

BORANG PENGESAHAN STATUS TESIS*

JUDUL: ROAD SIGNBOARD GAME

SESI PENGAJIAN: 2007/2008

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ROAD SIGNBOARD GAME

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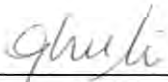
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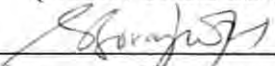
**FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
2007**

DECLARATION

I hereby declare that this project report entitled
ROAD SIGNBOARD GAME

is written by me and is my own effort and that no part has been plagiarized
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STUDENT :  Date: 12/11/07
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DEDICATION

To my beloved parents

Your mental and physical support full with boundless love have enriches and replenishes my soul during the long hours of struggling for my final year project.

To my supervisor

Your guidance brings incredible inspiration to me.

ACKNOWLEDGEMENT

First of all, I would like to take this opportunity to acknowledge the contribution of the Universiti Teknikal Malaysia Melaka (UTeM) provides a final year project (PSM I and PSM II) for me to develop my skills. I also would like to express my deepest gratitude to Pn. Norazlin bt Mohammed for being my supervisor and their constant guidance and assessing performance for this final year project. Thanks for her kindly advices and opinions toward the project. Special thanks to En Muhammad Haziq Lim Bin Abdullah for evaluating my presentation. Thanks to all the UTeM staffs that assist me throughout the final year project directly or indirectly. Not forgetting, a deepest thanks to my family, dearest friends and course mates to give me support and advices during this period.

ABSTRACT

Road Signboard Game is 2D animation game which is built to deliver the meaning of the road signboard and provide road safety information to the children from 10 to 12 years old. Currently, most of the children learnt the meaning of road signboard from the school, parents or some books. Through this computer game, children have a new interactive way which is play and learn at the same time. The software and hardware requirement is define before start to develop the project. The problem of the existing system is explained and the storyline of the project is created. There are two levels of the game, which are level one and level two. The content of each level of the game is defined. The storyboard of the project is created according to the storyline. It act as a blue print of develop the project. Moreover, in the create storyboard phase, user interface, navigation, input and output, database is designed. In the navigation design, the overall of the project is represented by using the flow chart.

ABSTRAK

Road Signboard Game adalah animasi 2D permainan komputer di mana ia dibangunkan untuk menyampaikan maksud papan tanda jalan dan membekalkan maklumat tentang keselamatan semasa di jalan raya kepada kanak-kanak yang berumur dari 10 hingga 12 tahun. Pada masa kini, kebanyakan kanak-kanak belajar maksud papan tanda jalan dari sekolah, ibu bapa atau buku rujukan. Melalui permainan komputer ini, kanak-kanak mempunyai satu cara yang baru iaitu belajar sambil bermain. Perisian dan perkakasan yang diperlukan adalah dipastikan sebelum mula membangunkan projek. Masalah bagi beberapa sistem yang wujud dijelaskan dan jalan cerita projek ini direka. Permainan komputer terdiri daripada dua tahap, iaitu tahap pertama dan tahap kedua. Papan cerita adalah dibuat mengikut jalan cerita. Ia adalah satu pelan pembangunan projek. Tambahan pula, dalam fasa mewujudkan papan cerita, antara muka pengguna, navigasi, input dan output dan pangkalan data direka. Dalam reka bentuk navigasi, keseluruhan projek ini diwakili dengan menggunakan carta alir.

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LIST OF ABBREVIATIONS

ASP	-	Active Server Page
CRPG	-	Computer Role Playing
PHP	-	Hypertext Preprocessor
Sim	-	Simulation

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CHAPTER I

INTRODUCTION

1.1 Project Background

Nowadays, there are a lot of the computer games based on learning which can access easily from internet or buy from the computer shop. Game based learning can motivate children to learn better. It is because game contains fantasy element which engages children in learning activity. Therefore, games become children's favorite activities to make good use of their leisure time.

The project will be developed is 'Road Signboard Game'. It is a flash game application for children from 10 -12 years old or primary student. There are many online computer games about the road safety and road signboard from internet. For example, 'Nursery Road Safety Game – Lucy Goes to School', 'The Safer Routes to School Game', 'Renault Safety Matters', 'Hedgehogs Road Safety' and so on. Therefore, this computer game is use to educate the children or primary student about the meaning or function of each road signboard when playing this game.

The Road Signboard Game contains two different levels which are level one and level two. Level one is different from the level two. Player have to pass the level one before proceed to the level two. In the level two, player will be given a destination. Player has to reach to the destination by follow the road safety rules. From this game, player will know some road signboards' meaning and indirectly, player can learn about the road safety. The score will be counted for each level.

This project can provide children or primary student to learn the road signboard in an effective way if compare with the teaching method in the primary school. This flash game will be using the sound and animated image to attract the attention of the children.

1.2 Problem Statement

Currently, children are lack of the knowledge about the road signboard. It is a dangerous situation for them where their learning place will full of the vehicle while waiting their parents after school. This is important to let the children learn the road signboard and some road safety information.

There are many computer games from internet. For example, Renault Safety Matters, it mostly uses the quiz method to educate the children about the road signboard and road safety such as cross-word. This method is not attractive. Children will feel bored to play this game.

Beside that, some of the student may feel boring to learn the road signboard. The book is full of static image and text will make the children no interested on road signboard. The animated image and sound will improve the interest of the student to study the road signboard.

In addition, there is lack of interactivity with the children when learning the road signboard through the book. Through this flash game, the children can interact with the program.

1.3 Objective

Below are the objectives of this project:

- **To develop a road signboard game for children.**
The meaning of road signboard can delivered to the children effectively through this game.
- **To deliver the meaning of road signboard and some information about the road safety.**
The knowledge of the road signboard is important to deliver to the children. By playing this game, the meaning of road signboard will be given when accomplish the task. Indirectly, the information about the road safety also can be delivered to children.
- **To provide an interactive way for children to deliver the meaning of road signboard.**
The different level of this game will become a challenge to the children to play this game. The interactivity between the player and flash game can attract the children to pay attention on the game.

1.4 Scope

This flash game is developed for children from 10 -12 years old or primary school student. This is an edutainment game which children can learn the road signboard through playing the game.

This flash game is divided into two levels which are level one and level two. The scene of each level is different and each scene has different road signboard.

There are certain basic road signboards where children can see them in the road everyday will be teaching. For example, traffic must turn left only, forbid to turn left, no entry for vehicle and so on.

The score of each level will be counted. Player has to play this game level by level which is start from level one to level two. In the level one, player's score have to achieve a target before proceed to level two. This flash game is standalone game which it can only have one player. It will use the Windows platform to run this game.

1.5 Project Significance

This Road Signboard flash game may bring some benefits to the children, parents and teacher in primary school. For the children, they can understand the meaning of road signboard. Beside that, they also can receive the information about the road safety easily. This game can become as a good activity for them to make good use of their leisure time.

Most of the parents are busy with their work. The explanations about the road signboard and road safety maybe are just teaching by orally method. Therefore, parent can use this game as their informal education in home.

For the teacher in primary school, they maybe can use this game as a part of their teaching lesson during the computer lesson in the primary school. After teacher teaching by using the book, teacher can use this game to make the children more understand about the road signboard and road safety. The effectiveness of teaching method can be improved.

1.6 Expected Output

The expected output is to develop a road signboard game to the children to make good use of their leisure time. This game will start with a montage. An instruction is given to the player from the beginning of the level. The meaning of road signboard will be showed to the player. Indirectly, information about the road safety can be delivered to the player. This game will be delivered in .swf file format. It required flash player to run this game.

1.7 Conclusion

To conclude, this chapter explain briefly about the game that will be develop. It consists of introduction, problem statement, objective, scope, project significance, and expected output. In the problem statement, it explained the reason why children lack of the knowledge about the road signboard and road safety. It is important for children to learn the road signboard and road safety when children are always exposed to the road environment. In the scope, the target user and limitation of this project will be explained. The target user is the children from 10-12 years old or primary school student. Beside that, this chapter also explained then benefits of this flash game. Finally, the next chapter will be explained about literature review, project methodology and project requirements. In the literature review, it describes the domain, existing system and technique based on the research topic of the project. The project schedule will be explained by using the Gantt chart.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

This chapter is explained about the literature review and project methodology that will be applied to this project. The literature review is concentrate on the research that related to the topic of the project that will be developed. It is important because the theory of the research will be applied into the project. It can be done by determined the related topic, searching and collecting the information, and analyzing the relevant information. The topic of research for this project will be based on the game based learning for the children and other related topics. The project methodology is an approach used to develop a project to meet its objectives. There are different types of project methodology. The chosen of project methodology is based on the kind of the project that will be developed. The project methodology that will be chosen for this project is multimedia development methodology. Briefing of this methodology will be explained in this chapter.

2.2 Facts and findings

Fact and findings is based on the topic of the literature review that had been determined. Therefore, there are some related topic of research had been done as below.

2.2.1 Domain

The domain related to this project is animation game. Basically, 2D animation game is widely used around the world to increase kid's intrinsic motivation by narratives activities. Kid can be inspired towards game by integrated with the storytelling environments such as story character and events, various story elements and story grammar concepts.

By refer to Franca Garzotto and Matteo Forfori, there are some types of game as below:

- **Ability games**
Promote psychomotor skills. (e.g, moving an avatar across a sequence of flying circles)

- **Problem-solving games**
Stimulate creative problem-solving capability. (e.g., treasure hunt in the 3D space, or puzzles in the 2D space)

- **Content-oriented games**
Foster story-structure comprehension, critical thinking, symbolic imagination, recognition and recall, and provide a field for their exercise, thus preparing the way for the development of abstract thinking and higher mental processes. (e.g., quizzes about story grammar concepts)

- **Linguistic games**
Inspired by the “theory of fantasy grammar” of the Italian writer G. Rodari, stimulate linguistic skills and promote creative writing.

2.2.2 Existing System

Currently, there are many online games in the internet. Therefore, online game about the road safety and road signboard can access from the internet. Below describe the existing system in details which are Nursery Road Safety Game – Lucy Goes To School, 3M Streetwise, and Hedgehogs Road Safety.

2.2.2.1 Nursery Road Safety Game – Lucy Goes to School

This Nursery Road Safety Game – Lucy Goes to School is a free online game. Latest version of the Macromedia Flash plug-in (version 6) is required to run this game. The target user of this game is to children from 3 to 7 years old.

This game is about the character Lucy and her dad wants to walk to school. Player is required to help them go to school safely by building a safe route. There are four levels, each level represents a part of safety route and each level is represent by different cartoon character. When complete a level, a new part of the route will be built. The whole route is built after complete four levels. Then, Lucy and her Dad can walk safely from their home to school. Figure 2.1 shows the first interface of Lucy Goes To School Game.

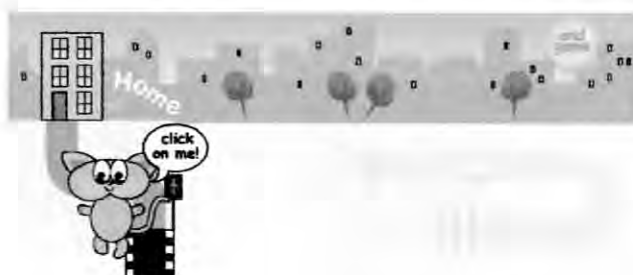


Figure 2.1: First Interface of Lucy Goes To School Game