APPLYING KEYSTROKE LEVEL ANALYSIS TO FACILITATE THE USER INTERFACE DESIGN OF WEB-BASED COMPLAINT MANAGEMENT SYSTEM (WCMS) AT UNIVERSITI UTARA MALAYSIA

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ABSTRACT

The purpose of this study was to investigate the usability and user performance of Web-based Complaint Management System (WCMS) in Universiti Utara Malaysia (UUM). This study was evaluated the WCMS by predicting the execution time taken by the user to accomplish their task. Ten (10) users from Universiti Utara Malaysia that known as active users of WCMS were interviewed to understand the problem of WCMS and also the process of the task flow. Task Analysis (TA) was used to identify the flow of task and scenario statement in WCMS. Simplified Hierarchical Task Analysis (HTA) was suggested to meet the objective of this study. Hierarchical Task Analysis (HTA) was used to identify the user task and described in graphically. Keystroke Level Model Analysis (KLM) was applied in this study to predict the user performance by evaluating the estimation time and focus on keystroke level operators with no goals, method or selection rules. The prediction time is calculated through summed up the estimation time of keystroke and mouse movement by a user to complete a task. The simplified HTA and the proposed task description were transformed into a mock-up user interface design layout that represents the prototype that would be developed by developer. The proposed model of WCMS allows users to carry out their task efficiently and effectively thus allows the organization to satisfy their customers.

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'In the name of Allah the Most Gracious and Most Merciful'

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INTRODUCTION

1.1 Introduction

The aim of this chapter is to discuss on the project background and mainly involves in usability evaluation of existing system. The objective, problem statement, scope and significant of study were also explained in this chapter.

One of the most important issues focusing by system designers today is system usability and user performance (Zaugg, 2007). According to Pikkarainen et al. (2004), system designers must make sure that the system is easy to use, easy to learn, effectively and efficiency in order to increase user satisfaction and user acceptance of the system.

In this study, an evaluation of system usability and user performance on Web-based Complaint Management System is discussed such as examine how user interact with WCMS, execution time for a user to complete a set of tasks, and assess whether the performance of proposed model of WCMS is acceptable.

1.2 Complaint Management System

In fact none of the organization could achieve success without having good relationship with customers (Lisa, 2007). Improved or increased customer satisfaction is one of the

The contents of the thesis is for internal user only

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