

**INTEGRATING COMPUTERS IN THE ESL  
SECONDARY CLASSROOM**

by

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This final year project is submitted in partial fulfilment of the requirements for the  
Degree of Bachelor of Science with Honours (ESL)  
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April 2008

## **Abstract**

This study aim to investigate the extent of the computer in the ESL classrooms and looked into the influences of computers in the teaching and learning process. This study involved 100 respondents from 14 secondary schools in Kuching/Samarahan District. The data was collected through questionnaire and semi-structured interview. 12 English teachers were chosen randomly for the purpose of interview. 83% respondents uses Microsoft PowerPoint, 59% uses Microsoft Words Processor to support their teaching and learning where it can attract and stimulate learners' interest. The findings also show that 64% respondents are currently using computer in their lesson. 95% respondents felt confident when using computer in their lesson, 88% respondents mentioned they have access to the technological resources. 100% respondents mentioned the use of computer in the classroom brings positive effect to their lesson. However, 95% respondents find that using computer in the classroom is time consuming. 86% respondents mentioned that using computer is very troublesome due to lack of training, lack of experiences learning with technologies.

## *Abstrak*

*Kajian ini bertujuan untuk mengkaji sejauh manakah komputer digunakan dalam pengajaran dan pembelajaran Bahasa Inggeris di sekolah-sekolah menengah dan juga factor yang mempengaruhi guru semasa menggunakan komputer dalam proses pengajaran dan pembelajaran. Kajian ini melibatkan 100 orang guru Bahasa Inggeris dari 14 buah sekolah menengah dari bahagian Kuching/Samarahan. Data kajian telah diperolehi melalui kaedah kaji selidik dan temuduga. 12 guru Bahasa Inggeris dari 14 buah sekolah telah dipilih secara rambang untuk mewakili kesemua 100 responden. 83% responden menggunakan Microsoft PowerPoint, 59% responden menggunakan Microsoft Word Processor untuk sebagai alat bantu pengajaran dan pembelajaran. Responden juga mendapati bahasa penggunaan computer dapat meransang dan menarik minat pelajar. Dapatan kajian juga mendapati bahawa 64% responden menggunakan computer dalam pengajaran dan pembelajaran mereka. 95% responden merasa yakin dalam mengintegrasikan penggunaan computer dalam pengajaran mereka. 100% responden mendapati bahawa penggunaan computer dalam pengajaran membawa kesan yang positif kepada pelajaran. Walaubagaimanapun, 95% responden menyatakan bahawa di sebalik keberkesanan computer dalam menarik perhatian pelajar, penggunaan komputer sebenarnya merumitkan. 86% responden menyatakan bahawa penggunaan computer dalam pengajaran dan pembelajaran amat menyusahkan apabila seorang guru itu kurang arif terhadap teknologi serta kurang mendapat latihan dan mendedahan.*

## ACKNOWLEDGEMENT

I would like to take this opportunity to express my deepest appreciation and thanks to the following people for their supports to the successful completion of this survey.

My deep appreciation goes to my supervisor, Mr Joseph Ramanair for his patience, guidance and constructive comments and invaluable help throughout the semester. Thank you so much.

The principals, senior assistants and teachers of schools involved. Thank you for granting me permission and cooperation to carry out my study in the schools.

To my children, Melanie and Jesseryl, who are always patient with my absence in their routine. To my family members, thank you for being such unfailing source of strength, encouragement, and motivation throughout the years of my course.

Last but not least, I am deeply grateful to my colleagues, ESL 3, especially Tang Siew Kit, Emily Engbee, Prisca Ugus, Paula Dickson for their support and guidance in completing this graduation project.

God Bless and thank you all.

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## LIST OF ABBREVIATIONS

1. CALL- Computer Assisted Language Learning
2. CLT - Communicative Language Teaching
3. DVD - Digital Versatile Disc
4. ESL - English as a Second Language
5. ICT - Information and Communication Technology
6. IT - Information Technology
7. LCD - Liquid Crystal Display
8. MOE - Ministry of Education
9. PPSMI- Pelaksanaan Pengajaran Sains dan Matematik dalam Bahasa  
Inggeris
10. WWW- World Wide Web

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.0 Chapter Overview**

This chapter will discuss the background of the study, problem statements, objectives of the study, the research questions, operational definition of terms, significant of the study and scope of study. It is to investigate the integration of technology in teaching and learning in the language classrooms where it sees teaching and learning as an interactive process between teachers and students. Only then teaching and learning would be meaningful and purposeful.

### **1.1 Background of the study**

The integration of computers and technology into schools is an expensive and sometimes a complex process whereby schools need to be equip with technical support and competent teachers (Pelgrum and Law, 2003). Learning through Information and Communication Technology, which refers to the integration of ICT as an essential tool into a course or curriculum where teaching and learning take place. The curriculum attempts to provide teaching and learning approaches suitable for students' academic levels. In addition, ICT-

related projects involve the training of teachers, school administrators and other school staff. The rapid growth of Information and Communication Technology (ICT) and globalization have brought opportunities in education sector to implement the use of computers in the classroom. (Ministry of Education, 2006).

The Government has introduced various initiatives to facilitate the adoption and conciseness of ICT to improve capacities in education. In Malaysia, the importance of ICT in education system is one way to achieve 2001-2010 Education Development Plan, under the eighth Malaysian Plan. The Ministry of Education (MOE, 1997) aims to implement ICT in education in order to educate students to become computer literate, position ICT as a teaching and learning tool and increase the productivity of the management system. The use of computer as a medium of instruction and as a tool in students learning is very much emphasized by the Ministry of Education (1997). Therefore, the government has facilitated the integration of computers in primary and secondary school to improve the usefulness of the education received by students. In order to support the use of technology in education, the integration of ICT into classroom teaching has been made compulsory for all pre-service teachers since 1999. In addition, a large amount of money, RM5.2 billion has been invested by the Ministry to ensure the success of technology used in the classroom which aims to reduce the digital gap between the urban and rural areas. To date, 3,000 labs are operational, 300,000 teachers and 5 million students are being wired and unwired and 100,000 notebook computers are equipped to teachers to help them to cope with the change in education. To date The Curriculum Development Centre and Teacher Education Division has trained at least 55,000 teachers in the last few years (MOE, 2002).

According to Jonassen, Peck & Wilson (1999), “teachers need the technology to support meaningful learning that will enable learners to be engaged in active, constructive, intentional, authentic and cooperative learning”(p.7). Pea (2000) explains, “teachers need to be fluent and critical users of technology in order for them to provide relevant education and to prepare student to be lifelong learners in an information-based and interactive society” (p.34). Therefore, computer is considered as the most appropriate aid for teaching where interaction between teacher and learner is very much emphasized. In addition, computer has its capabilities for enhancing language teaching and learning.

## **1.2 Problem statement**

The integration of technology into teaching and learning through computers technology are said to be more efficient, save time and allows students as student-centered and independent learners where they would be able to learn at their own pace. However, the emergence of integrated technology in language classrooms is still overcome by the traditional methods. Davies (as cited in Leask and Meadow, 2000) says most “teachers are reluctant to integrate technology in their teaching for they are not interested, competent and professional enough to practice technology due to lack of training and awareness, insufficient time for learning and planning(p.256).” Some schools do not have sufficient infrastructure such as computer equipment with ratio 1:6, computer lab or internet access to enable teacher to integrate the technology in their teaching and learning (Leask and Meadow, 2000).

As mentioned by Pelgrum & Law (2003), the support from “administrators play a major role in motivating teachers and students in integrating technology in language teaching and learning”, (p.51). In addition, the integration of technology in teaching and learning increases students’ commitment to learn and teachers are more enthusiastic about using computers in their lesson, (Cox and Abbott as cited in Webb, 2005).

There are teachers out there who are using technology in their teaching and learning but due to lack of accommodation and facilities, they have to limit the use of technology in their language classrooms. Nevertheless, there are teachers who have undergone training, provided with all the equipment but are reluctant or hesitate to integrate technology into their teaching and learning due lack of confidence or competency in using computers or perhaps they do not enough support from their school management (Sandholtz, Ringstaff & Dwyer, 1997). Thus, the limitations mentioned prevent teachers to utilize technology in their teaching and learning whereby they could not integrate and co-operate technology in their teaching and learning which actually can enhance the learning process.

However, in the current education system, it is contrast to the vision and aim of Ministry of Education for systematic reinventions of teaching-learning which mainly to promotes student-centered, integrated and unified learning (MOE, 2003). The government are fully committed to reshaping the education system that will need a workforce skilled in ICT. Apart from that, the ministry have tried to help teachers to cope with the changes when most teachers failed to adapt themselves to the changes. Some teachers are reticent to use ICT because they not use to it and some do not know how to use it efficiently.

### **1.3 The objectives of the study**

Therefore this particular study intends to;

- (i) identify ways teachers integrate technology in their teaching and learning.
- (ii) investigate how computer technology has been integrated into the teaching and learning of language in the classroom
- (iii) identify factors that influence the integration of computer technology in teaching and learning

### **1.4 Research questions**

The research objectives are guided by the following questions;

1. What computer-based applications do teachers use in the language classroom?
2. How do teacher integrate computer technology-based tools in the teaching-learning of language skills in English lesson?

### **1.5 Significance of study**

Teachers need to be provided with substantiated findings and rich pool of knowledge regarding ways teacher integrate technology in their lesson. Thus, this study would stand to benefit to promote and initiate teachers and educators to integrate technology in their teaching and learning and so that they could see the progress and development of how computer as tool in the curricula. The ever-growing demand for maintaining adequate and up-to-date ICT resources make it difficult for teachers to integrate ICT into their lessons. Teachers revealed that they had only attended one or two courses which related to he filed. Apart from that, computers are not sufficient for teachers to practice the skills practically. Most of trainings focused on the theory in using computer technologies rather than the practicality of using it in the teaching and learning

situation. As a result, the knowledge that the teachers have gained could not be applied in the teaching and learning process. Not all teachers have good command in using the technology. Many teachers do not have the basic knowledge in technology and they find it difficult to adapt to the changes. Those teachers who have experience in using ICT faced fewer problems but those who did not have the experience felt that they are not confident to use computer for their teaching and learning process. Many teachers felt that their experience of in-service had increased their technical skills but they still needed support to develop their potential ability to exploit the full potential of ICT in relation to the curriculum (Harrison, 2005). Slowly these teachers will move themselves along the continuum from a novice IT users in the classroom to a good user. Teachers who are not integrating technology in their teaching and learning should not fear that the technology will take over their teaching as they play a major role to develop their lesson planning and technology skills. Therefore, teachers who are not using technology will get benefits and ideas from those teachers who are competence in ICT.

The emergence of technology courses suggests that teacher can learn about education technology through theory and practice through coursework. The professional competency of teachers is gauged not only by fluency and with contemporary technologies but also ways in which they use technologies both to advance their students' learning and add value to their professional practice. The reluctance of teachers in integrating technology in the teaching and learning may have cropped up due to their negative attitudes towards technology.

The study would therefore, provide some profits for teachers who have not embraced the changes in technology to influence their colleagues and students to change their roles and responsibilities. Teachers who integrate ICT will be able to find ways to integrate technologies to support their learners to

develop their higher order thinking skills and creativity thus make their lesson interesting with variety of activities. In other words, teachers need to be made aware that technology can help them in their teaching by organizing teaching and learning activity effectively to help learners to focus on the lesson.

## **1.6 Operational definitions of terms**

### **1.6.1 Information and Communication Technology**

ICT is the acronym for Information and Communication Technology. It refers to the storage, retrieval, manipulation, transmission or receipt of digital data, share or exchange information by electronic means (UNESCO, 2003).

According to Lever-Duffy *et al.* (2005), Information and communication Technology is viewed as a “robust set of instructional tool that will help individuals to accomplish the objectives of teaching-learning technology during the teaching and learning process”(p.7).

In this study, ICT refers to computer, lap-top, LCD (Liquid Crystal Display), projector, software and hardware used by educators that enable information gathering, management, access and communication which help teachers and students to access educational information readily.

### **1.6.2 Technology integration**

Pisapia 1994, (as cited in Williams (2000) defined integrated technology with “teaching means the use of language technologies to introduce, reinforce, supplement and extended skills” (p.12).

The integration of technologies resources in teaching and learning languages would be match to the content area in the current education system, for example, reading, writing, speaking, listening, research and information gathering; and problem solving and analysis (Robyler, 2004).

Therefore, in this study technology integration refers to ways teacher use computers in their teaching and learning to enhance the students' interest. Teacher uses technology to provide support for key points during lesson and for supplement traditional teaching methods. The integration of technology will be used as a tool to support learners' needs and abilities.

### 1.6.3 Computer

According to Underwood and Underwood (1990), "computers can be successfully integrated into classroom to demonstrate some of the opportunities offered by educational innovation" (p.vii). Computers have been used in education for the computer-based instruction such as drill and practice where it can increase the speed or accuracy of student performance of certain tasks (Gesisert and Futrell, 1995).

As mentioned by Simonson and Thompson (1990), the computer is a "powerful tool for teacher as an integral part of teaching and learning process" (p.9). A computer can facilitate teachers' effort to provide learning tasks that suit learner interests and needs by presenting new or different challenges via simulations, games, problem-solving and appropriate software.

In this study, computer refers to tool used by teachers and students to practice their skills. The computer provide word processing packages, presentation, spreadsheets, data bases, desk top publishing, CD-ROMS, searching and gather information from the internet. By using computers,

teachers will be able to provide a stimulus, focus for learning and tools to support learners apart from engaging students to use their higher order thinking skills to provide useful and varied learning and teaching opportunities.

#### 1.6.4 Language classroom

Languages such as Bahasa Melayu, Tamil, Mandarin, Iban, Kadazan etc. where students are proficient speakers of their mother tongue or first language (L1).use in education and it is the medium of instruction for other subjects Malaysian school (Chitravelu, Sithamparam & Choon, 2005, p.3).

In this study, languages classroom refers to the English and Bahasa Melayu lessons taught in the classroom. English is the second language while Bahasa Melayu is the first language for Malaysian government secondary schools.

### **1.7 Scope of the study**

This study will investigate the use of computer technology in teaching and learning of language in the classrooms. It will identify ways and reasons secondary school English teachers integrate technology in their language teaching and learning. Two instruments, which will be questionnaire and interview will be used for data collection.

## **1.8 Chapter Review**

This chapter has covered the background of the study, problem statement, the objectives of the study, research questions, operational definitions of terms, significance of study and scope of the study.

The next chapter will present chapter overview, the smart school, key issues in technology integration, ICT in education, language learning-teaching, ICT and languages skills, teachers' role in technology and review of previous studies.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Chapter Overview**

This chapter will be looking at issues concerning computer technology and integration made by researchers regarding technology in education. Learning languages through technology offers a broad survey of how language learning takes place with and through computer technologies. Integrating technologies into language pedagogy has become reality even as students around the world increasingly need both English and technology for their future careers in the workforce, (Shetzer and Waschauer 2000; Thatcher 2005).

#### **2.1 The Smart School**

Malaysia has a long-term vision referred to as “Vision 2020” which calls for sustained, productivity-driven growth, which will be achieved only with a technology literate, critically thinking workforce to participate in global economy of the 21<sup>st</sup> century (Ministry of Education, 1997).

The Government has introduced various initiatives to facilitate the adoption and diffusion of ICT to improve capacities in education. In Malaysia, the importance of ICT in education system is one of the ways to achieve 2001-2010 Education Development Plan, under the eighth Malaysian Plan. The Ministry of Education (MOE, 1997) aim to implement ICT in education in order to educate students to become computer literate, position ICT as a teaching and learning tool and increase the productivity of the management system. Our former Prime Minister, Dr Mahathir Mohammad stressed the importance of ICT in 1991. Therefore, the government has facilitated the integration of computers in primary and secondary school to improve the usefulness of the education received by students.