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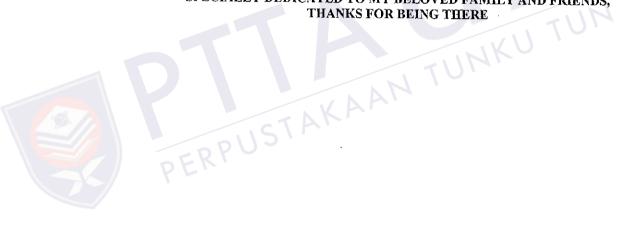UNDERSTANDING THE LEARNING PROCESS OF KUiTTHO STUDENTS

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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.

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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.

CHAPTER II

CHAPTER II

LITERATURE REVIEW

2.1 Introduction

Instead of being passive recipients of knowledge, we now consider students capable of constructing their own knowledge with guidance from teacher. Teacher can offer part of this tutorial guidance by setting up an environment that will provide students with the resources necessary for independent exploration. In using emerging computer based technology as a resource, students are encouraged to explore their own interests and to become active educational workers, with opportunities to solve some authentic problems.

The type of change enabled by CMC does not just involve adding new technology to old ways of organizing teaching and learning (Moore, 1993). The paradigm shift is from a teaching environment to a learning environment. Too often students have little choice in what to learn, how to learn it. When content is meaningless to the students' world view, when they are taught as if they were passive recipients of knowledge, or when they have little engagement in the instructional tasks, students have no incentive to construct their own knowledge and little motivation to retain information or transfer its use to novel situations. The students' ability to create knowledge can be enhanced when their instructors use varied instructional delivery formats to provide a richer environment that is used in most education practiced today.

2.2   Ethnography

According to Nicolas Cook (2001), ethnography refers essentially to fieldwork-based research that examines the behavior and form of institutions, social interactions and exchanges, and the creation and use of meaning in particular and limited social contexts, such as villages, bureaucracies, and street corners. An important goal of ethnography is to enable understanding and insights to independently and spontaneously grow out of the social setting that is being studied, rather than to approach with a predetermined hypothesis or theory that must be empirically proved or disproved. The focus is on the expression and representation of emergent experience and meaning in discrete, microscopic social settings, rather than taxonomic description and reduction of the micro-setting to a mere illustrative instance that fits some pre-conceived scheme of categorization, such as a body of theory or a set of hypotheses.

Almost all the ethnographic research involves context-specific research, where the researcher attempts to understand, describe, and interpret the complex of institutions, people, and behavior that characterize the study setting by immersing herself in them. By planning an active role in the social life of the research setting while simultaneously studying it (by becoming a participant observer). The researcher hopes to comprehend and explain it as a complex, living reality that is characterized by nuance, irony, conditions, and multiple subtle meanings and inter personal positioning.

The classic methodology of ethnography fieldwork is the taking of fieldstones, first hand observations recorded in the field, and the repeated writing, rereading, and recontextualizing of these notes. Fieldnotes from the hard data from which ethnographies are written, but they are often idiosyncratic and highly personalized. In this sense, they are more like log books or diaries that the kind of data collections that scientific or quantitative researchers would consider hard and find useful. In addition to fieldnotes, ethnographers use headnotes, or sum of experience, memory, and schematized knowledge carried in their minds to critically shape the use and application

of accompanying written records. Increasingly, many researchers are using qualitative data software that allows field data to be typed up and coded, so that it can be sorted highlight or isolate material that pertains to a particular topic. In addition, other media, such as film, video and audio recorders, have been used to record field data, and are often carefully edited to create new and contrasting perspective and old subject matter.

The goal, in using fieldnotes and headnotes, is to transcribe what may be fragmentary (or, conversely, elaborately coded and detailed) field and headnotes into concise and approachable, yet comprehensive and factually veritable accounts of the complexities of social life. In addition, the text that emerges should be culturally meaningful to both the intended readership and to the people or culture described. The challenge here is to successfully reflect and combine both the objective social experience being portrayed and the inherent subjectivity of the observer's personal experience.

Much ethnographic work is concerned with explicitly describing social life (or more often than not, a sub component of it). This descriptive task often, by necessity, involves interpretation and therefore the making of value judgement. Increasingly, the process of putting the concrete end results. What is at issue are the moral decisions, ethics, and politics that are involved in assessing and signifying meaning about other people's lives and values.

Three of the major issues that must be dealt with are inter subjectivity, self-reflexivity and power relations. For instance, if an adequately funded researcher from North America working with a remote, poor, and politically powerless indigenous group in Africa learns the local language and spends five years in the local community, can she ever gain a true insider's view of the culture? Can she ever overcome her structurally define elite position vis-à-vis the vast majority of the population? Must she depend on informants, who may alter information or its telling for expedient or protective purposes, and if so, how accurate is the information that she gathers? Are informants better

conceived of a s colleagues, employees, or ethnographers themselves? Does academi training alone create the ethnographer? If so, is ethnography simply a Western elite cultural practice rather than an intrinsically valuable act of veritable representation? Likewise, how much of ethnography is personal interpretation, and how much is a reflection of reality?

Similar issue arise out of the divorce between research in the field site and act writing, and between repeated, inter temporal readings of the same set of texts (fieldnotes, diaries, records, tapes). How much of the immediacy of experience is lost when events and persons must be reconstructed from brief texts, and how does this reconstruction change each time the text is reviewed?

While individual ethnographies by anthropologists and sociologists based on long-term field experience have traditionally formed the core of ethnography, the methods developed by these classic studies have been adopted and altered to suit a br range of disciplines and research needs.

In contrast to quantitative research, which focuses on measurement of size, incidence, and so on, and requires preconceived, stated premises and clear definitions the object or variable to be measured, qualitative research is essentially concerned wit making describing complex social phenomena. Because ethnography is concerned wi making sense of social life, it represents a major branch of qualitative research.

Other major models of qualitative research that may incorporate ethnography, but are distinct from it, are action research, grounded theory research, and the case stu approach. Action research are often undertaken by researchers with a personal, often political interest in an applied problem, such as sociologist who wishes to design a mc efficient shelter organization for the homeless. Grounded theory work attempts to brid the gap between macroscopic theory formulation and large populations, and micro studies, which tend to focus on small, discrete parts of larger societies and small, grou

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