Universiti Teknologi Mara

Mobile Application For Children With Visual Processing Disorder

Muhd Amir Rashidi Bin Hamzah

Thesis submitted in fulfillment of the requirements for Bachelor of Information Technology (Hons) Information Systems Engineering Faculty of Computer and Mathematical Sciences

SUPERVISOR'S APPROVAL

MOBILE APPLICATION FOR CHILDREN WITH VISUAL PROCESSING DISORDER

By

MUHD AMIR RASHIDI BIN HAMZAH 2013279994

This report was prepared under the supervision of project supervisor, Dr. Elin Eliana Abdul Rahim. It was submitted to Faculty of Computer and Mathematical Sciences and was accepted in partial fulfilment of the requirements for the degree of Bachelor of Information Technology (Hons) Information System Engineering.

Approve by
Dr. Elin Eliana Abdul Rahim
Project Supervisor
JULY 30, 2015

STUDENT'S DECLARATION

I certify that this report and the research to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

.....

Mohd Amir Rashidi bin Hamzah 2013279994

JUNE 23, 2015

ABSTRACT

This paper present about the use of smartphone and its technology in order to aid the children with learning disabilities in their learning process. Each type of smartphone has different operating system that power them. Online service provide are also differ from one to another, as the number of user increase, the number of application available in online store are also keep increase. One interesting benefit that mobile app give to user is it can be used for educational tool, this is not just for normal people but people with disabilities can also use it, in this research the focus will be on children with visual processing disorder. Visual processing disorder are usually mistaken with other specific learning disabilities which is dyslexia and dyspraxia whereas it was a learning disabilities that stand firm on its own. This disabilities are usually hard to find in children because most of parents and teacher does not know what their children and student problem were until they have taken the child to specialist, furthermore there are no proper guidelines for them to teach the kids normally. In addition visual processing disorder can be further divided to 8 category which is visual discrimination issues, visual figure discrimination issues, visual sequencing issue, visual motor processing issues, long or short term memory issues, visual spatial issues, visual closure issues and letter and symbol reversal issues. A mobile app for the said children will be develop in this project using mobile application development life cycle and will only focus on 3 area that is visual discrimination issues, visual sequencing issues as well as visual motor processing issues.

.

TABLE OF CONTENT

CONTENTS	NTENTS PAGE		
ABSTRACT TABLE OF CONTENT		ii iii	
LIST OF TABLE			
CHAPTER	ONE: INTRODUCTION		
1.1	Background of Study	1	
1.2	Problem Statement	3	
1.3	Project Aim	4	
1.4	Objectives	4	
1.5	Project Scope	5	
1.6	Research Significance	5	
CHAPTER	TWO: LITERATURE REVIEW		
2.1	Visual Processing Disorder	6	
2.2	Courseware	7	
	2.2.1 Desktop Based Courseware	8	
	2.2.2 web based Courseware	8	
2.3	Mobile	9	
	2.3.1 Mobile Technology	10	
	2.3.2 Mobile Application	12	
	2.3.3 Mobile Application for Children with special need	14	
2.4	Multimedia Elements in Courseware	16	
2.5	Mobile Application Development Lifecycle	19	
2.6	Evaluation on User Interface	20	
2.6.1	Weinscheck and Barker Classification	21	
2.6.2	Model Based Evaluation	23	