UNIVERSITI TEKNOLOGI MARA

GAMIFICATION OF DRIVER'S LICENSE "FUN TRAFFIC SIGNS"

MUHAMMAD SHAHKIR BIN SHAHARUDDIN

Thesis submitted in fulfilment of the requirement for Bachelor of Information Technology (Hons.) Faculty of Computer and Mathematical Sciences

AUGUST 2015

ACKNOWLEDGEMENT

Alhamdulillah, praise and thank to Allah because of His Almighty and His utmost blessings, I was able to finish this research within the time duration given. Firstly, my special thanks go to my supervisor, Puan Nor Diana binti Ahmad for the valuable guidance and advice. She inspired me greatly to complete this thesis. I also want to thanks my lecturer who has taught CSP650 for help and guidance, Prof. Mardziah Hj. Hashim.

Special appreciation also goes to my beloved parents Shaharuddin Bin Tahir and Siti Zauwiah Binti Haron for their support during my hard times especially while I am completing this project and always pray for my success.

Last but not least, I would like to give my gratitude to my dearest friends for their help and encouragement for me in order to complete this thesis.

ABSTRACT

Today, Driver's License is important to maintain the driver's discipline and safety. Driver's License is needed for all people who want to drive a car on the road. Currently, the learner has difficulties in learning Driver's License. This is because they need to attend theory class for 5 hours and it is bored with them. Besides that, Learner has difficulties to revise back what they have learned because they need to learn hundred pages in Road Transport Department Malaysia book. To handle this situation, the current system needs to change to Technology. This research proposes is to develop a mobile application that can make the user learn Driver's License. The concept that being applied to the mobile application development is gamification. "Fun Traffic Signs" focus on two signs which is prohibition and dangerous traffic signs. It only has one language which is in Malay language. User can use this application without time and space limitation. "Fun Traffic Signs" had been developed using the Mobile Application Development Life Cycle methodology framework because it focuses on deployment in smart phones. To fulfill the requirement about this project, the questionnaire are distributed to the 50 respondents at age 17 to 40 in the section 7 area. The purpose of the questionnaire is to identify the requirement needed to design "Fun Traffic Signs". On future works this project can focus to five types Traffic Signs which is dangerous, prohibition, mandatory, notifies and temporary Traffic Signs and can focus to develop more challenge games for the learner to improve their critical thinking.

TABLE OF CONTENTS

CO	NTEN	ITS	PAGE	
SUI	PERVIS	OR'S APPROVAL	ĭi	
STU	JDENT'	iii		
ACKNOWLEDGEMENT				
ABS	STRAC	Т	v	
ΓAΙ	BLE OF	CONTENTS	vi	
LIS	r of fi	IGURE	ix	
LIS	r of T	ABLES	xi	
C H A	APTER	ONE: INTRODUCTION		
* .	1.1	Research Background	1	
	1.2	Problem Statement	4	
	1.3	Research Question	5	
	1.4	Research Objective	5	
	1.5	Research Scope	5	
	1.6	Research Significance	6	
	1.7	Research Element	6	
	1.8	Expected Outcome	7	

CHAPTER TWO: LITERATURE REVIEW

2.0	Introduction				
2.1	Drive	r's License	8		
2.2	Traffi	c Signs	9		
	2.1.1	Types of Traffic Signs	12		
2.3	Gamification				
	2.3.1	Related Gamification System/Application	21		
ę		2.3.1.1 2048	21		
		2.3.1.2 Fun English Learning	22		
		2.3.1.3 Samsung Nation	22		
		2.3.1.4 Treehouse	23		
		2.3.1.5 Ribbon Hero2	24		
	2.3.2	Related Traffic Signs System/Application			
		2.3.2.1 Road and Traffic Signs Test	25		
		2.3.2.2 Traffic Sign.	25		
		2.3.2.3 Traffic Signs for Learners	26		
		2.3.2.4 Traffic Signs	27		
	2.3.3	Gamification and Education	29		
	2.3.4 Gamification criteria30				
	2.3.5	Gamification technique	33		
		2.3.4.1 Multimedia	33		
		2.3.4.1 2D	33		
		2.3.4.1 3D	33		
2.4	Defin	ition and Five Elements of Multimedia	34		