UNIVERSITI TEKNOLOGI MARA

INTERACTIVE E-LEARNING OF HAJJ USING GRACEFUL INTERACTION CONCEPT FOR ELDERLY

SITI FAZREEN BINTI ABDUL RASHID

•:

Report submitted in partial fulfillment of the requirements for the degree of

Master of Science (Information Technology)

Faculty of Computer and Mathematical Sciences

January 2014

STUDENT'S DECLARATION

I declare that the work in this report was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as reference work. This report has not been submitted to any other academic institution on non-academic institution for any other degree of qualification.

In the event that my report be found to violate the conditions mentioned above, I voluntarily waive the right of conferment of my degree and degree to be subjected to the disciplinary rules and regulations of Universiti Teknologi MARA.

Name of Student Student's ID No. Program Faculty Project Title Siti Fazreen Binti Abdul Rashid 2012483996 Master of Science (Information Technology) Faculty of Computer and Mathematical Science Interactive E-learning of Hajj using Graceful Interaction Concept for Elderly

Signature of Candidate Date

21/1/2014

4

ABSTRACT

The growth of technology has spurred research towards the creation of human values through digital engagement. Research on human computer interaction (HCI) has begun to explore dimensions of human value derived from the aesthetics of interaction. To further explore new forms and perspective of aesthetics of interaction, graceful interaction design has been conceptualized to enrich human computer engagement. The aim of this research is to apply graceful interaction concepts in development of e-learning hajj courseware for elderly. The design elements of the graceful interaction concept adapted from the theory of Laban Movement Analysis which focus on formal movement quality has been mapped in hajj courseware. The design guideline for elderly is identified to meet the elderly needs. The Visual Information Seeking Mantra (VISM) is identified and applied as a flow of interaction guideline for elderly. Then, a user testing is conducted to get their response about the courseware. The finding of user testing shows that the design elements able to create a graceful interaction and enhance user experience.

ACKNOWLEDGEMENT

"In the name of Allah, Most Gracious, Most Merciful"

Alhamdulillah, thanks to the Almighty Allah for leading me the way to finish up this project successfully. A big gratitude to my thesis supervisor, PM Dr. Wan Adilah Binti Wan Adnan, for accepting me under her supervision and support my idea of the project title and also thanks for always being there when I needed you around. Not to forget to my beloved parents, Abdul Rashid Bin Saied Batcha and Siti Aishah Bt Idris for their loves and cares, who have fully inspired me to keep on breathing during these suffering periods. Without them I will not be at this stage. To all my friends, thank you for your support and spirit. Last but not least, my greatest appreciation gives to everyone involved directly and indirectly in this study for his or her contribution and encouragement they have placed on me. Without everyone support, this final report would not be as presented here. Throughout these crucial periods, I discovered a lot of new things and I learned to manage something. To all readers, hopefully this thesis report will be beneficial to you. Do not afraid to expose yourself to a new thing because we all learned from discovery. Believe me, something that is hard to get is something too hard to forget.

Thank You.

TABLE OF CONTENTS

STUDENT'S DECLARATION	i
ABSTRACT	ii
ACKNOWLEDGEMENT	iii
TABLE OF CONTENTS	iv
LIST OF FIGURES	vii
LIST OF TABLES	ix
CHAPTER 1: INTRODUCTION	
1.1 Research Background	1
1.2 Research Problem	3
1.3 Research Questions	4
1.4 Research Objective	4
1.5 Scope	4
1.6 Significant	5
1.7 Report Outline	5
CHAPTER 2: LITERATURE REVIEW	
2.1 Introduction	7
2.2 Graceful Interaction Concept	9
2.2.1 Definition of Graceful Interaction	9
2.2.2 Human Movement Perspective	10
2.2.3 Aesthetic Perspective	11
2.2.4 Laban Movement Analysis	12
2.2.5 Laban Theory of Effort	13

*