesian heritage. Many Peranakans trace their origins to 15th-century Malacca where their descendants were thought to be Chinese dealers who married local women. Peranakan males are known as Babas while the females are known as Nonyas (or Nyonyas). While some Peranakans have retained many of their actual cultural practices, many have adapted into the larger Chinese community today.

The term Peranakan is a Malay word that means "local born" and has mostly been used to denote to the Peranakan Chinese. However, not entirely Peranakans are of Chinese origin. In the Straits Settlements, there was a small but significant community of Peranakan Indians known as Chitty Melaka.

2.5.1 Who read on History of Peranakan?

Nowadays, the History and Culture of Baba Nyonya/Peranakan is slowly being forgotten. Even the tourist that came by to our country did not get a chance to explore more on this Peranakan culture. Not to mention to other local people in our country, they also not even really know details about Baba Nyonya culture that are just living around them.

It is very obvious to say that anyone can read the history book. It does not matter what topics are the history tells. For this product, it is very suitable be use by tourist from outside of our country whose they want to know and explore about the History of Peranakan in Malacca. This interactive books also can be use by local people which they might want to know more about their own existence culture that slowly disappear and being forgotten.