



**LEARNER COLLABORATION:  
AN EVALUATION OF AN ONLINE CONFERENCING**

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It is hereby confirmed that the student has done all the necessary amendments of the project for acceptance.

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*Everyone is the architect of their own learning...*  
*- Appius Claudius, 4<sup>th</sup> Century B.C.*

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## LIST OF ABBREVIATIONS

1. **IRC** Internet-Relay Chat
2. **CAI** Computer-Assisted Instruction
3. **BBS** Bulletin Board System
4. **REAL** Rich Environment for Active Learning
5. **WWW** World Wide Web
6. **TESL** Teaching of English as a Second Language
7. **PBT3193 ESP** PBT3193 English for Specific Purposes
8. **CLS** Centre for Language Studies
9. **CALM** Centre for Applied Learning and Multimedia
10. **UNIMAS** University Malaysia Sarawak

## ABSTRACT

### **Learner Collaboration: An Evaluation of an Online Conferencing**

**Augustine Samuel**

The online conferencing represents a new domain for collaboration, intellectual interaction and knowledge creation. The magnitude of online conferencing is steadily increasing and has become an integral part of the online learning environment in Universiti Malaysia Sarawak. This study attempts to evaluate the effectiveness of online conferencing as a tool to encourage learner collaboration in the *PBT3193 English for Specific Purposes (PBT3193 ESP)* course.

The Centre for Language Studies offered the *PBT3193 ESP* course to TESL undergraduates. The course was conducted for the sample group of 29 TESL undergraduates on a part lecture part tutorial basis over one semester in the academic year of 2001/2002. The online conferencing was used as a tool to support classroom discussion assignment on issues related to the course. An analytical framework proposed by France Henri (1992) was applied in this study. This framework defined the fundamental structure of online conferencing, which deals essentially with both the *product* (the participative, social and interactive dimensions) and the *process* (the cognitive and metacognitive dimensions) of learning. The analysis of messages was based on the prescribed success indicators outlined in the respective dimension of the framework.

Henri's analytical framework provides methods to assess both the level and nature of interaction, which provided an overview of how students used the online conferencing. Analysis of the discussion content has provided a valuable conceptual lens for coming to an understanding of students' interaction in an online learning environment. The overall findings showed negative results, which failed to meet the prescribed success indicators of the framework. This means that the online conferencing in the *PBT3193 ESP* course showed no evidence of learner collaboration. Therefore, the online conferencing in this course failed to encourage learner collaboration among its students. Nevertheless, the findings can provide important information on how students used the online conferencing in their learning.

## ABSTRAK

### Kolaborasi Pelajar: Penilaian ke atas *Online Conferencing*

Augustine Samuel

*Online conferencing* merupakan satu ruang baru bagi memupuk kolaborasi, interaksi intelektual dan penciptaan ilmu. Kepentingan *online conferencing* kian meningkat dan telah menjadi sebahagian daripada persekitaran pembelajaran secara *online* di Universiti Malaysia Sarawak. Kajian ini bertujuan untuk menilai keberkesanan *online conferencing* sebagai pemupuk kolaborasi pelajar dalam kursus *PBT3193 English for Specific Purposes (PBT3193 ESP)*.

Pusat Pengajian Bahasa bertanggungjawab menawarkan kursus *PBT3193 English for Specific Purposes* kepada pelajar program prasiswazah TESL. Kursus ini dijalankan untuk kumpulan sampel seramai 29 orang secara separa syarahan dan separa tutorial selama satu semester dalam tahun akademik 2001/2002. *Online conferencing* digunakan untuk membantu tugas diskusi secara *online* bagi membincangkan isu-isu berkaitan dengan kandungan kursus. Garis panduan penilaian yang diperkenalkan oleh France Henri (1992) telah digunakan dalam kajian ini dan ia merangkumi struktur asas *online conferencing* yang menitikberatkan *produk* dan *proses* dalam pembelajaran. Proses analisis adalah berdasarkan kriteria-kriteria seperti penglibatan, aspek sosial serta interaktif, aspek kognitif dan metakognitif yang terkandung di dalam diskusi *online*.

Garis panduan penilaian Henri membolehkan penilaian dari segi tahap dan cara interaksi pelajar, dan seterusnya memberi gambaran menyeluruh tentang cara pelajar menggunakan *online conferencing*. Selain itu, analisis ke atas kandungan diskusi juga telah memberi gambaran konseptual yang berguna bagi memahami cara pelajar berinteraksi dalam persekitaran pembelajaran secara *online*. Hasil kajian menunjukkan keputusan yang negatif di mana diskusi pelajar gagal memenuhi kriteria-kriteria yang ditetapkan dalam rangka analisis berkenaan. *Online conferencing* dalam kursus *PBT3193 English for Specific Purposes* juga tiada menunjukkan sebarang tanda kolaborasi sesama pelajar. Ini bermakna penggunaan *online conferencing* dalam kursus ini telah gagal memupuk kolaborasi sesama pelajarnya. Namun begitu, hasil kajian ini boleh memberi maklumat yang penting tentang cara pelajar menggunakan *online conferencing* dalam pembelajaran mereka.

# CHAPTER 1

## INTRODUCTION

### 1.0 Introduction

Online learning is playing a very significant role within the education, information and communication paradigm. Online learning, and in particular, *computer conferencing* or *online conferencing* as it is variously called, often served as a powerful tool in retrieval and exchanging of information, sharing multiple perspectives through interactions with others and linking people with comparable interests despite their geographical distance or time constraints, determined by face-to-face meetings.

The rapid implementation of course delivery via online has resulted in the emergence of synchronous and asynchronous types of communication tools such as electronic mail, computer-conferencing e-forums and etc. Research has shown that discussions among students are central in all group-learning processes. Therefore, it is essential for the faculties in Universiti Malaysia Sarawak (UNIMAS) to provide the platform for supporting communication among their students.

Harasim (as cited in McKenzie and Murphy, 2000) describes the part that online interactions can play in collaborative learning environments, emphasizing the positive effects of being actively engaged in learning, sharing information and perspectives through

interaction with other students. Interactivity, the most striking characteristic of online conferencing, is the factor with the greatest influence on learning. It also encourages a collaborative process among students, which alters the nature of learning and increases its quality. This results in an increase in knowledge construction among students, both in quantity and quality.

A common feature of any online learning that facilitates interaction and collaboration among students is the utilization of the Online Discussion Board. The Online Discussion Board or *online conferencing*, as it is known here forth, is a shared space where collaboration and intellectual interaction among students occurs. Chapter 2 shall discuss the unique values of online conferencing in providing a collaborative learning environment.

## **1.1 Setting the Context**

In line with the rapid growth of Information and Communication Technology, UNIMAS has offered many undergraduate level courses that are supported with an online learning environment. Nevertheless, there is a need to distinguish between online courses, which are fully online and those that exist to support conventional instruction. Online courses that are fully online do not provide an avenue for the students to meet instructors physically but rather, the entire instructional delivery is done via computer networks. On the other hand, conventional instruction, that is supported online, provides both *encounter*, a scheduled face-to-face session in the classroom, as well as *interaction* outside the classroom via QuickPlace. The flexibility for both the students and instructors to access and

work on study materials is the hallmark to the implementation of online supported course delivery in this university. Instructors from various faculties are allocated a site hosted by the Centre of Applied Learning and Multimedia (CALM) to support their respective courses.

The Lotus QuickPlace is the university's online delivery tool, which both the instructors and students have ready access to. This software enabled students to participate and observe each other's online activities and stimulate them to engage in such activities, thus promoting a collaborative learning environment. Students are also encouraged to follow up on the online issues and raise points of debate or special interest. Besides providing students with web materials for their courses, the magnitude of online conferencing via the online discussion board is steadily increasing and has become an integral part of the online learning environment in UNIMAS.

This study is primarily based upon the notion that the online conferencing represents a new domain for educational interaction and collaboration. Apart from its share of superiority with face-to-face interaction, the nature of online conferencing as a shared space for collaboration, intellectual interaction and knowledge co-creation holds a distinct implication on learning. As opposed to the conventional face-to-face lectures, the key attributes, which characterized the online conferencing, are that it is place-independent, time-independent and it also act as a mode of mass interaction tool; otherwise known as "anytime, anywhere learning".



## **1.2 Hypothesis**

This study attempts to investigate the effectiveness of online conferencing as a tool to support learner collaboration in PBT3193 English for Specific Purposes course. The five dimensions outlined in Henri's framework will serve as success indicators in investigating the effectiveness of the online conferencing in the above-mentioned course.

## **1.3 Research Objectives**

Using a qualitative approach, this study seeks to gauge the effectiveness of online conferencing via the online discussion board as a tool for collaboration among TESL undergraduate students in UNIMAS. This group was provided an avenue to engage in discussion, which was part of a learning environment offered over an academic semester for the subject of PBT3193 English for Specific Purposes. This study uses the analytical framework for evaluating online conferencing proposed by France Henri (1992) because it allowed for analysis of a range of aspects of an online conferencing, the level of participation in the form of usage statistics, the nature of interaction between contributors and an indication of the learning process through an analysis of the cognitive activity evident in the message content (McKenzie & Murphy, 2000). The analysis is also aim at understanding the learning process involved through the negotiation of meanings in students' messages as well as providing information about the participants as learners, and their ways of dealing with a given task.

## **1.4 Research Questions**

Research questions are the fundamental features of this study because they put into perspective a focal point for the research to clutch so that significant and relevant information can be obtained. The questions to be explored in this study revolves around the following dimensions:

***RQ1:*** Based on Henri's framework, does the nature of interaction in the selected online conferencing environment meets the prescribed success indicators?

***RQ2:*** Does online conferencing encourage collaboration among class members?

## **1.5 Significance of the Study**

The findings will be used to gauge the success rate of online conferencing as a tool to support learner collaboration among class members in the subject PBT3193 English for Specific Purposes. Apart from this, the findings will also provide new perspectives or insights on the implementation or expansion of new or current web-supported courses offered by the Centre for Language Studies so as to further enhance the effectiveness of web-supported instruction in UNIMAS.

## 1.6 Limitations

Online conferencing is typically delivered in two ways, either synchronous or asynchronous mode. However, the focus of this study is limited to the text-based nature of online conferencing via the online discussion board only, which takes place in an asynchronous mode. The online conferencing is evaluated for its effectiveness as a tool to support learner collaboration.

The nature of collaborative learning process is analyzed based upon the analytical framework outlined by France Henri (1992). This shall include participative, social, interactive, cognitive and metacognitive dimensions. The analysis in this framework takes on learning as both the *product* and the *process*, which is connected to the cognitive approach to the learning process. This framework was designed to evaluate online conferencing in a distant learning context where students are independent of the face-to-face classroom. In the PBT3193 English for Specific Purposes course, online conferencing is used to supplement the regular contact hours, in discussing issues related to the course. The students are third year undergraduates in the same TESL program. The social bonding between the students may affect the way they respond to the online discussion. Nevertheless, it is adapted in this study as the dimensions outlined in the framework are useful in providing an overall picture of how learning occurs in this context. It can also provide indication as to whether online conferencing encourage learner collaboration.

## **1.7 Definition of Key Terms**

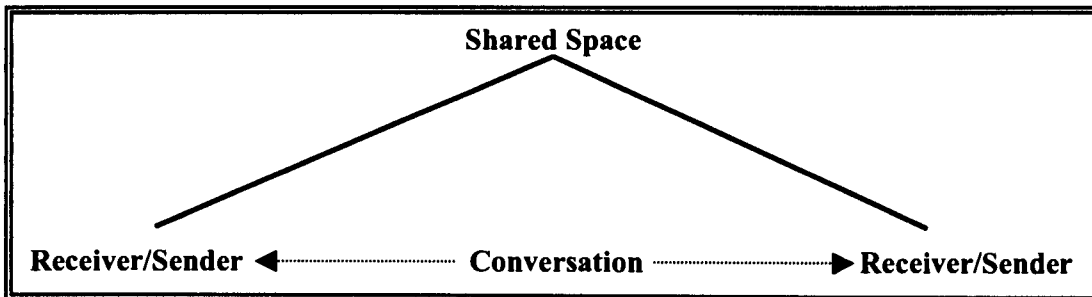
### *1.7.1 Learner Collaboration*

This is a process in which each member uses or contributes personal experiences, information, perspectives, insights, skills and attitudes with the intention of improving their learning accomplishments or knowledge co-creation. The group's collective learning is ultimately possessed by each member of the group. According to Reeves and Reeves (as cited in Khan, 1999), collaborative learning refers to instructional methods in which students work together in pairs or small groups to accomplish shared goals. They further reiterated that each member of the group could benefit both instructionally and socially through collaboration.

### *1.7.2 Online Conferencing*

This term refers to both synchronous and asynchronous communication. It is a collaboration tool conducted specifically for group discussion activities via computer and the Internet. According to Schrage (1990), collaboration tool such as online conferencing provide individuals with power to communicate in what he termed as a 'shared space' and to learn more effectively thus, offering different perspective on the best way to create new knowledge or value with others. Nevertheless, the 'shared space' only exist whenever there is effective collaboration occurring during the learning process (*see Figure 1*). However,

the working definition for this study shall focus only on the asynchronous nature of interaction via online conferencing.



*Figure 1 Shared Space (Schrage, 1990)*

### *1.7.3 Discussion Board*

This is a text-based medium for online discussion in which, information, knowledge, ideas or perspectives are shared or consolidated to achieve a desired goal. This channel is sometimes known as the Bulletin Board System (BBS).

### *1.7.4 Analytical Framework*

Proposed by France Henri (1992), this framework outlines five dimensions of the learning process represented in messages i.e. participative, social, interactive, cognitive and metacognitive dimensions (*see Figure 2*). This framework defines the fundamental structure of online conferencing, which deals essentially with both the *product* (participative, social and interactive dimensions) and the *process* (cognitive and metacognitive dimensions) of learning. The analysis for each dimension is represented in

five models, which shall be discussed in Chapter 3 of this study. This framework is the basis to this study as it suit the purpose of gauging the effectiveness of online conferencing.

<b>Dimensions</b>	<b>Definition</b>	<b>Indicators</b>
<b><i>Participative</i></b>	Compilation of the number of messages or statements transmitted by one person or group.	Number of messages. Number of statements.
<b><i>Social</i></b>	Statement or part of statement not related to formal content of subject matter.	Self-introduction. Verbal support: "I'm feeling great..."
<b><i>Interactive</i></b>	Chain of connected messages.	"In response to Chloe..." "As we said earlier..."
<b><i>Cognitive</i></b>	Statement exhibiting knowledge and skills related to the learning process.	Asking questions. Making inferences. Formulating hypotheses.
<b><i>Metacognitive</i></b>	Statement related to general knowledge and skills and showing awareness, self-control, and self-regulation of learning.	"I understand..." "I wonder..."

*Figure 2 The Analytical Framework (Henri, 1992)*

## 1.8 Summary

Chapter 1 has provided the background and objective of this study. Essential elements of this study such as the research questions, significance to target group, definition of key terms as well as limitations to this study had been outlined in this chapter. These aspects, which form the basis to this study, provide a focal point to carry out the study and meet the desired goals. The next chapter shall provide extensive theoretical perspectives

and reviews of relevant literatures on the nature of online conferencing and collaborative learning environment.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter presents the theoretical perspectives relevant to this study and discusses the significance of online conferencing as a tool to create a collaborative learning environment. Current publications or journals on educational and technology or other related research were consulted for extensive background information pertaining to the nature of online conferencing and collaborative learning environment.

#### **2.1 The Crux of Online Learning**

Online learning is a web-based networked learning environment customized for the design, delivery and enhancement of tertiary education. Harasim (2001) views online learning as a unique domain of educational interaction and co-creation of knowledge. This new learning environment is becoming more common and ever-growing number of students are choosing the online learning option to meet their educational needs. Many terminologies are used to describe online learning, such as web-based training, Internet-based training, e-learning, interactive distance learning, web-interactive training, and computer-mediated communication. Apart from these, there are various design approaches, technological capabilities, and development tools for online learning delivery. Though they