MULTIMODAL-BASED MOBILE APPLICATION: A DEVELOPMENT OF PROTOTYPE FOR ACCESSING STUDENTS' ACADEMIC RESULTS AT UUM

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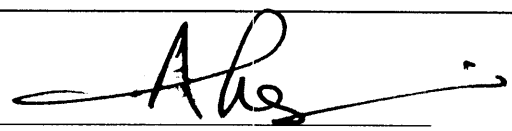
(Signature) : 

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ABSTRAK

Projek ini bertujuan untuk membangunkan sebuah prototaip yang berasaskan aplikasi mudah-alih yang berbentuk multimodal untuk menyemak keputusan peperiksaan pelajar di UUM. kerja kertas ini menerangkan proses sistem rekabentuk dan sistem pembangunan dengan menggunakan pelbagai jenis perisian dan mematuhi rekabentuk garis panduan. Sistem ini menerima input dari segi bentuk pertuturan dan stilus dan juga memberi maklum balas dari segi bentuk grafik dan teks. Pengguna boleh memilih input modal pada bila-bila masa yang dia ingini. Ujian usability telah dijalankan di mana enam orang telah disoal selidik tentang prototaip ini. Projek ini mendapati kadar usability adalah tinggi dan ramai orang bersetuju dengan prototaip tersebut. Projek ini boleh dijadikan sebagai panduan dalam pembangunan aplikasi mudah-alih berbentuk multimodal untuk kajian pada masa akan datang.

ABSTRACT

The aim of the project is to develop a prototype of multimodal-based mobile application for retrieving student's results at UUM. The paper describes the system design and development process by using various software and design guidelines. This system accepts input both in spoken and stylus and provides feedback in graphics and text. User can choose at anytime which of the input modalities he/she prefers to use. A usability testing was carried out in which six subjects were asked to evaluate the prototype. This project has found that usability rates are rather high and respondents are well-accepted this prototype. This project can be served as a model for future studies in developing multimodal-based mobile application.

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CHAPTER 1
INTRODUCTION

1.1 Background of Study

Mobile application can be range from web sites to software that works together with mobile devices and services to provide seamless interaction between people and information. Mobile application provides considerable benefits. Among them is facilitating accessing of information. With the mobile application, mobile worker whom is a busy user not longer restricted working in front of conventional desktop PC system. While accessing Internet information, they can be also working on document editing, store contact information and updating another database.

Meanwhile, multimodal application combines natural input modes such as audio (e.g. in the form of speech), vision (in the form of text and graphics, or moving video), and touch-tone and searches for the meaning of these combined inputs. Research has proved that applying multimodal interface in mobile application is expected to support for wider range of various applications and enhance usability of system (Treblesi *et. al.*, 2002).

With the increasing number of UUM students own mobile device and hotspot facilities are setup at the surrounding of campus, students are looking for the faster way of retrieving information at anyplace and anytime especially in accessing student' academic results. So far, such application has not yet been implemented at UUM. Therefore, to have this application to be implemented in UUM is very crucial. A prototype of multimodal-based mobile application on accessing student's results at UUM is developed due to above factors.

The contents of the thesis is for internal user only

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