

UNIVERSITI TEKNOLOGI MARA

**Development of USE Lab Website for User Science
and Engineering Laboratory
(USE Lab)**

NUR ASYIKIN BINTI MOHD ZAMBERI

**BACHELOR OF SCIENCE (HONS.) INFORMATION
SYSTEM ENGINEERING
FACULTY OF COMPUTER AND MATHEMATICAL
SCIENCES**

NOVEMBER 2010

ACKNOWLEDGMENT

All praise and blessing be upon Allah for giving me the opportunity to fulfill this research successfully. At this precious moment, I would like to express my deepest gratitude and appreciation to my thesis supervisor, Dr. Fariza Hanis Abdul Razak. She has been such a supportive person throughout completing this project by giving me full guidance, advice, and motivation.

Also many thanks to both thesis coordinator, Assoc. Prof Rashidah Rawi and Mrs Wan Nor Amalina Wan Hariri for sincere suggestions and criticisms. I would also like to express my thanks to my friends and anyone who had given me brilliant ideas and comments, and sharing helpful information for this project.

Lastly, I would like to send the most special thanks to my parent for their encouragement, trust and motivation during the completion of this project and for the whole years of my studies.

Thank you.

ABSTRACT

User Science and Engineering Laboratory (USE Lab) of UiTM Shah Alam is a new high cost laboratory built for the purpose of usability testing research and project. The attention received by this lab is still less by looking at the few numbers of projects done. Hence, this research needs to be conducted as an effort to attract people who are interested in the area of usability practices to gain more information of services and facilities offered at this USE Lab. The main purpose of this research is to give opportunities on the USE Lab to promote their services through a website. For this reason, this research focuses on the design issues of developing the USE Lab website. The objectives of this research are to identify the contents of USE Lab website and to analyze the User Interface (UI) Design that will be applied in developing the USE Lab website. The achievement of these objectives is based on the reviewed done on 10 selected usability laboratory websites and from the literatures review on journals, articles, and books. The results from the comparison on those websites will be considered to be used in the design based on the guidelines from reading the journals and understanding the literatures review. Overall, this research had contributed in producing the USE Lab website for User Science and Engineering Laboratory of UiTM Shah Alam.

TABLE OF CONTENTS

APPROVAL	ii
DECLARATION	iii
ACKNOWLEDGEMENT	iv
ABSTRACT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF APPENDICES	x
<u>CHAPTER ONE: INTRODUCTION</u>	1
1.0 Introduction.....	1
1.1 Research Background.....	1
1.2 Thesis Statement	4
1.3 Aim of Research.....	5
1.4 Objectives of Research.....	5
1.5 Significance of Research	5
1.6 Summary.....	5
<u>CHAPTER TWO: LITERATURE REVIEW</u>	6
2.0 Introduction.....	6
2.1 Usability.....	6
2.1.1 Usability Engineering	7
2.1.2 Usability Testing.....	8
2.2 User Lab/Usability Laboratory	12
2.2.1 Advantages	13
2.2.2 Disadvantages.....	14
2.2.3 User Lab Website	15
2.3 Design Principles	17
2.3.1 Organize	17
2.3.2 Economize.....	20
2.3.3 Communicate.....	21
2.4 Guidelines of A Good Web Design	24
2.5 Summary.....	28

CHAPTER 1

INTRODUCTION

1.0 Introduction

This chapter briefly describe about the background of the problem which leads to the rational of this research called problem statement. It also describe about the aim, objectives and significance of this research.

1.1 Research Background

The issue of usability is a big concern for most of system designers and a main focus of research in the area of HCI (Dillon, 1988). It is the degree to which software and hardware are easy to use and fit the need for people who is going to use them. Usability characterizes the ease of use that encompasses the efficiency, effectiveness, satisfying, and acceptance by those who use the product (UPA, n.d.) (University of The West Indies, n.d). Moreover, usability according to the International Standards Organization (ISO9241-11) defined all of the above characteristics as to which a specified set of users can achieve a specified set of tasks in a particular environment. This suggests that in order to get usable product, a usable system of testing process should be develop to fulfill the user's need.

Therefore, to get a useful product or a website is hard to achieve without working on the usability testing in which this be done in a usability lab. According to Peter Abraham (2008), usability laboratories or the user lab have been around for many years to try and meet this need.