

**ONLINE INSTRUCTIONAL CONSULTATION (OICON) MODEL FOR
HIGHER EDUCATION INSTITUTION**

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Abstrak

Tujuan penyelidikan ini adalah untuk menyelesaikan masalah program telementoring yang terdiri daripada: (1) salah faham dalam komunikasi akibat daripada kekurangan kiu bukan lisan, (2) keperluan dan kecekapan dalam komunikasi bertulis dan kemahiran teknikal, dan (3) isu tentang rakaman, mendapat dan memainkan semula rakaman. Objektif utama kajian ini adalah untuk memperkenalkan model konsultasi (OIcon) yang boleh dijadikan sebagai platform untuk melaksanakan konsultasi dalam talian bagi pelajar dan pensyarah di institusi pengajian tinggi. Objektif khusus bagi penyelidikan ini adalah untuk mengenalpasti komponen multimedia yang sesuai untuk diimplementasikan dalam model konsultasi, membangunkan model konsultasi (OIcon) berdasarkan prinsip dan garis panduan e-konsultasi, membangunkan prototaip, menguji dan menilai penerimaan pelajar dan pensyarah terhadap modul konsultasi secara atas talian ini di institusi pengajian tinggi. Model yang dihasilkan adalah berdasarkan fungsi-fungsi penting komponen komunikasi multimedia yang dikemukakan oleh penyelidik terdahulu serta cadangan daripada pakar IT dalam bidang teknologi maklumat dan pendidikan. Model ini kemudian diterjemahkan ke dalam bentuk prototaip untuk diuji oleh 40 pelajar and 8 pensyarah dan tutor dari segi penerimaan teknologi dengan menggunakan modul TAM. Sebelas hipotesis diperolehi dari 7 faktor-faktor TAM dengan pemboleh ubah penggunaan sistem sebenar dikecualikan. Hubungan hipotesis di antara 4 faktor (kebergunaan Persepsi (PU), Kemudahan Persepsi Penggunaan (PEOU), Sikap, Niat Tingkah Laku (BI)) disokong kecuali PEOU tidak mempunyai hubungan yang positif dengan sikap seperti yang diramalkan. Kepentingan Persepsi Komponen Komunikasi dan Ciri-ciri mempunyai hubungan positif dengan PEOU. Pengguna bersikap positif ke arah pelaksanaan alat komunikasi multimedia dalam konsultasi di institusi pendidikan tinggi. Pengguna berpendapat bahawa komponen komunikasi adalah penting jika komponen mudah digunakan. Mereka bersetuju bahawa mereka akan menggunakan prototaip OIcon pada masa akan datang dari segi PU dan Sikap.

Kata Kunci: Kiu bukan lisan, Kajian tindakan, Modul TAM, Keberkesanan diri

Abstract

The purpose of this research is to solve the problems of the existing telementoring program which are (a) the miscommunication due to lack of nonverbal cues, (b) the need or competency in written communication and technical skills, and (c) the issue regarding recording, retrieving, and playback of consultation recorded document. The main objective of this research is to develop an appropriate online consultation model for higher education institution. The specific objectives of this research are to identify suitable multimedia components to be implemented in the online instructional consultation (OIcon) model, to develop a prototype, and to test and evaluate the acceptance of online instructional consultation (OIcon) prototype by students and lecturers in higher education institution. OIcon model was established based on the identification of multimedia communications components and features that were adapted and adopted from the existing online financial consultation, tele-medicine consultation model as well as major e-consultation components for public policy consultation. In addition, recommendations from the IT and Educationist experts were also taken into consideration. This model was then transformed into a prototype and tested on 40 students and 8 lecturers. Eleven hypotheses are derived from 7 factors of TAM with actual system variable excluded. The hypotheses relationships among these 4 factors (Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Attitude, Behavioural Intention (BI) are supported except that PEOU does not have positive relationship with attitude as predicted. Perceived Importance of Communication Components and Features have positive relationship with PEOU. Users are relatively positive towards the implementation of multimedia communication tools for consultation in higher education institution. Users perceived the communication components as important if the components are easy to use. They agreed that they will use the OIcon prototype in the future in term of PU and Attitude.

Keyword: Nonverbal cues, Action research, TAM model, Self-efficacy

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List of Abbreviations

ACL	Access Control List
AR	Action Research
AVI	Audio Video Interleave
BI	Behavioral Intention
CMC	Computer-mediated communication
EE	Effort Expectancy
EOU	Ease of Use
FC	Facilitating Conditions
FMS	Flash Media Server
GIF	Graphics Interchange Format
GSS	Group Support System
HCI	Human Computer Interaction
HEIs	Higher Education Institutions
HTTP	Hypertext Transfer Protocol
IBSTPI	International Board of Standards for Training, Performance and Instruction
ICT	Information Communication Technology
ICTs	Instructional Consultation Teams
ID	Identity
ID	Instructional Design
IS	Information System
JPEG	Joint Photographic Experts Group
K-12	Kindergarten through 12 th grade in the United States and Canada
MP3	MPEG-1 or MPEG-2 Audio Layer III
OIcon	Online Instructional Consultation
PDF	Portable Document Format
PE	Performance Expectancy
PEOU	Perceived Ease of Use
PU	Perceived Usefulness
RSO	Remote Shared Object
RTMP	Real Time Messaging Protocol
SE	Self-efficacy
SME	Subject Matter Experts

SPSS	Statistical Package for Social Science
SWF	Shockwave File
TAM	Technology Acceptance Model
VOD	Video on Demand
WWW	World Wide Web

CHAPTER ONE

INTRODUCTION

Online consultation, one of the advancement of information and communication technology (ICT) in consulting services, is being extensively offered in various contexts such as medical teleconsultation (Costanzo & Monari, 2006), online consultation for medical curriculum (Ortega, Lessard, Burgun, & Beux, 2005), online financial service consultation (onlineconsultation.com) and public policy consultation (Fagan, Newman, Paul, & Murray, 2006). Consulting service is no longer time-bound and place-bound information delivery process. Many organizations have discovered ICT beneficially in solving distance problem and forming virtual team consultation which consists of staff that collaborate at geographically dispersed place (<http://www.onpointconsultingllc.com>). This consulting service would be offered with much more flexible information delivery ways through a plethora of multimedia technologies. Indeed, according to Newman (2005), conducting online consultation service helps to keep cost to a minimum while offering competitive service based on client's demand as well as enabling staff to work from client's location regardless of the distance.

At the early phase of conducting online consultation service, asynchronous technology such as e-mail and forum discussions are commonly applied as collaboration tools among virtual team staff compared to synchronous technology that enhances the collaboration at real time (Kinney & Panko, 1996). Nowadays, as the advantages of synchronous communication technology is acknowledged, many organizations have started to blend this advanced technology as part of their e-consultation that enables participants to communicate in synchronous and

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