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JPJ driving test for illiterate candidate / Nur Hidayah Kamal
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JPJ DRIVING TEST FOR ILLITERATE CANDIDATE

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This report is submitted in partial fulfillment of the requirements for the Bachelor of
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**FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
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JUDUL: JPJ DRIVING TEST FOR ILLITERATE CANDIDATE

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I hereby declare that this project entitled
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STUDENT :  Date: 15/11/06
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DEDICATION

To my beloved Harry Jones.

Your strength, loves and memories are the most incredible inspiration in my life. May
you rest in peace.

Love, Nur

ACKNOWLEDGEMENT

First, I would like to thankful to our Almighty because give me strength to finish and fulfill the PSM project. Although there is a lot of anticipation and challenge during process to complete this project, but it can be solved with help and support from my supervisor, Mr. Zulisman Maksom, thank you for your helping hands, intelligence ideas and warmth hearts. Also a special thanks to my academic evaluator, Mr. Mohd Hafiz Zakaria. Thank you so much.

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Last but not least, I would like to dedicate a huge appreciation for my mother and father for all the supports, warmth, patience and unconditional love them giving me since forever. To everybody that had been helping me to complete my PSM project, thank you very much for all your support and cooperation, I will never forget them. God bless you.

ABSTRACT

This information CD will be developed as a prototype for the usage of the JPJ or Road Transportation Department in Malaysia. It will be developed based on the written question paper for the driving test which must be taken by every candidate in order to get their licenses. The target user for this project is the illiterate candidates. These types of candidate always face problems while they want to take this test. Several problems had been identified and they are, the lack of ability to read, the confusing words structure and also doubtful about transparent honesty in the JPJ examination officer. To curb these plights, this project will be developed in interactive way. Means it will contain a lot of authoring elements such as design style, animations, audio and visual. This kind of graphic test will be way easier for the illiterate people. In the other hand, it will help them to have a clear image and better understanding about the road rules. As this is the first time this kind of CD will be developed, hopefully it could be a prototype and will be used by JPJ in the future.

ABSTRAK

CD informasi ini dibangunkan bagi digunakan oleh JPJ ataupun lebih dikenali sebagai Jabatan Pengangkutan Jalan di Malaysia. Projek ini dibangunkan berasaskan kepada kertas ujian bertulis JPJ yang wajib di duduki oleh setiap calon bagi membolehkan mereka layak untuk mengambil lesen. Pengguna sasaran bagi rojek ini adalah golongan calon buta huruf yang ingin mendapatkan lesen. Mereka ini biasanya akan menghadapi masalah ketika mengambil ujian bertulis ini. Beberapa masalah telah dikenal pasti iaitu kurang daya upaya untuk membaca dikalangan calon sasaran, struktur ayat yang mengelirukan calon dan juga keraguan terhadap ketelusan pegawai JPJ yang bertugas. Jadi projek ini dibangunkan melalui cara yang interaktif bagi mengatasi masalah-masalah tersebut. Bermaksud ia mengandungi beberapa elemen *authoring* seperti gaya rekabentuk, animasi, audio dan visual. Ujian yang dibuat secara grafik seperti ini akan menjadi lebih mudah kepada mereka yang buta huruf. Selain itu, ujian sebegini akan membuatkan mereka mendapat gambaran dan idea yang jelas mengenai undang-undang jalan raya. Oleh disebabkan ini adalah pertama kali CD sebegini dibangunkan, diharap projek ini berupaya menjadi prototaip dan akan digunakan oleh JPJ pada masa akan datang.

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LIST OF ABBREVIATIONS

BITM	Bachelor of Computer Science Majoring in Multimedia Interactive
CD	Compact Disk
CD-ROM	Compact Disc read Only Memory
fla	flash
GB	Giga Byte
HCI	Human Computer Interaction
ICT	Information Communication and Technology
JPJ	Jabatan Pengangkutan Jalan
KEMAS	Community Development Division
MAEA	Malayan Adult Education Association
MB	Mega Byte
MORD	Ministry of Rural Development
MP3	MPEG Audio Layer 3
PC	Personal Computer
PSM I	Projek Sarjana Muda 1
PSM II	Projek Sarjana Muda 2
swf	Shock Wave Flash

CHAPTER I

INTRODUCTION

1.1 Project Background

The JPJ Driving Test for Illiterate candidates is an information CD that will provide a good informational elements based on the Road Transportation Department (JPJ) written test. The illiterate candidates had been chosen to be the target user for this courseware CD because the existence of this type of people in this modern globalization world always been forgotten. Generally the illiterate people always face a lot of plight in this world because their disability to read and this people always had been isolated and left behind from the world rapid technology achievements and changes. As for the illiterate candidates they also are going to face the same problem when they have to sit for the JPJ written test just to get their licenses.

Obviously it is hard and almost impossible to an illiterate people to do well in the written test, even the JPJ already provided their officer to help the candidates by reading all the questions and answers but the consideration must be made, because not all the candidates could understand what actually the point that had been delivered to them just by listening. Moreover the answers always come in confusing structure. In the other hand, this courseware will help the candidates to have better understanding of the question requirements by having good visualization answers.

This CD will contain fifty questions which will be taken from the JPJ written paper. It will also including the answers for each question. All the texts will be supported with the authoring elements such as interactive audio, graphic and animation because this test will be specially developed for the usage of the illiterate candidates. So it will be irrelevant if only text being used, which is why the consideration about this must be made in order to avoid the same problem like the test that had been provided by JPJ nowadays.

1.2 Problem Statements

Nowadays the JPJ written test had only been provided using text and still picture. The text usually will describe what the questions want and the selection of the answers. While the still picture is used just to help to improve the question structure usually as an example or to represent the road signs or symbol only. The problems will occur in this circumstance if the candidate is illiterate. The candidate will not understand the question no matter how simple it is because the capability of reading and this will guide to disability to choose the right answer and as a result the candidate will automatically fail from this test.

Even the road transportation department tries to help and curb this plight by providing their officer to help the illiterate candidate in this test by reading the questions and answers for them but it is still not effective. It is impossible to all the candidates to understand all the questions and answer that had been read to them just by one time. Consideration must been made because some of the candidates are coming from the golden ages category and all of them are the capable people. As a human being they need more time to understand the question and make decision for the appropriate answers. It is going to be more efficient if they could do this by themselves. So this

courseware CD for the illiterate candidates is the best solution to curb this problem and also to help the candidates pass the test excellently.

1.3 Objective

This courseware CD also has several objectives. They are:

- To improve the JPJ testing methods by making a courseware which is easier to understand and more interesting.
- To develop an effective prototype testing method for illiterate candidate.
- To help the illiterate candidates to understand the question and answer in the JPJ written test by adding the interactive multimedia elements besides the text.

1.4 Scopes

This project is about developing a courseware CD for the illiterate candidates who are going to take a written driving test from JPJ or Road Transportation Department in Malaysia. This courseware will be developed using only Bahasa Malaysia and will be based on a sample of the written test that provided by JPJ. Windows had been chosen to become the main OS platform in developing this courseware because of it widely been used in Malaysia compare to other platform.

1.5 Project Significance

Project will focus only on the illiterate candidate who will be going to sit for the JPJ written test in order to get their driving licenses. Based on all the problems that had

been state before, this courseware CD will be developed using interactive media elements. All the texts will be supported with audio, graphics and animation which will work interactively with users. And this project will be the first courseware CD that had been made for the illiterate people who going to take the written driving test in Malaysia.

1.6 Conclusion

This chapter basically gives the introduction about the project that will be developed. The introduction about the project background and the problem statement had been state directly in this chapter. The target users for this project are the illiterate candidates that want to take the JPJ written test to get their driving licenses. The department that will be used this courseware CD is the Road Transportation Department in Malaysia. In order to be relevant and convenience for the usage of Malaysia illiterate candidate, Windows had been decided to be used as a platform in developing this courseware CD. While the next chapter will be discussing about the project literature review and methodology that will be used in order to develop this courseware project.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

Literature review is a part of research. In this chapter the literature review will discuss about the fact about the illiterate among the Malaysian, graphic design rules and animation. This review will be discussed based on the other people article and research.

In order to develop this project the Courseware Development Methodology had been decided to be used. This methodology has seven important steps that must be followed and they are Definition, Evaluation and Packaging. While the evaluation part will working parallel with the Analysis, Design, Development and Integration, and also Testing. This software had been chosen because it covered all the steps that should be have in order to make a good multimedia courseware CD.

2.2 Fact and Finding

Literacy rates are determined through census and survey data. If that information is lacking, estimates are based on neighboring countries with similar characteristics, including life expectancy at birth, enrollment ratio in secondary education, and fertility

rate. Adult literacy rate is defined as the population of women or men aged 15 years and over who cannot both read and write with understanding a short, simple statement on their everyday life. This indicator can be used to measure gender parity in education, the achievement of literacy programs and the effectiveness of primary education. Youth literacy rate is defined as the percentage of the population aged 15 to 24 years old who can both read and write with understanding a short, simple statement on their everyday life. Youth illiteracy rates are increasingly used to gauge the impact of primary education as well as the speed with which illiteracy can be eradicated

Based on the National Literacy Policies in Malaysia updated on March 2003, the history about the finding of the differences in number of the illiterate people in Malaysia was began on year 1961, when the Community Development Division (KEMAS) of the Ministry of Rural Development (MORD) was entrusted to eradicate illiteracy among adults in Peninsular Malaysia. In 1963, this function was extended to Sabah and Sarawak.

In addition to the West Africa Review issues 5 on 2004, a research about an Economic Development of Two Countries: Ghana and Malaysia by Benjamin Asare and Alan Wong state that Malaysia has an average adult illiteracy rate of 13 percent while Ghana, with about 30 percent adult illiteracy rate, has more than twice Malaysia's. This circumstance happened because the improvement in Malaysia government administration system that had made Malaysia as a fast developing country compare to the Ghana.

Furthermore, according to this research, even Ghana and Malaysia had much in common four decades ago. They are both former colonies of the British Empire and they attained independence from Britain in the same year, 1957. Both independent countries began with a rich mix of resources, significant gold and foreign-currency reserves, strong British legal and political institutions, and similar educational systems.

Realizing education is a wealth-distribution vehicle because it should enable the poor to seize the opportunities provided by economic growth. Education also leads to a variety of indirect benefits, such as better attitudes toward work, greater ability to learn new skills, and fertility reduction. Right after independence, Malaysia made a concerted effort to provide primary education to as many children as possible. As a result, the functional literacy rate has been relatively high. In 1998, the percentages of adults (15 years and older) who were functionally illiterate were 9 percent for males and 18 percent for females.

Malaysia government takes a serious action to curb the illiteracy among Malaysian people since 1957, the year of Malaysia independent from British colonial. This is the fact based on research in title 'Next country profile is on Malaysia' by Rahim M. Sail. He traces the mode of adult education in Malaysia way back in 1900 when classes on 'Martial Arts' (or *Silat*) were conducted to prepare youth in the art of self-defense. Traditional rural religious schools were opened in 1930. In 1948 the Malayan Adult Education Association (MAEA) was established. The author point out that at the time of independence in 1957, nearly half of the total adult population of Malaysia was illiterate, and thus a special Task Force was set up in 1959. The year 1966 was very important as Malaysia celebrated World Literacy Day. In the year 1968, a "15 Years Literacy Programmed" was launched by the government.

According to all the facts given, it has been almost 49 years Malaysia try to fight the illiteracy among her people, by taking all the risks and developing the entire good infrastructure. In order to ensure that literates do not relapse into illiteracy, the MORD provides, on a loan basis, reading and learning materials such as books, audio tapes, posters and educational games for the rural communities.

Moreover besides MORD, there are several specific government agencies that had been involved in curbing the illiteracy among Malaysian and they are, Ministry of Education, Ministry of Rural Development, Ministry of Human Resources, Ministry of Youth and Sports, and Ministry of Entrepreneurship.

Meanwhile, the graphic design also plays important part in this project because the graphic design emphasis delves into those complex questions that absorb both the novice and the expert in the expanding arena of visual communication. The emergence of new multifaceted word and image forms opens the way for informed expression solidly built on curiosity, honest work and the need to reason and create. Moreover this graphic will help these illiterate candidates a lot. There are several part of graphic design that need to be concern in this project, they are typography, color and design appearance.

- **Typography**

According to the Graphic Design Rules, the designer need to identify the font that will be used in the project and provided strong reason why that type of fonts had been chosen compare to the other fonts. The reason of this case is to avoid the messages get lost in jumble and fancy fonts. In developing a good graphic and animation like this driving test for the illiterate candidates, the usage of the font is not so typical because they cannot read, but in order to make a handsome layout in the design, font still plays important part. That is why the Arial font had been chosen to be used in this project. Moreover according to the theory goes that serif type is easier to read because the serifs draw your eye from character to character. Therefore, sans serif type is best left to headings and short amounts of text.

- **Color**

As this project is for the illiterate people the consideration about the color need to be made. According to James Hackworth, in his article about the color psychology, careful consideration must be used to determine the correct use of color because each color brings the specific meaning. For example, the blue color brings the meaning of sky, sea, water, religious feeling, melancholy, loyalty and tranquility. While red color brings the meaning of fire, love, passion, power, danger, heat and warning. The color actually speaks the unspoken feeling and it also could give inner effect to the viewer.

- **Design Appearance**

The main part in graphic design which needs to be considered is the interface design. Some criteria must be concentrated on and they are contrast, consistency and balance in doing the design. According to 'The Principles of Design' at the DTP/HTML Tutorials, the definition of contrast is creates interest in the printed product by providing variety in the design. While Roger C. Parker explains contrast as a good design provides visual stimulation which prevents reader boredom.

In making a good design contrast is one of the easiest design principles to create. Contrast could be created by using size, color, typography, emphasis, value, texture and shape. Essentially contrast could be seen just by simply placing different two different object next to one another. Contrast usually bring interesting look to the design if it had been made appropriately.

In the other hand, balance also plays the important role to make a good graphic design. Explanation of balance from A Designer's Guide to Web Design says that once the page is balanced, there will be no longer notice the elements as being individual. The whole page will become one piece and the viewers eyes will flow from one element to the next seamlessly. A good balance in the projects will make the project seems variety enough and interesting to the viewer.

According to Sakhar (2001) about Graphic Design on the Design Basic Balance, there are three types of balance that need to be considered in designing, they are symmetrical, asymmetrical and radial. The symmetrical balance tends to have a formal, traditional look to them. Example, if the designer draws a line down the center of the design, they will find the exact same elements on either side of that line. While the asymmetric balance happened or could be used when comparison between two sides of a design, the objects are different on each side. And lastly the radial balance happened when the object had been radiated out from a central point in the design.