INVESTIGATING THE USE OF AN ONLINE CLASSROOM IN UNDERSTANDING THE LEARNING PROCESS OF KUITTHO STUDENTS

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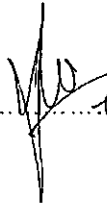   Terengganu , Malaysia.

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INVESTIGATING THE USE OF AN ONLINE CLASSROOM IN
UNDERSTANDING THE LEARNING PROCESS OF KUiTTHO STUDENTS

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SPECIALLY DEDICATED TO MY BELOVED FAMILY AND FRIENDS,
THANKS FOR BEING THERE

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ABSTRACT

The aim of this research is to investigate how KUiTTHO students use an online classroom for the purpose of learning technical subjects, to identify the topics discussed by the KUiTTHO students in an online classroom, to investigate their behavior act during and after using the online classroom over a period of time and to evaluate the influence of online classroom toward standard interaction and learning. This research adopted a combination of qualitative and quantitative research. The participants of this research were the students of Electrical Department at KUiTTHO. These students were the ones taking electrical course (technical subject) that was Circuit Theory during their study at KUiTTHO. The researcher used four methods in data collection. There are interview, observation, content analysis and questionnaires. Nicenet is used in collecting the data in this research. At the end of this research, the finding shows that the participants showed their interest in online classroom. Most of them agree that Nicenet should be applied into the process of teaching and learning the technical subject in institution of higher education in Malaysia.

ABSTRAK

Tujuan kajian ini dijalankan adalah untuk mengkaji bagaimana pelajar-pelajar KUiTTHO menggunkan *"online classroom"* untuk tujuan pembelajaran subjek teknikal, untuk mengenalpasti topik-topik yang dibincangkan oleh pelajar-pelajar KUiTTHO dalam *"online classroom"*, untuk mengkaji tingkah laku pelajar-pelajar semasa dan selepas menggunakan *"online classroom"* untuk jangka masa tertentu dan untuk menilai pengaruh *"online classroom"* terhadap interaksi piawaian pengajaran dan pembelajaran. Kajian ini merupakan kombinasi kajian kualitatif dan kuantitatif. Peserta-peserta dalam kajian ini merupakan pelajar-pelajar Jabatan Kejuruteraan Elektrik di KUiTTHO. Pelajar-pelajar ini mengambil kursus elektrik (subjek teknikal) iaitu Teori Litar semasa pengajian mereka di KUiTTHO. Pengkaji menggunakan empat jenis kaedah dalam pengumpulan data, iaitu temuramah, pemerhatian, analisis kandungan dan borang soal selidik. Nicenet digunakan dalam mengumpul data dalam kajian ini. Pada akhir kajian ini, dapatan menujukkan peserta-peserta menunjukkan minat mereka dalam *"online classroom"*. Kebanyakan daripada mereka bersetuju agar Nicenet diaplikasikan ke dalam proses pengajaran dan pembelajaran subjek teknikal di institusi-institusi pengajian tinggi di Malaysia.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDIXES

CHAPTER I

CHAPTER I

INTRODUCTION

1.1   Background of Study

In response to increased pressure on universities and instructors to provide instructional delivery systems that go beyond the traditional "chalk and talk" from lecture, computer-mediated conferencing has emerged as a tool for instructional communication not bound by prescribed meeting times or by geographic proximity. Computer mediated communication (CMC) was used to encompass the merging of computers and telecommunication technologies to support learning and teaching. As it is currently used to support instructional purposes, CMC provides electronic mail and real time chat capabilities, delivers instruction, and facilitates student to student and student to teacher interactions across a desk or across the world. These uses are enabling and promoting several paradigmatic shifts in teaching and learning, including the shift from instructor centered to student centered distance learning and the merging of informal dialogues, invisible colleges, oral presentations, and scholarly publications into a kind of dialogic (or even multilogic) virtual university. (Berge, Z. and Collins, C., 1995)

The use of instructional CMC can be categorized into three ways: for conferencing, informatics, and computer assisted instruction (CAI). Computer conferencing provides e-mail, interactive messaging, and small and large group discussion. Informatics (repositories or maintainers of organized information) includes library online public access catalogs (OPACs), interactive access to remote databases, program/data archive sites, campus wide information systems, wide area information systems, and information managers, such as Gopher and Veronica. (Berge, Z. and Collins, M., 1995).

In CAI, the computer is used to structure and manage both the presentation of information and the possible responses available to the human user. Uses of computer conferencing, informatics, and CAI include (Berge, Z. and Collins, M., 1995):

☆ Mentoring, such as advising and guiding students

☆ Project-based instruction, either within the classroom or in projects involving community, national, or international problem solving

☆ Guest lecturing, which promotes interaction between students and persons in the larger community

☆ Didactic teaching, that is, supplying course content, posting assignments, or other information germane to course work

☆ Retrieval of information from online information archives, such as OPACs, ERIC, and commercial databases

☆ Individual and group presentations

☆ Peer review of writing, or projects involving peer learning, groups/peer tutorials sessions, and peer counseling

☆ Computer-based instruction, such as tutorials, simulations, and drills.

CMC promotes self-discipline and requires students to take more responsibility for their own learning. Using CMC, instructors can vary a course's instructional design to include everything from structured projects to open projects in which students are free to work on messy but authentic problem solving. On the other hand, because students

must manage their own learning, this newfound independence may be a hindrance to those students who need more structure.

No one can deny that we have entered an information age in which power comes to those who have information and know how to access it. If we consider which factors of CMC will be most important to education in the information age, it seems that our goals should be to develop self-motivated learners and help people learn to find and share information. If designed well, CMC applications can be used effectively to facilitate collaboration among students as peers, teachers as learners and facilitators, and guests or experts from outside the classroom.

1.2   Statement of Problems

As stated by Pea and Soloway in a report for the U.S. Congress Office of Technology Assessment (1987), technology might be the factor to help "bridge the ever-widening gaps between schools and society". Technology has advanced rapidly (perhaps more rapidly than many in the field expected) over the last few years and there have been literally hundreds of published studies investigating its educational effect. Although there might not yet be a definitive conclusion since it is becoming apparent that the type of learning that technology best enhances is difficult to quantify (Johnson, 1996).

With regard to the earlier issue regarding the relevancy of technology in education, most of the more current literature is overwhelming positive about the potential of a variety of technologies to be powerful components in accomplishing current educational visions. Such visions include helping students develop a broad, deep, and creative understanding community, culture, economics and international politics, past and present, and acquire the social skills to work across differences and distances. (Riel, 1993) by providing array of tools for acquiring information and for thinking and

expression allowing more children more ways to enter the learning enterprise successfully. These same experiences provide the skills that will enable students to live productive lives in the global, digital, information-based future they all face (Dwyer, 1994).

From the interview that had been conducted with the students who are now studying in KUiTTHO (2002), the researcher found the following problems faced by them while they are studying in KUiTTHO.

- They were shy to express their opinions during class session.
- They felt that the traditional way of learning consumed a lot of time.
- The Internet and computer facilities provided were not enough.
- They spent a lot of money and time in printing and binding the assignments.
- They faced problems in getting extra reading materials or lack of reference materials in the library and also they are not updated.
- They felt that the traditional way of teaching was not appropriate with modern times.

1.3   Research Questions

The research questions were :

1.3.1   How did the use of an online classroom help KUiTTHO students in their learning process?

1.3.2   What were the topics discussed by KUiTTHO students over a period of using online classroom?

1.3.2   How did they perceive over the learning?

1.4   Objectives

The objectives of the research were:

1.4.1 To investigate how KUiTTHO students use an online classroom for the purpose of learning.

1.4.2 To identify the topics discussed by the KUiTTHO students in an online classroom.

1.4.3 To investigate their behavioral act during and after using the online classroom over a period of time.

1.4.4 To evaluate the influence of online classroom toward standard interaction and learning.

1.5   Limitation of the Research

This research is conducted involving students from a chosen class. These students specialize technical subjects. The subject chosen was a technical one. Due to the limitation of time, the research was carried out within five to eight weeks only.

1.6   Definition of Terms

1.6.1   Online Classroom

Online classroom is a free web server that hosts classrooms on the Internet. By using online classroom, an instructor may create a classroom, post topics, run discussion groups, add informational links, make announcements and so forth.

1.6.2   Learning

Driving the changes have been society's expectations about what students need to learn-its changing definition of learning- as well as the delivery of mechanisms, or technology, available to serve that need.

Its seems that the definition of learning is changing in a number of ways. The society is beginning to have different ideas about what students need to learn. Driven by the information explosion, or the knowledge explosion, the society's expectations about what a student should learn are changing. Increasingly, viewing institution of education as mastery of a body of knowledge or a complete preparation for a lifetime career is becoming outmoded. Instead, the graduates need to have acquired skills, such as critical thinking, quantitative reasoning, and effective communication, along with abilities, such as the ability to find needed information and the ability to work well with others.

Learning in other word is gaining knowledge or skill by experience, by study or by being taught. Passive learning is where the student just takes in what the tutor teaches. This is said to be less effective than active learning, where the student seeks out what he or she wants to understand. Passive learning is said to encourage surface

learning rather than deep learning. Deep learning looks for the meaning of what is being learnt. Surface learning concentrates on the words rather than the meanings of what is being studied. The term active learning can be applied to a student's attitude, or to teaching methods that may force a student to be active.

In this research, the researcher tends to investigate which type of learning is applied among the participants in this study.

1.6.3 Personality

Characteristics and qualities of a person seen as a whole. Personality is the sum total of the typical ways of acting, thinking, and feeling that makes each person unique. Everyone has a uniquely different way of viewing the world, other people, and themselves. There is not "one reality" but rather a sharing of partial common realities among people.

Personality is a determinant of behavior. According to Kurt Lewin's formula:

BEHAVIOR (B) = F[PERSONALITY (P), ENVIRONMENT (E)]

The determinant of behavior can be separated into 2 classes of variables : personality and environment. The difference is that personality variables are internal causes of behavior and environmental variables are external causes of behavior.

In this research, the researcher tends to analyze the personality of the participants of this research by studying their behavior during and after using the online classroom.

1.6.4 Computer Mediated Communication (CMC)

Computer mediated communication (CMC) signifies the ways in which telecommunication technologies have merged with computers and computer networks to give us new tools to support teaching and learning. CMC described the ways we humans use computer systems and networks to transfer, store, and retrieve information, but our emphasis is always on communication. Computer network is a primarily mediator for communication rather than a processor of information.