INTERACTIVE BOOK THE HEALTHY LIFE STYLE

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BORANG PENGESAHAN STATUS TESIS

JUDUL: <u>INTERACTIVE BOOK FOR THE HEALTHY LIFE STYLE</u>

SESI PENGAJIAN: 2015/2016

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INTERACTIVE BOOK THE HEALTHY LIFE STYLE

NUR SYAHIRAH BINTI MD.SALEH

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

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
2016

DECLARATION

I hereby declare that this project report entitled

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

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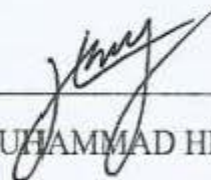
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DEDICATION

This final project is dedicated to my beloved parents and family for their endless support and helps when I need it, always pray the best for me and give me a lot of useful advices in process of develop this project.

To my supervisor who has guided and give me a lot of supports and always be patient with me during to complete this project,

En Muhammad Helmy Emran (UTeM)

To my evaluator who give good advice and feedback on this project,

Pn Shahrul Badariah Mat Sah (UTeM)

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

ACKNOWLEDGEMENT

Bismillahirrahmanirrahim.

Firstly I would like to give all the praise to Allah S.W.T for giving me strength and patient for develop and complete this project.

I would like to thank to people around me who never give up to keep support me, guide and help me during the development of this project. I am highly indebted to my supervisor, En Muhammad Helmy Emran for his guidance, and kindness in completing this project.

Hence I would like to give a big thanks to my family especially my parents who always stay by my side when I need them. With their support I cannot complete this project successfully.

Besides that, I would like to express my special gratitude to all my friends, from start and until the project has been complete.

Thanks to my Faculty who willingly give I used all the equipment. I gain knowledge a lot while I develop this product. Hence I can apply my skill about what I have learned from first year until last year.

Thank you.

ABSTRACT

Healthy life style can be defined as practice of a positive healthy life style and active do by individuals regardless of age. For example, healthy nutrition's food, adequate sleep and physical activities such as exercise. But unfortunately many people do not practice a healthy life style because of busy being as a student and workers. As we know there are many types of health books that only come with a lot of text with no graphics and animation in it. Thus the existence of "Interactive Book The Healthy Life Style "it can helps users to learn how to get a healthy life style with easily and faster. This project is developed by using Adobe InDesign, Adobe Flash, Adobe Illustrator and Adobe Photoshop. By developing this Interactive Book, The analysis have found that users understand more and enjoy interact with graphics and animation in load such as a quiz game, video exercise and etc. However, the interactive book still need improving such as need to reduce the text and replace with graphics or image more to help users more understands.

ABSTRAK

Gaya Hidup Sihat boleh didefinisikan sebagai amalan gaya hidup sihat yang positif dan cergas yang dilakukan oleh seseorang individu tidak mengira peringkat umur. Sebagai contoh, mengamalkan penjagaan makanan yang berkhasiat, waktu tidur yang mencukupi dan juga melakukan aktiviti fizikal seperti bersenam. Tetapi malangnya ramai orang yang tidak mengamalkan gaya hidup sihat di sebabkan kesibuk kan sebagai pelajar atau pekerja. Seperti yang kita sedia tahu terdapat banyak jenis buku kesihatan yang hanya dimuatkan dengan teks yang banyak tanpa ada grafik dan animasi di dalamnya. Oleh itu dengan wujudnya "Interactive Book The Healthy Life Style" ini dapat membantu pengguna untuk mengetahui cara-cara mengamalkan gaya hidup sihat dengan mudah dan cepat. Projek ini telah dibangukan dengan menggunakan perisian Adode Indesign, Adobe Flash, Adobe illustrator dan Adobe Photoshop. Dengan membangunkan interaktif book ini kajian mendapati pengguna lebih memahami dan berasa seronok berinteraksi dengan grafik dan animasi yang di muatkan contohnya seperti permainan kuiz, video senaman dan sebgainya. Walaubagaimanapun interaktif book ini masih memerlukan penambahbaikkan seperti perlu mengurangkan teks dan diganti dengan grafik atau imej yang lebih banyak untuk memudahkan pengguna lebih memahami.

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CHAPTER I

INTRODUCTION

1.1   Project Background

This product is on developing interactive book to provide information and guidelines about healthy lifestyle for everyone. As we know, the number of patients who suffered from obesity, diabetes, hypertension and heart disease has increased due to poor dietary habits and an unhealthy lifestyle. Furthermore according to the research, which often get the disease due to lack of exercise due to environmental conditions that are busy and have no time to knowing and learn the techniques and how to practice the right healthy lifestyle. The research have also shown that the cause of unhealthy lifestyle practices is due not take breakfast. Individual taking breakfast rich in complex carbohydrates, allowing them to concentrate on their studies and solve problems better. So in this era, I produce interactive book as the best tool to give information and generate knowledge about healthy life style practices guide.

1.2 Problem Statement

The problem is life expectancy still low compared to advanced countries. For example in japan, the average life expectancy for Japanese men is 80.5 years of age, while for women, life expectancy was calculated at 86.83 years of age. Both groups increased by 0.29 and 0.22 years respectively over 2013. This data provided by Department of Statistics Malaysia (2013). Furthermore to get within 4 year Malaysia country should produce healthy citizens.

1.3 Objectives

This project intention to embark to these objectives:
a. To investigate about healthy life style.
b. To develop an interactive book about healthy life style.
c. To evaluate aspects of usability of this interactive book towards target audiences.

1.4 Project Scope

This project is target to people who always busy with their life especially workers and adults around 21 years old and 40 years old in Malaysia. This project will focus on how to manage our personal care, time management, healthy eating, how to control stress and etc. It also will consist about fitness likes how to get healthy life style, simple exercise or step to get a healthy body. This project will be develop by using Adobe InDesign CS6 for creating interactive book. Adobe Photoshop and Adobe illustrator CS6 to edit and design image and Adobe Premiere CS6 to edit video. The final output will be in interactive PDF content.

1.5   Project Significant

This is interactive books will be use to workers and adults among 21 and 40 year old. This interactive books will commercialize to Kementerian Kesihatan Malaysia or other relates bodies.

1.6   Expected output

The expected output or result is for this project is to produce interactive book and to help people understand how to live with healthy life style.

1.7   Conclusion

In conclusion, researcher hope by completing this project it will help user to obtain healthy life style easily. Moreover, many people can live with longer life expectancy. Hence, Vision 2020, Malaysia within four years will accomplished.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

In developing this project, a lot of information are needed especially about the interactive Book and the software that are require during this project. Besides that, we need to know the domain studies and the methodology to develop this interactive books.

The domain studies that are very close to develop this project is interactive books and the output will be in the PDF content. For the methodology, ADDIE model is applied during the competition of this project. The ADDIE model is approach to meet the specification of learning application development. Besides that, the project requirement for this project like software and hardware requirements are defined in this chapter.

For a better understand for this project, it is wise to make an observation on the development and studies in interactive book for healthy lifestyle. There are many local institutions or international using interactive book in spreading information. It is more helpful by referring from other research for ideas on development of interactive book for healthy life style.

2.2 Domain

To study about the interactive elements in developing interactive book. Beside that to make user more easier while achieving healthy life style by using this interactive book .There are some multimedia elements will be discuss in the content which is text, images, video animation and sound. The platform that will be use is in PDF content.

2.2.1 What is an Interactive Books?

Interactive Book is a digital book that to improve and encourage people to get best learner of the studies by theirs themselves. Interactive book also consist of graphics, animation, sound, video and interactive part. Hence it also have an elements that can be viewed by 3D viewing. This way is suitable especially in educations and

2.2.2 How to develop a good interactive book?

In developing interactive book it has many consideration has been made. According to Christapher Roosen (2010), when developing interactive book developer need to know the content and the contextual design. For Design it consist of four types need to concern which are physical, social, environmental and technological contexts.

    i.   Physical

Our fingertip is larger than the cursor. So that the elements must large but small enough to fit into a constrained screen size. Hence when designing arm strength is also need to be concern. This is because a person can be work for hours with nonstop interaction with keyboard and mouse.

    ii.   Social

There's is no limitation of age people use a tablet device. So this interactive book is developed for multiple people. For example it is created for

children between their, parents, teachers or siblings. It is to encourage social relationship.

iii.   Environmental

The interaction of the interactive book must be usable from a number of angles. The user should can give a feedback and use the interaction without difficulties. This is because, the user may not be give attention on the screen all the times. So with the feedback is required to alert the user with current selection.

According to Charistaper Roosen she agree and encourage that interactive book need to be commercialize because it's can give experience to those who will use it and it's consist of a lot elements interactivity such as video, sound and interaction.

2.2.3   What are the tool used developed in Interactive Book?

The tools to develop can be used using Adobe InDesign. According to Galen Gruman Adobe InDesign can be exported in many format such as Adobe PDF (Interactive), SWF and also eBook for iOS. Besides that Using Adobe InDesign it can create many function of interactivity such as video, sound, image and animation. Even though, the elements will be change according to the type of format that will view. For example if user want view in iOS they need to change the animation from SWF save to animated gif. So that the animation can be play.

2.2.4   What are the output of Interactive Book?

a.   Portable Document Format (PDF)

PDF is a file format that provides an electronic image of text and graphics that looks like a printed document and can be viewed, printed, and electronically transmitted. PDF is the content that will be the platform of the interactive books. By using PDF is the platform that have a lot of advantages. This is because it can be easily altered without leaving an electronic footprint. Besides that, you don't need an internet

connection to open the files. However if you do have access to the internet, any links within the document are active. For handy tip you can also save word files on your computer as PDFs and email them to yourself and open on your iPad for viewing in interactive books.

b. Shockwave Flash File Format (SWF)

SWF is a file extension for shockwave Flash file format. It can consist of video or vector refers to animations and sound. It also can be viewed in web browser using the flash plug in. According to Sandee Cohen (2012) is user can view the swf output for interactive book but need to view in the PDF Acrobat. Because the common adobe reader are nor supported for interactivity in interactive book such as video and sound. But SWF it is not compatible in mobile apps like android.

2.3 Existing System

Developer does the research about the type approaches to learn about healthy lifestyle. By researching over the internet, there are several data gathered. The data would be use for this project. There are some existing system that are approaches to this project:

1. eBooks for 100 weight loss quick tips

This product by Kevin Zahri is about interactive book how user can loss weight quick. This interactive book consist of some interaction for user for example video. It also consist of some information about how to get healthy body, exercise tips, supplements, water retention, metabolism and more. He also has launched many interactive book that are related about healthy. According to the author, focus is clear. Health and Fitness education for the masses
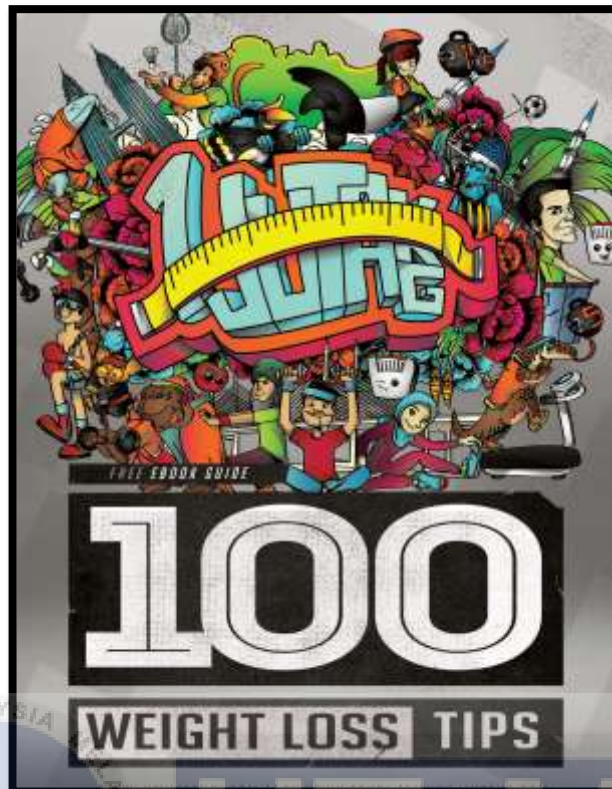
Figure 2.1 Example of eBook cover

Figure 2.2 Example of content in eBook

2. "The ultimate health & energy Plan" Textbook module

This book is about how to manage our self to get healthy life. This book are focus to people who always busy and don't have much time to gain healthy life. This book will teach and give some tips or information about nutrition, exercise, time management and etc. This text book are consist of seven chapter. Besides that, the information provided in point form. The characteristic of this textbook is the writer did not use any images and figure. There only just text and consist of black and white page. Furthermore in every page it consist of small text font.
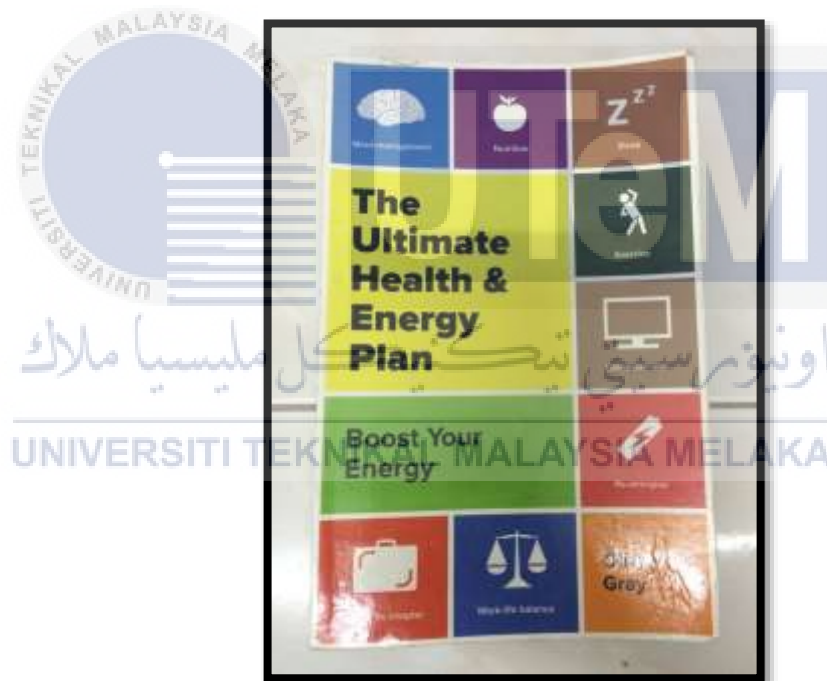
Figure 2.3 cover page of the text book

Figure 2.4 list of content of the text book.

2.3.1 Comparison of Existing System

Table 2.1 Comparison Existing System

Existing Module	eBook	Textbook
Graphic appearance	Good	Not so good
Interface Design	• The background of color is too simple • No interactive elements	• Use a lot of text • The background color and text is just black and white. • Do not have any image
Multimedia elements	• Limited use of multimedia elements	• Limited use of multimedia elements
Level of interactivity	• Moderate	• No interactivity

2.4   Project Methodology

The proposed of this projects will be use ADDIE process model. ADDIE model consist of five phases which are analysis, design, development, implementation and evaluation.

2.4.1   ADDIE model

a. **Analysis**

In this phases current scenario analysis will be discus such generic flow of existing scenario based on user and system requirement. In the requirement analysis will define the functionality of the product, interface and inputs.

b. **Design**

In this phase will tell about process of developing the product. It also will define about architecture view and interface of the product. The design need to be describe about the interactive elements and the storyboard of the interface. All the five elements of multimedia which is text, audio, images, video and animation will be use during the development of the product.

c. **Development**

In this phase developer will start develop the product by using guideline from previous phase the developer will use story board that have been sketching and draft before.

d. **Implementation**

In this phase the developer will implement all the multimedia elements that have been decide before. Besides that, the developer will apply interactive elements into the product. Furthermore, the related media creation, media

integration, product configuration management and implementation will be discuss in this phase.

e. **Evaluate**

In this phase, the product will be evaluate. To know good and bad how this product some testing will be carried out.

2.4.2 Instructional Design

Educational Goals

The goal for the interactive book "The healthy life style" is shown below:

- To give a guide line to user understand about healthy life style management.
- Give user more enjoyable while read the interactive book.

2.4.3 Flowchart
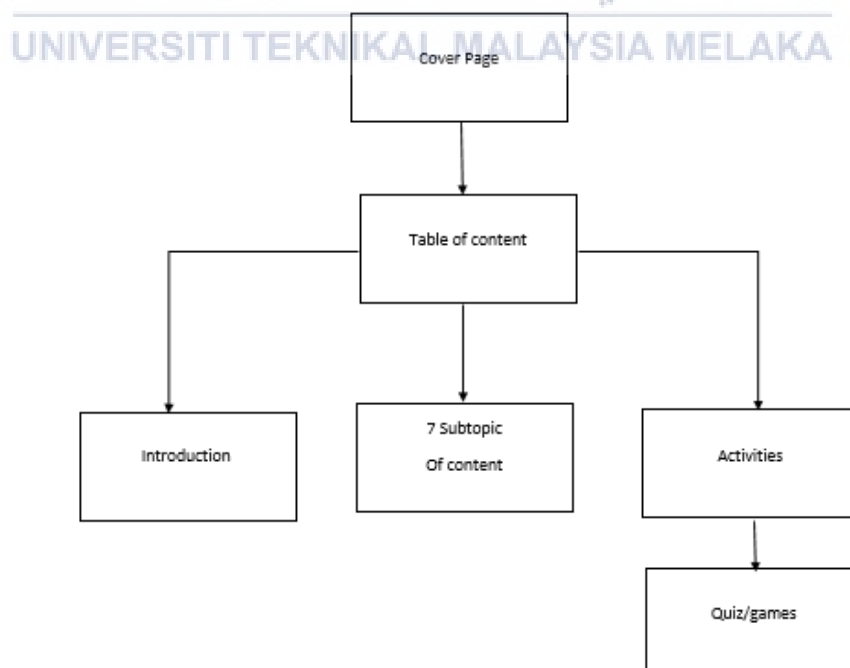
Figure 2.5 Flowchart of system

2.4.4 Comprehensive Flowchart Module content of system

There are seven content and consist of one introduction and activities part that will be include in this product. Seven content consist of video, text, images, animation, pop over and etc. will be provide in this interactive book. All the content will give a simple tips and guise to user to get better healthy life style.

Table 2.2 Comprehensive Flowchart of system Module content

Subtopic	Title
Subtopic 1	Introduction
Subtopic 2	Mind management
Subtopic 3	Nutrition
Subtopic 4	Sleep
Subtopic 5	Exercise
Subtopic 6	Re- energies
Subtopic 7	Computer Use
Subtopic 8	Work Life Balance
Subtopic 9	Activities

2.5 Project Requirement

The project requirement is a list of inquiring that is acquire for the project to proceed to the next stage and bring to the completion of the project.

2.5.1 Software Requirement

- Adobe Premier Pro CS6
- Adobe Photoshop CS6
- Adobe illustrator CS6

- Adobe InDesign CS6
- Microsoft Office 2013

2.5.2 Hardware Requirement

- Personal Computer
- Camera DSLR
- Tripod
- Touro Hardisk

2.6 Conclusion

In Conclusion, developer choose Pdf, this because it can be access easily for many people. Hence it also suitable to any laptop version just except in iOS format.

This chapter has been endeavor to underline the essentials of utilizing interactive Books as the method for spreading information's about healthy life style. Besides that, this chapter was also explain and show some existing system that have been used before this. For the next chapter, it would be discussing about analyzing the problem that would be encountered during the interactive book making process.

CHAPTER III

ANALYSIS

3.1 Introduction

In this chapter, using the information made in the previous chapter, the next step would be analyses the data collected. This chapter will explain about current scenario analysis which is contain generic flow of existing scenario in more details for examples user and system requirement. This chapter will be cover the important phases which is developing the product. Chapter Analysis focus in problem area and apprehensive to make sure the accurateness and comprehensiveness of the requirement. In the requirement analysis will define on the functionality of the product, interface and inputs. The purpose on this chapter is to obtain understanding on the developing on the product.

3.2 Current Scenario Analysis

This phases will describe the current scenario of the existed system that have been produce before. All the data and the information is important because it could lead to another future scenario into the new proposed project. Moreover, it will help to improve and enhance the quality of the product.

a)   eBook "100 lost weight tips" by Kevin Zahri

As I have been mention before in chapter II. This eBook give information about how to get loss faster weigh with simple tips. It contain of text, some vector and video. This product also have some interactive link to go to another browser. It also consist of video that can help user to more understand about the content inside of it. The purpose of this product is to help user to lose weight together with effective and faster and to make difference from other medium. He also said his online eBook series have sold over 60,000 copies, including the popular title "How to lose 5kg in 5 Weeks". For get more eBook, here is the website
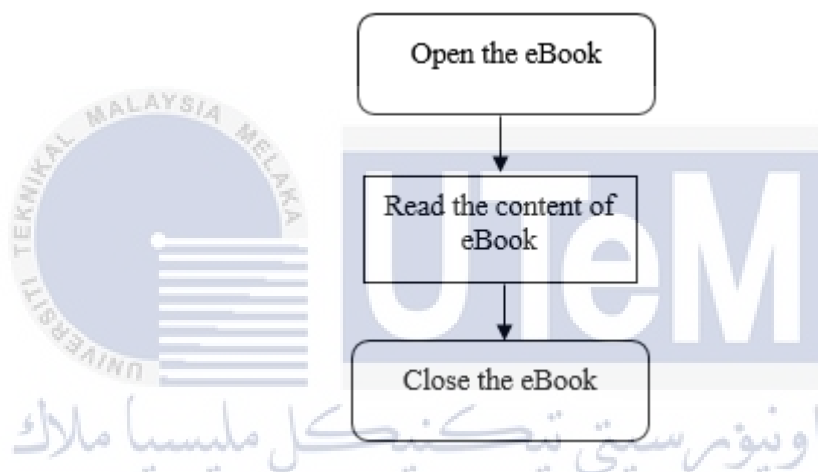
Figure 3.1 Flowchart of eBook

Table 3.1 Advantages and Disadvantages of eBook "100 lost weight tips"

Advantages	Disadvantages
• Have many vector to attract user read boring while read the eBook	• The text is too small • Not have many interactive part

b) "The ultimate health & energy Plan" Textbook module

The textbook material does not involved any device technology. It is printed papers that allow users to read the content inside of it. "The Ultimate health

& energy Plan" is a book write by Oliver Gray. This book is discussed more about healthy plan management for busy people for example like workers or student. This books contains explanation of a topic about management of healthy life style for example healthy nutrition.

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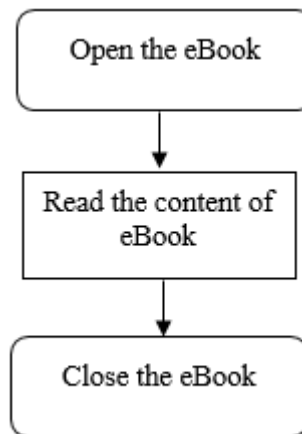
Figure 3.2 Flowchart of Textbook

In this textbook the writer did not use images and any figure. Furthermore the text also just only black and white. The content of this textbook also is packed with text writing. In every page it consist of small font and the font is too serious to read. Besides that the textbook did not have interactive part to attract the user read. Even though that, this textbook content is provide in point form. So it make user easy to know the important information's

Table 3.2 Advantages and Disadvantages of Textbook

Advantages	Disadvantages
• The content in point form	• To many text • Font is small • No images

3.3   Specific Technique

3.3.1   Interactive Technique.

In this product, by using Adobe InDesign CS6 as a platform to produce the product, there are many type of elements interactive that can be produce by this platform.

i.   **Animation**

For this elements, the animation will appear in the text .it will make more interesting to user read the interactive book. This animation is create by adobe flash and the output will save as SWF. This animation will be used in calculation of calories computer use, game and quiz.

ii.   **Pop-Out/Rollover**

For this elements, user can simply tap the image and the image will pop out and some information's will appears. This will help the user more interact to the interactive book. This pop out will be display in nutrition content.

Figure 3.3 Pop-Out element

iii.   Interactive Image

This elements is want to give more information's to user while using an interactive image. When user click the images, some information's or text will appears. This interactive image will be display in nutrition content in healthy eating plat information.

Figure 3.4 Interactive Image elements

iv.   Media

This Interactive book PDF can also provide video and audio as an interactive elements. There are type of video format which is mp4, mp3 and SWF. This video will help user more understand and effective learning process. This video will be appears in exercises content which is consist of three video.

Figure 3.5 Video format in mp4

3.4 **Requirement Analysis**

Requirement analysis is an important process to understand user requirement. It also is a process to analysis the product need to be develop and how the interactive book could be modified. This is to help to achieve the objective with easily.

3.4.1 **Project Analysis**

a. Need Analysis

As I mentioned before, there are many people are too busy with their life especially workers and student. So they don't have many time to achieve healthy life style. Even more than that, people nowadays are love to use digital platform as tools to get information or reference. Moreover it have been proven by Kevin Zahri eBooks, there are many user have been access his eBook and already proven effectiveness.

b. User Analysis

In this phase the most important things is to decide the interactive and multimedia elements that need to be used in this product. This is because the target user for this product is young Adult and workers. So by seeing current situation especially in technologies, people are love to use their gadgets as medium to get information or even read an interactive book. This product will help people to get knowledge about healthy life style with simple tips. This product will be develop in interactive way to attract the user and enjoyable during use it.

c. Technical Analysis

Technically, the interactive book are design based on iPad or tablet view. The development of interactive book requires a lot of time

and effort. There are many multimedia elements that will be used to develop this product which is text, images, video and animations. It also consist some activities which is puzzle game and quiz. There will contained seven chapter in this interactive book**.** The output of interactive book will be display in PDF and can be access in any platform.

d. Resources Analysis

The content of this project will outline based on health books, eBooks and website. The content of this product will cover seven chapter oh "The healthy life style" content. All the content and elements were developed in this product like video and picture are taken by own.

3.5   Project Schedule

Table 3.3 Project Schedule

No.	Activity	Roles	Start Date (2015)	End Date (2015)	Result
1.	Production Planning	Student	22 Feb	25 Feb	Propose preferred supervisor
2.	Interactive book design	Student	26 Feb	23 March	Submit proposal through email
3.	Develop interactive book – create content	Student	24 March	5 April	Acceptance or rejected
4.	Editing and correcting	Student	6 April	19 April	Supervisor and examiner check the proposal

5.	Redesign	Student	20 April	24 Mei	Make corrections for proposal
6.	Testing and evaluate	Student and supervisor	25 Mei	Jun	Start develop the system with guided from the supervisor

3.6   Conclusion

For the conclusion, analysis phase is so important in order to get data requirement for the product. Throughout the analysis, the advantages and disadvantages of the existing products can be mark out. Based on the advantages it will help to make an improvement for the product the will be develop. The next chapter will discuss about the design of this project including the system architecture and user interface design. In this chapter, the prototype of this project will be explained too.

CHAPTER IV

DESIGN

4.1 Introduction

In this chapter is discuss about design phase. Design phases is defined as a process of developing the product. It also will define about architecture view and interface of the product. The design need to be describe about the interactive elements and the storyboard of the interface. All the five elements of multimedia which is text, audio, images, video and animation will be use during the development of the product.

4.2 Design/ Product process

Making a plan is important while developing a product. By starting with design process it could help the developer more easily when apply in final product. It is a guideline that have start and finish step. Besides that, during design process, design architecture and product development is important to explain the interface design and the entire step need when development the interactive book.

4.3   Design Architecture

Design architecture is shown the basic flow the interactive book and how it work. This interactive book will able to be used by using iPad, tablet, any smartphone and laptop. This interactive book consist of seven chapter and one introduction part and one activities part.
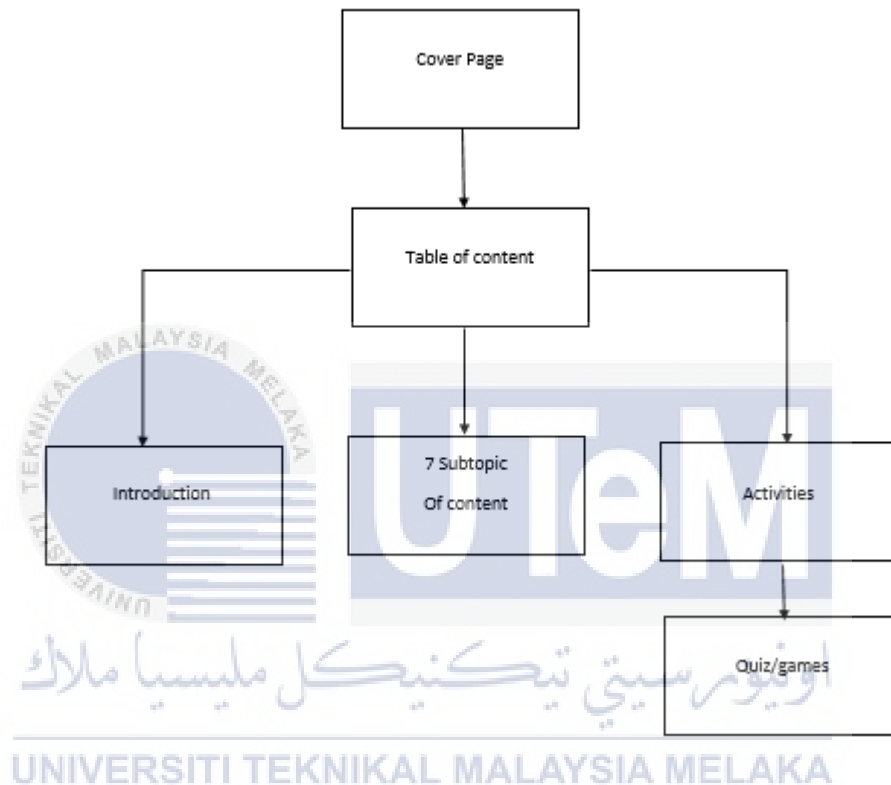

Figure 4.1 Flowchart of system

4.4   Preliminary Design

Preliminary Design is the first process of the design phases. During this stage, the higher design concept will be implemented. In this stage will discuss a few part which is concept design, color design and storyboard.

4.4.1 Concept Design

The main objective to create this product is to make user easier to get information about healthy life style management. After do comparison with the existing system interactive book is the best platform to user or author to use in this product.

For the first step is need to do in concept design is to find the theme concept design of the interactive book. We need to make the design based on who is target user. This is to attract user and more enjoyable while using the interactive book. Second, need to draft list of the content that should be include in the interactive book. In this part lust list the topic or chapter about "The healthy life style". After that, need to decide type of font and size of the font of the text should be use in the product. In addition, need to know also what type of the interactive elements will be use in the product. After all the sketch are done, make work breakdown structure after development the product in the real.
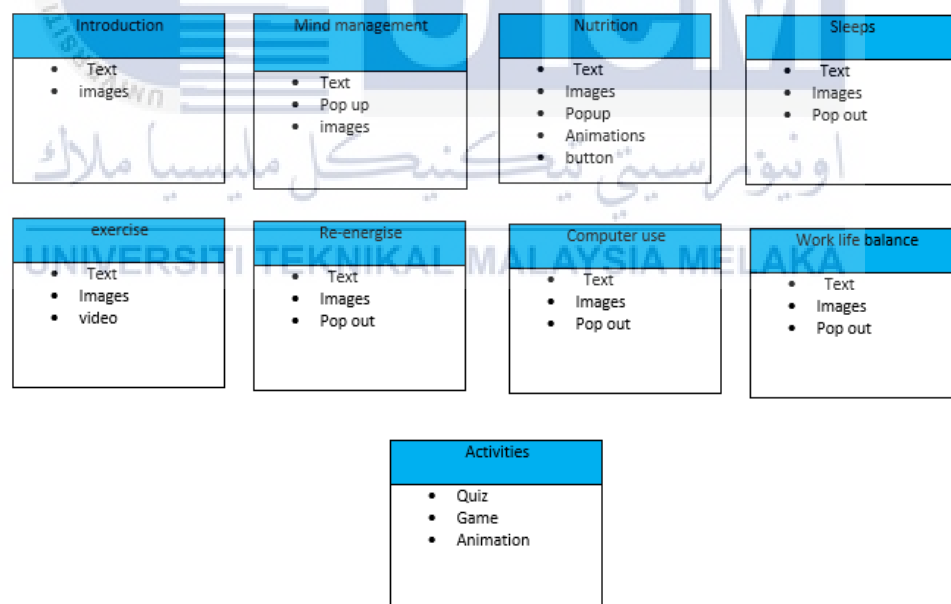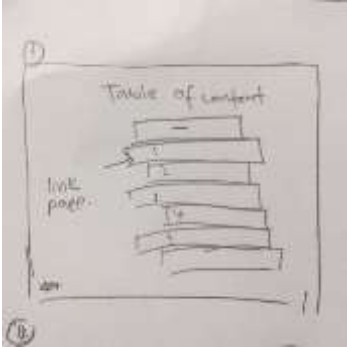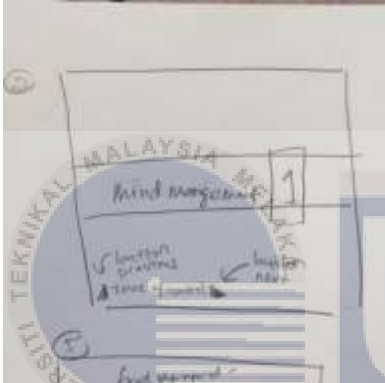

Figure 4.2 Work Breakdown structure

4.4.2 Storyboard Design

Storyboard is a guideline before developing the interactive book. It will help developer more understand when applying with the real one.

Table 4.1 Storyboard design

sketching	Interactive book
This is table of content design.	
This is design first page in every chapter. There are consist of button previous page, table of content and next page in the master page.	
This design define about when user touch the title of every info, pop out yellow box will appear in the text. This is to give a highlight about important info to the user.	
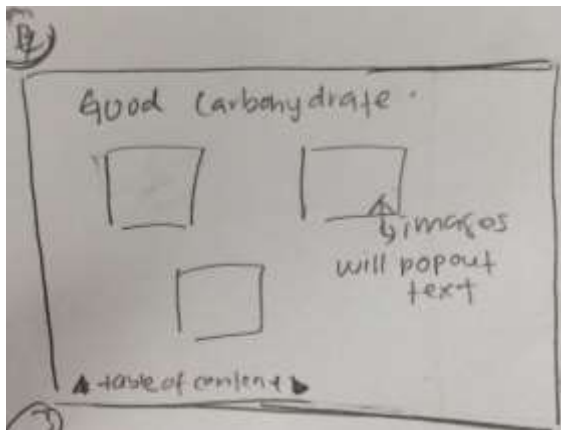
This design tell about when user touch the image, pop out text will appear. It will give information about the image.
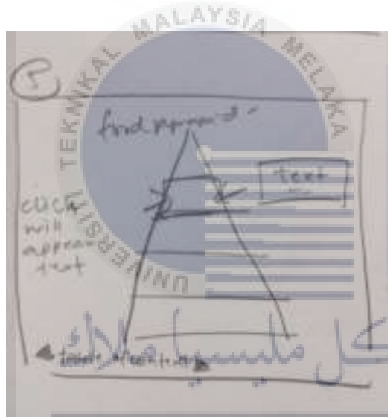
This design tell about when user touch every phase of the food pyramid the line colour will appear in every single of the phase. Besides that, when user click in each phase, information about the phase will come out.
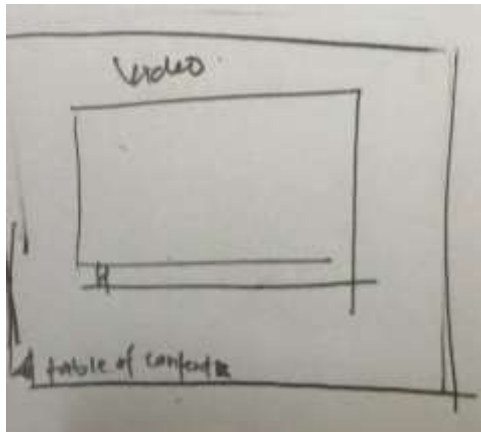
The interface in chapter exercises will consist of video.	
In activities interface it will consist of quiz and game.	
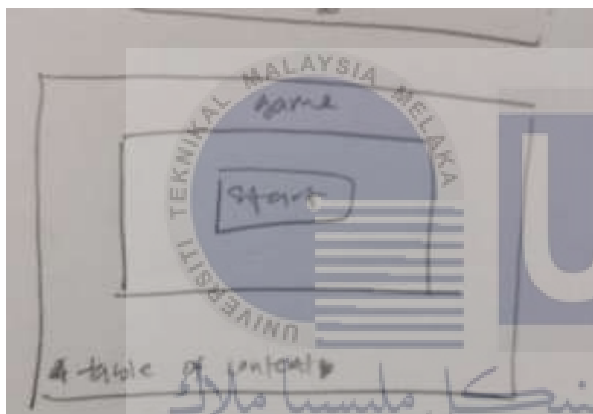
4.4.3 Color Design

The graphics like text and images was used in the interactive book are colorful. This is to make user more enjoyable and fun while read the information's. Besides that, some part of interactive elements like animations and video will attract the user to use the product. The color of the main text that has been use is black. This is to make user more easier while read the text because of the background that has been use is white color. Besides that, for important information the various color of the text has been used.

Figure 4.3 Example of text with various color

Figure 4.4 Design of each chapter in the interactive book

4.4.4 Topic Layout

The first page of every chapter will use with same design. This is to make consistency theme in the interactive book.

4.4.5 Video and Shooting

Video and image that has been provide in this interactive book was recoding and capture by Nikon DSLR**.**

4.5   Conclusion

It can be conclude that design phase is one of the guide when the development the product. This phases will help to reduce problem occur in implementation phase. Furthermore, this chapter allow developer to explore more innovative way to applying the content. In next chapter, the implementation phase will be explained. This phase will have more detailed information about the product and problems occurred during the development.

CHAPTER V

IMPLEMENTATION

5.1 Introduction

In this chapter, during this phase the process of developing of the product will be explained. The developer will implement all the multimedia elements for example text, animation, image, video and sound that have been decide before. Besides that, the developer will apply interactive elements into the product. Furthermore, the related media creation, media integration, product configuration management and implementation will be discuss in this phase.

5.2 Media Creation

There are a five type of multimedia elements that has been use in this interactive book. These multimedia elements was produce to make the interactive book more effective while use it. This is also to attract user use the product. Below is the type of multimedia elements that has been use while developing the product.

- Production of text
- Production of images
- Production of animation
- Production of video

5.2.1 Production of Text

During development of the interactive book, two types of font has been used which is **"My selfie epic demo"** for the page table of content and the second one is "chinacat" for the main font in every text. Besides that, several color of the font also has been used into the product. This to make reader more relaxed and not feel stress while read the information from the interactive book. Size of fonts that has been used is between 18-36pt.

Figure 5.1 Example of My selfie epic demo font

Figure 5.2 Example of chinacat font

5.2.2 Production of Images

The images or graphic mostly has been editing in adobe Photoshop and illustrator. This is because there are many images that need to be trace and be editing before publish into the interactive book. In this product Vector images has been used. All vector images was edit in adobe illustrator. The image will saved in jpeg and PNG format. Hence it will used 300 resolution to get better quality. Adobe illustrator used to trace image is downloaded from the internet. While Adobe Photoshop used to edit the pictures. Besides that most of the image in nutrition's content is the original image that has been taken by the developer.

Figure 5.3 Example of vector images tracing

5.2.3 Production of Animation

In this part adobe flash player was used to create an animation. This is to make the interactive book more fun and more interactive. The animation was used in calculation of calories that include in part of the content in the interactive book. This also to make user more understand about the information given. This animation will be used in the calculation of calories, computer used, game and quiz and work life balance content.
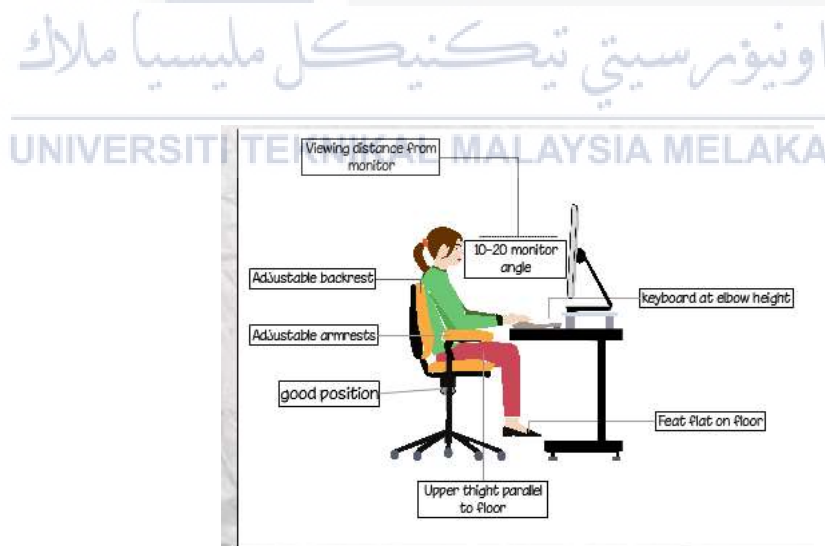
Figure 5.4 Example of Animations

5.2.4   Production of Video

In this production there are 3 video included in this product. The video introduced about simple exercise that user can do while in office or in home. The video recorded in Multimedia studio in FTMK (UTeM). The video recorded by camera Nikon DSLR. After done the recording, the video will be edit using software adobe Premier. The video has been recording in one day. The model in the video is from UTeM student. In this interactive book is consist of three part of video in duration between 1 and 2 minutes.

Figure 5.5 Example of video

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5.3   Media Integration

The media integration was used various type of software for example Production of animation used adobe flash player , production of images used adobe Photoshop and adobe illustrator and production of video was uses adobe primer as tools to edit the video. After all the process of the production of multimedia done all the materials are combine using Adobe InDesign. This is because Adobe InDesign is suitable to all adobe master collections. The output will display in PDF content. User can view the output in any platform of gadgets.

.

5.4   Product Configuration Management

PDF content is tools that used to display documents either in interactive way or not. All the interactive elements will be inserted in the PDF. This interactive PDF are suitable in any platform gadgets. So user can choose what type of platform they want to use.

5.5   Conclusion
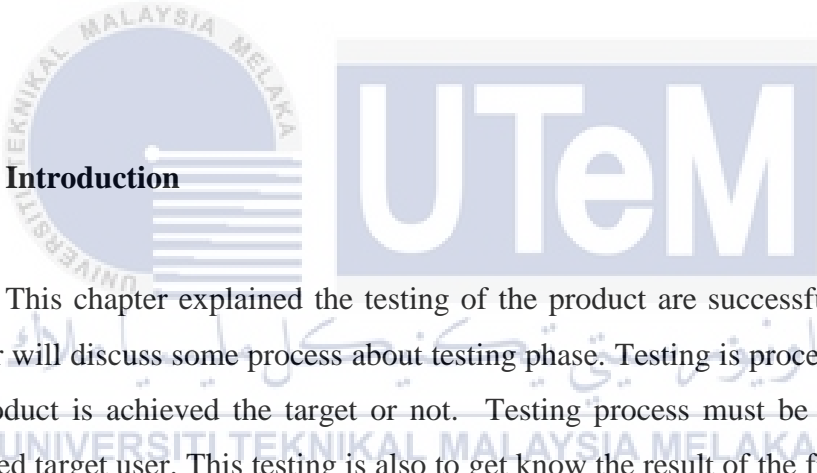
This chapter is a step while develop the interactive book. It also has explained all the details about essential of implementation part. During the developing the product. After complete all of this phase, developer will go through with final stage which is Testing phase

CHAPTER V1

TESTING AND EVALUATION

6.1   Introduction

This chapter explained the testing of the product are successful or not. This chapter will discuss some process about testing phase. Testing is process to get know the product is achieved the target or not. Testing process must be done with the purposed target user. This testing is also to get know the result of the final product of the testing that has been made.

Hence the final output will be describe in test result and test analysis in this chapter.

6.2   Test Plan

During this testing, the general public for example male and female will be targeted for this testing. This testing will be among Youngers like student and also worker among 30 and 40 years. The testing will be use heuristic principle to get the usability towards target audience.

6.2.1   Test Organization

The testing of this project consist of personal involved and expert content that are identified through the target user scope. The type of user for this product would be student or workers between 21 until 40 years old. The testing will be open with any type of gender and religion in Malaysia. Besides that, for the expert content interview session will be held to obtain respond and opinion to make a good interactive book.

6.2.2   Test Environment

The location and the environment of this testing should be comfortable. User can test the product in any place. It is important because sometimes it will affect the testing process either in a positive or negative manner. During the testing begin, user will use this product without any helpers from the developer of the product. Hence observation also will be done during this testing. After that, they need to answer the questionnaire provided. Furthermore the compatible hardware and software should be prepared during the testing begin.

Table 6.1: Hardware Requirement for Testing

Hardware	Specifications
Laptop	Laptop in offline pdf

6.2.3 Test Schedule

During this testing user were provided laptop from the developer. User also will be given a few time to play around with the interactive book.

Table 6.2: Schedule of Testing Activities

	Stage 1	Stage 2
User	General Public	Content Expert
Number of user	10	1
Duration	15 minutes	15 minutes
Date	August 2016	August 2016

6.3 Test Strategy

The test will be held in several places and testing to several student and worker with different age. The places of the test would be in comfortable places either in house, room or class, or office. The developer will give the product to user to test the interactive book. After that, user need to answer the questionnaire provided. The questionnaire are more related to usability of the interactive book that are required in

objective of the product. After the completion of the testing the form given to the audiences is collected and compiled for later evaluation.

6.4 Test Implementation

Testing Implementation will involve **Test Process** and **Test Result.** Test process will describe how the process will be held and the test result show the feedback from testing process.

6.4.1 Test Description

The questionnaire will include mainly use a levels method of answer that allowed a more flexible close-ended question answer. The level will be divided into 5 classes of level:

- Strongly Disagree
- Disagree
- Satisfactory
- Agree
- strongly agree

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FINAL YEAR PROJECT

"Interactive Book For Healthy Life Style"

SURVEY FORM

Please answer the following question by ticking [/] in the space provided.

1. Gender

   (i)   Male [   ]   (ii)   Female [   ]

2. Age category
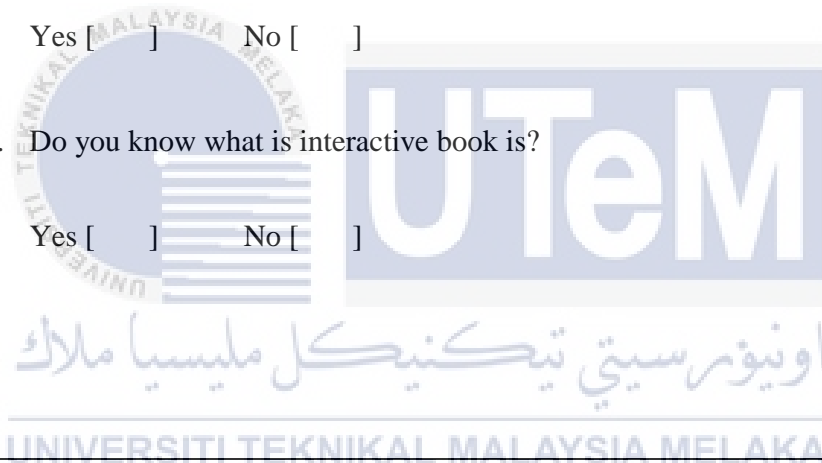
   (i)   21 – 25 years [   ]   (iii)   31-35 years [   ]
   (ii)   26 – 30 years [   ]   (iv)   36-40 years [   ]

3. Have you ever read a book in interactive book format?

   Yes [   ]   No [   ]

4. Do you know what is interactive book is?

   Yes [   ]   No [   ]

INSTRUCTION: Tick [/] on the options available.

.

[1] Strongly disagree [2] Less agree [3] Satisfactory [4] Agree [5] Strongly agree

No	Question	1	2	3	4	5
1	The interface and graphic display are understandable					
2	The fonts used are easy to read.					
3	Every page is not too messy.					
4	The interaction of this interactive book is easy to use.					
5	Do you think the interaction elements provided is easily to remember?					
6	Do you think this interactive book need a pop out message as a guideline?					
7	Do you think this interactive book take a long time to load a screen?					
8	The language are used is understandable.					
9	Do you think this interactive book need a help page?					
10	I finished studying the topic without difficulties.					

**Figure 6.1: The questionnaire**

6.4.2   Test Data

Due to the test plan, the users are require to fill in the questionnaire. The testing will be held in any comfortable place. The final product will be played on a Laptop. In this session, the user would test the all aspects usability of the product and answer the questionnaire provided.

During the testing one content expert will be interviewer and tester of the product. Besides that ten general public were involved during this testing. The testing questionnaire will refer to objective of the product.

6.5   Test Results and Analysis

Q1. The interface and graphic display are understandable.

	Strongly disagree	Less agree	Satisfactory	Agree	Strongly agree
■ Average	1	0	1	5	3
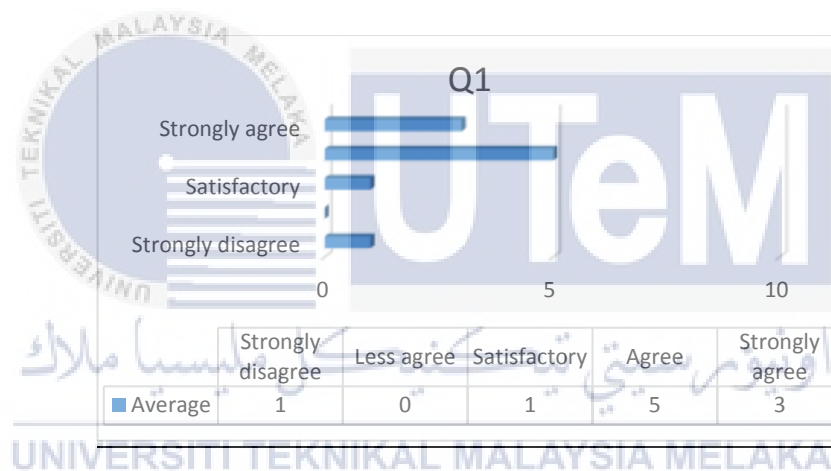
Figure 6.2 Questions No 1

From the bar graph it shows that five people agree followed by three people strongly agree and one general public choose satisfactory and strongly disagree. Regarding to the expert, she said colour of the text and design that has been use is appealing.

Q2. The fonts used are easy to read.
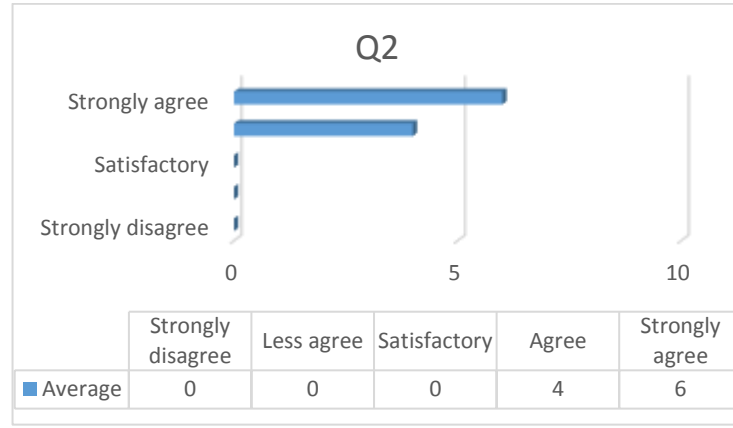
Figure 6.3 Questions No 2

From the bar graph it shows the highest numbers is six people choose strongly agree. Next four People choose agree for question two. Regarding to the expert, she said the fonts is easy to read and arranged.
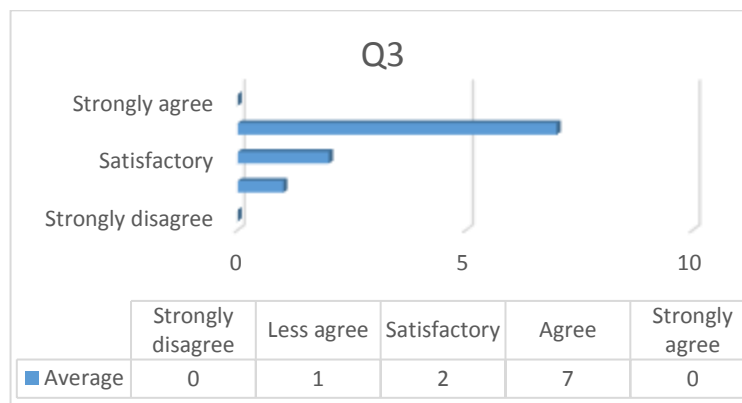
Q3. Every page is not too messy.

Figure 6.4 Questions No 3

From the bar graph it shows seven peoples choose agree followed by satisfactory two people and last one people choose less agree. No vote for strongly agree and strongly disagree. This result is supported to the expert that she said is too much text on the interactive book. While based on observation has proven that user will skip if the page have a lot of text

Q4. The interaction of this interactive book is easy to use.

Q4

	Strongly disagree	Less agree	Satisfactory	Agree	Strongly agree
■ Average	0	0	3	5	2
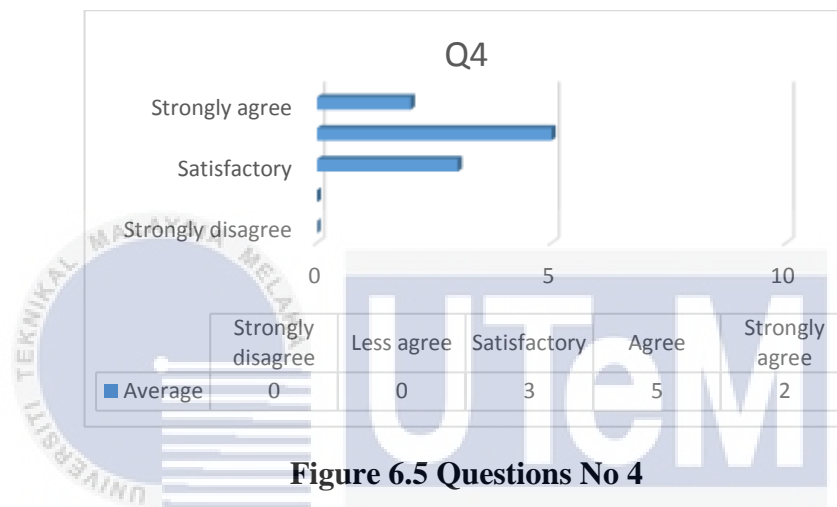
Figure 6.5 Questions No 4

From the bar graph it shows two people choose strongly agree and three satisfactory. Next five people choose agree for question four.

Q5. Do you think the interaction elements provided is easily to remember?

Q5

	Strongly disagree	Less agree	Satisfactor y	Agree	Strongly agree
■ Average	0	0	1	9	0
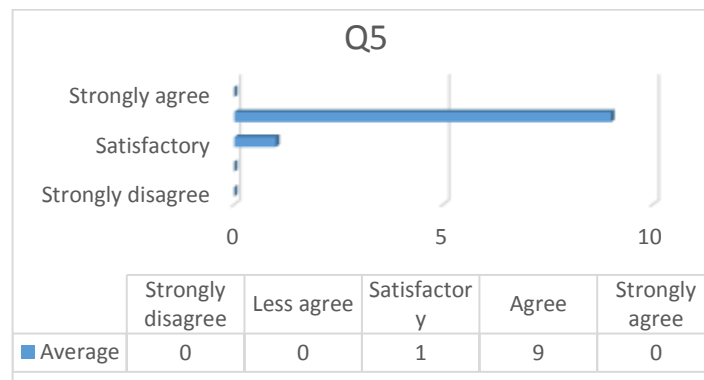
Figure 6.6 Questions No 5

From the bar graph it shows nine people choose agree for question five and one people choose satisfactory. This result is supported by expert. She said the interaction elements is simple and easy to remember. From the observation tester easily use the functional in the interactive book without difficulties

Q6. Do you think this interactive book need a pop out message as a guideline?

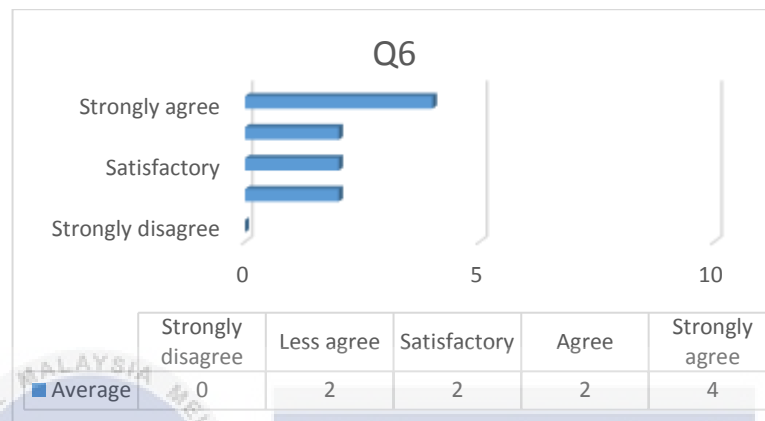|	Strongly disagree	Less agree	Satisfactory	Agree	Strongly agree
Average	0	2	2	2	4

Figure 6.7 Questions No 6

From the bar graph four people choose strongly agree followed by two people choose satisfactory, agree and less agree. No vote for strongly disagree. Regarding to expert she said this interactive book no need to put pop out message because it still understand while use it.

Q7. Do you think this interactive book take a long time to load a screen?

	Strongly disagree	Less agree	Satisfactory	Agree	Strongly agree
Average	0	3	1	6	0
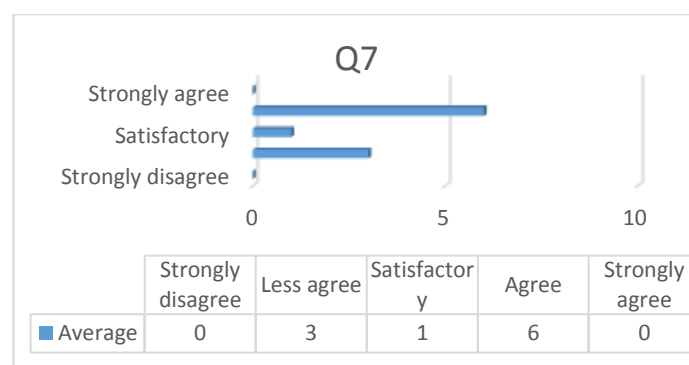
Figure 6.8 Questions No 7

From the bar graph it shows the highest number is six people chosen agree followed by less agree three people and the last is one people choose satisfactory

Q8. The language are used is understandable

Q8

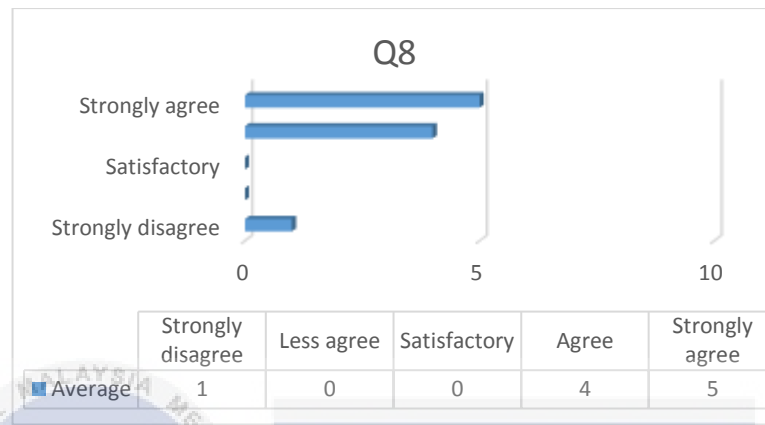|	Strongly disagree	Less agree	Satisfactory	Agree	Strongly agree
Average	1	0	0	4	5

Figure 6.9 Questions No 8

From the bar graph it shows five people rate strongly agree and four people rate agree. Hence one people choose strongly disagree for question eight. . This result is supported by the expert. She said the language is easy to understand and read.

Q9. Do you think this interactive book need a help page?

Q9

	Strongly disagree	Less agree	Satisfactory	Agree	Strongly agree
Average	1	0	1	4	4
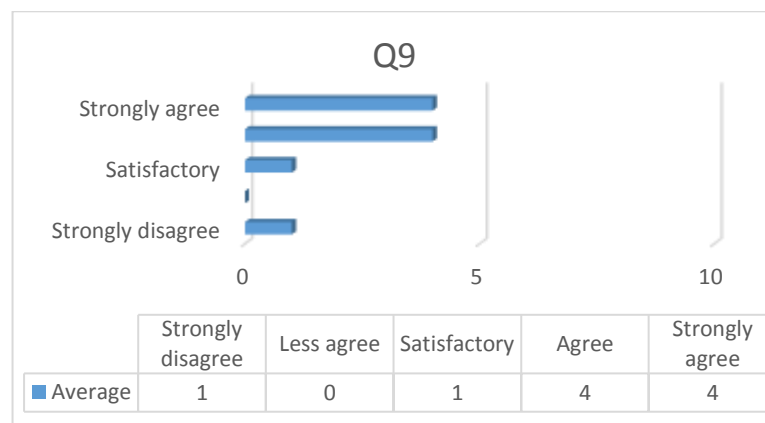
Figure 6.10 Questions No 9

From the bar graph it shows four people choose strongly agree and agree followed by one people choose satisfactory and strongly disagree. No vote for less agree for question nine. Regarding to the expert, she said help page or navigation it not necessary in this interactive book because observation has proven user not have any difficulties while use the product.

Q10. I finished studying the topic without difficulties.

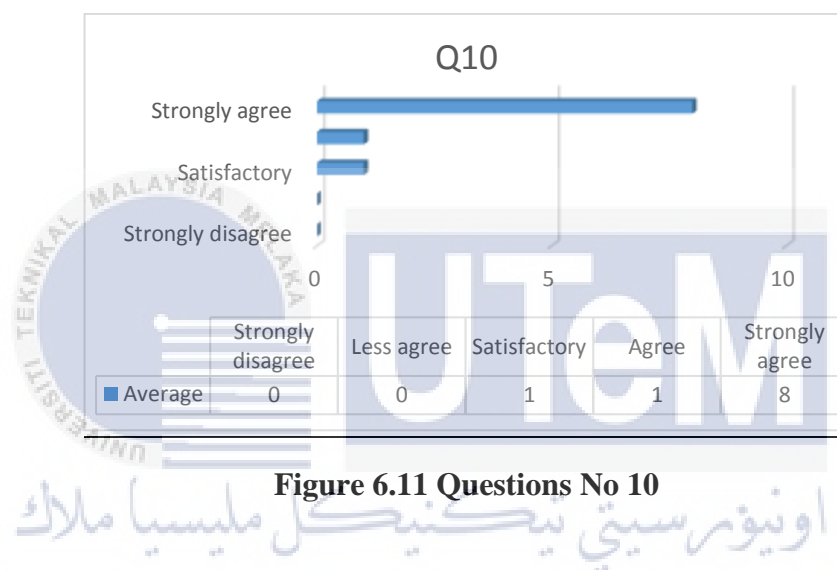|	Strongly disagree	Less agree	Satisfactory	Agree	Strongly agree
■ Average	0	0	1	1	8

Figure 6.11 Questions No 10

From the bar graph it shows eight people choose strongly agree followed by one people choose agree and satisfactory. This result is supported by the expert she study the topic without difficulties and based on observation to the tester they also can finish the interactive book without difficulties.

6.5.1 Discussion

In Overall, from Question one the highest rate is five people said agree and the least said strongly disagree and less agree. So that it can be conclude that this testing for Question 1 is succeed refers to heuristic principle visibility of system status. Next for Question 2 the highest rate is six people said and the least rate agree. This also achieved the testing which is refer to questions of readability. Hence, Question 3

the highest rate is seven people rate agree and the least rate strongly disagree. Refer to the heuristic which is Aesthetic and minimalist design. So that it can be conclude that the testing for this question also succeed.

Next, for Question 4 the highest rate is five people said agree and the least rate is two people rate strongly agree. This is refer to the user control and freedom heuristic. After that, for Question 5 the highest rate is nine people rate agree and one people rate satisfactory. Refer to the heuristic recognition rather than call the testing is succeed. Next for Question 6 the highest rate is four people said strongly agree and got same rate for less agree, satisfactory and agree. Hence Questions 7 shown the highest rate is six people choose agree that means this interactive books is take a long time to load screen. So that maybe should need some improvement based on this testing.

For Question 8 the highest rate is five people choose strongly agree and the least choose strongly disagree. So that, the language that has been used is understandable. Next for Question 9 there are same rate for strongly agree and agree which is four people are voted. This is also refer to the heuristic help and documentation. Moreover from the observations experts also said this questions is not necessary. Lastly for Question 10, the highest is nine people are rate strongly agree which is they successfully studies the topic without difficulties and the only one people said satisfactory. So that it can be conclude from this question the testing is succeed.

6.6   Conclusion

As conclusion the testing has been made is successfully and achieved through the objective number three which is to evaluate of aspect usability towards target audience. Regarding to the result the researcher will know the weakness and strength of the product.

CHAPTER VII

CONCLUSION

7.1 Introduction

It will conclude all the result that we get from the projects. All the feedback that we get from the target user and expert will be included in this chapter. Hence this conclusion will describe about the strengths and weakness the product that has been developed for the tester.

7.2 Observation on Weaknesses and Strengths

Interactive book for The Healthy Life Style is the project that has been developed for project PSM1 and PSM 2. Observation have done to get know the interactive book strength and weakness based on testing and analysis.

7.2.1 Strength

The strength of this product is based on testing and analysis that have been done, the researchers found that the strength is user can use the product without difficulties. This is because this product is easy to understand and read. The language that has been use is easy to understand. Besides that, the interactivity and the graphics that has been used are understandable.

7.2.2 Weakness

There are some flaws in this interactive book. The animations like games will lack while use in android mobile phone. Hence some interactivity also will not function in android version. In addition this interactive will not function in iOS version. Besides that, because it consist of too much text sometimes user skip the page and go to another page.

7.3 Proposition for Improvement

Improvement will be done after all the data has been collected and all the observation has been analysis. The improvement will help others people who want to develop interactive book in future so that they will not repeat the same mistake while making the interactive book.

There are some improvement that they can do for the future especially in the content. Maybe the developer can make the content more interactive and easy to understand such as make info graphic content. Hence, developer can make improvement of the interactive part in this interactive book such as create more quiz or part that can user interact with it. Besides that, developer can include more exercise or step to make user more easy to use this book with no time limit. Furthermore, the developer maybe can improve the interactive book for IOs and android like change to pub format so it can be access by all devices like tablet or smart phone.

7.4 Project Contribution

Interactive Book for The Healthy Life Style is built as a method to give information about healthy life style guided, especially for Malaysian Y-Gen like students and workers who do not have time to get a healthy body. The target user for this interactive book is Malaysian people for example students and workers with age between 21 and 40 years. This interactive book is able to attract people to learn and know more about healthy life style with easily access.

7.5 Conclusion

Interactive book for the healthy life style developed to get the objective of the project where are To investigate about healthy life style, to develop an interactive book about healthy life style and To evaluate aspects of usability of this interactive book towards target audience. This interactive book will help people to get healthy life style especially workers and students who don't have time to get healthy life. The graphics and animation can make the interactive book more interesting to be used and different from the other books about healthy.

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APPENDIX A

<u>**Questionnaire**</u>

UNIVERSITI TEKNIKAL MALAYSIA MELAKA
FINAL YEAR PROJECT
"Interactive Book For Healthy Life Style"

SURVEY FORM

SURVEY FORM

TITLE: "Interactive book for the healthy life style"

Please answer the following question by ticking [/] in the space provided.

5. Gender

    (ii)   Male [   ]   (ii) Female [   ]

6. Age category

    (iii)   21 – 25 years [   ]   (iii)   31-35 years [   ]
    (iv)   26 – 30 years [   ]   (iv)   36-40 years [   ]

7. Have you ever read a book in interactive book format?

    Yes [   ]   No [   ]

8. Do you know what is interactive book is?

    Yes [   ]   No [   ]

INSTRUCTION: Tick [/] on the options available.
.

[1] Strongly disagree [2] Less agree [3] Satisfactory [4] Agree [5] Strongly agree

No	Question	1	2	3	4	5
1	The interface and graphic display are understandable					
2	The fonts used are easy to read.					
3	Every page is not too messy.					
4	The interaction of this interactive book is easy to use.					
5	Do you think the interaction elements provided is easily to remember?					
6	Do you think this interactive book need a pop out message as a guideline?					
7	Do you think this interactive book take a long time to load a screen?					
8	The language are used is understandable.					
9	Do you think this interactive book need a help page?					
10	I finished studying the topic without difficulties.					

APPENDIX B

Project Schedule

ID	Task Name	Start	Finish	Duration	Feb 2016							
					22	23	24	25	26	27	28	29
1	Analysis	22/2/2016	25/2/2016	4d								
2	CHAPTER 1 (Project Background)	22/2/2016	25/2/2016	4d								
3	Requirement Specification	26/2/2016	3/3/2016	5d								
4	CHAPTER 2 (Literature Review)	26/2/2016	3/3/2016	5d								
5	Design	4/3/2016	24/3/2016	15d								
6	CHAPTER 3 (storyboard,character)	4/3/2016	24/3/2016	15d								
7	Implementation	29/2/2016	26/5/2016	64d								
8	CHAPTER 4	25/3/2016	26/5/2016	45d								
9	CHAPTER 5 (Functionality)	29/2/2016	15/4/2016	35d								
10	Evaluate	18/4/2016	19/4/2016	2d								

APPENDIX C

Log Book

APPENDIX D

<u>**Product**</u>