Universiti Teknologi MARA

Defining The Usability of Query Performance : An Experimental Approach

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ABSTRACT

Prior research on human ability to write database queries has concentrated on the characteristics of query interfaces and the complexity of the query tasks. This paper reports the results of a laboratory experiment that investigated the relationship between user characteristics and query types on performance by using Ms Access and MySQL database systems. This relationship is not investigated in earlier database research, while controlling the query interface, data model, technology, and training. By using two types of database systems in this research which is Ms Access and MySQL, is important to compare which database system is easier, comfortable to use and meet the project requirements of the users. This report also discuss about the effect of database query types on task performance. Finally, task complexity was found to be the main determinant of user confidence. The implications of this result for future research and practice are discussed.

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CHAPTER 1

INTRODUCTION

1.0 Preface

This chapter will discuss on research background and research problem. It will discuss research scope, objectives and significant of the research.

1.1 Research Background

Usability evaluation is increasingly being used in the development of software, especially for evaluation of user interaction designs. There is also a growing body of results from usability evaluations of existing systems. All of these activities rely fundamentally on specific definitions of what usability is because this definition is the foundation for determining to what extent the evaluated system is usable. One such definition has been developed by ISO, and it is referred to as ISO-9241 (ISO 9241-11). Here, usability is defined in terms of three factors: (1) effectiveness, which is the accuracy and completeness with which users achieve certain goals, (2) efficiency, which is the relation between the accuracy and completeness with which users achieve certain goals and the resources expended in achieving them, and (3) satisfaction, which is the users' comfort with and positive attitudes towards the use of the system. This is all about how to measure usability.

Human ability to retrieve data correctly from structured databases has historically been an important area in MIS human factors research (Reisner, 1981; Chan et al., 1998). This body of research has primarily focused on the characteristics of the