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THE USAGE OF INTERNET AS A TEACHING TOOL

BY

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ABSTRACT

The study aimed to determine the perception of secondary school teachers on the use of Internet as a teaching tool in the classroom. It also aimed to determine the factors influencing the use of Internet as a teaching tool. In addition it attempted to measure the influence of independent variables namely training, subject's taught, academic qualifications, frequency of Internet usage, number of computers in the school and duration of the Internet usage on the dependent variables of perceptions of the usage of Internet as a teaching tool. This study involved 111 teachers from four smart schools in Negeri Sembilan. The data were derived from questionnaire-based survey conducted among the sampling group in the classroom. The data was analyzed using the Statistical Package for the Social Sciences (SPSS) version 10.0. The findings revealed that training received by the teachers and the number of computers in the school have little and negative impact on the perception of the teachers on the use of Internet as a teaching tool. (β= -0.061, $p<0.05$ and β= 0.029, $p<0.05$). The subject's taught and academic qualifications have a moderate impact on the teachers' perceptions. (β=0.114, $p<0:50$ and β=0.086, $p<0.50$) The study also found that duration and the frequency of the Internet usage have a significant impact (β=0.199, $p<0.05$ and β= 0.230,$p<0.05$) on the teachers' perception on the usage of Internet as a teaching tool. The mean scores of the independent variable showed that knowledge biases to be the dominant and driving factor for the teachers' to use the Internet as a teaching tool. These empirical findings were also consistent with the open-ended question from the respondents.

PENGGUNAAN INTERNET SEBAGAI ALAT BANTU MENGAJAR

ABSTRAK

Kajian ini bertujuan mengenalpasti persepsi guru-guru sekolah menengah tentang penggunaan Internet sebagai alat bantu mengajar. Ia juga bertujuan untuk melihat faktor-faktor yang mempengaruhi penggunaan Internet sebagai alat bantu mengajar. Selain itu, kesan beberapa pembolehubah seperti latihan yang diterima oleh guru-guru, mata pelajaran yang diajar, kelayakan akademik guru, kekerapan menggunakan Internet, bilangan komputer yang terdapat di sekolah dan tempoh masa yang digunakan untuk melayari Internet terhadap persepi guru-guru juga dikenalpasti. Kajian ini melibatkan seramai 111 orang guru-guru dari 4 buah sekolah bestari di Negeri Sembilan. Kaedah survey soal selidik digunakan dan data dianalisis dengan menggunakan perisian SPSS versi 10.0. Hasil kajian mendapati faktor latihan yang diterima oleh guru dan bilangan komputer yang terdapat di sekolah mempunyai kesan yang sedikit terhadap persepsi guru-guru terhadap penggunaan Internet sebagai alat bantu mengajar (nilai β= -0.061, $p<0.05$ dan β= 0.029, $p<0.05$) Manakala faktor matapelajaran yang diajar dan kelayakan akademik guru mempunyai kesan yang sederhana terhadap persepsi guru-guru (nilai β=0.114, $p<0.50$ dan nilai β=0.086, $p<0.50$). Faktor kekerapan menggunakan Internet dan tempoh masa yang digunakan untuk Internet didapati mempunyai kesan yang signifikan dengan persepsi guru-guru (nilai β=0.199, $p<0.05$ dan nilai β= 0.230,$p<0.05$). Skor min daripada pembolehubah bebas pula mendapati keinginan untuk mendapatkan ilmu pengetahuan merupakan faktor dominan yang menggerakkan guru untuk menggunakan Internet. Dapatan kajian empiral ini konsisten dengan maklum balas guru-guru yang diberikan di dalam item soalan terbuka.

APPROVAL PAGE

TITLE OF PROJECT PAPER: THE USAGE OF INTERNET AS A TEACHING TOOL

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DECLARATION

I hereby declare that this project paper is the result of my own investigations, except where otherwise stated. Other sources are acknowledged by reference notes and a bibliography is appended.

Date : 17.11.2000 Signature : R Shasitharan

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Dedicated to

my parents and sisters

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TABLE OF CONTENTS

Abstract		ii
Abstrak		iii
Approval Page		iv
Declaration		v
Copyright		vi
Dedication		vii
Acknowledgement		viii
Table of Contents		x
List of Tables		xiii
List of Figures		xiv
CHAPTER ONE	INTRODUCTION	
1.0	Introduction	1
1.1	Overview of the Research	2
1.2	Purpose of the Study	4
1.3	Scope of the Problem	5
1.4	Statement of the Problem	6
1.5	Hypothesis of the Study	8
1.6	Significance of the Study	10
1.7	Limitations of the Study	11
1.8	Theoretical Framework	11
1.9	Definition of terms	12
1.10	Outline of the Contents	14
CHAPTER TWO	LITERATURE REVIEW	
2.0	Historical Background of Internet	16
2.1	The Usage of Internet in Education	17
2.2	World Wide Web (WWW) as a tool in Education	21
2.3	Smart School	25
2.4	Multimedia Super Coridor(MSC) and Education	28

2.5	Attitudes towards use of Internet in Education.	29
2.6	Limitations on Internet tools and World Wide Web in Education	32
2.7	Conclusion	34

CHAPTER THREE METHODOLOGY

3.0	Introduction	36
3.1	Population	36
3.2	Sampling	37
3.3	Survey Plan	37
3.4	Survey Instrument	39
3.5	The Use of Open Ended Question	42
3.6	Survey Strategy	43
3.7	Data Analysis Procedure	44
3.8	Summary of the Methodology	46

CHAPTER FOUR FINDINGS AND DISCUSSIONS

4.0	Introduction	47
4.1	Respondent Characteristics	47
4.2	Descriptive Statistics for Teachers' Perception on the Usage of Internet as an Educational Tool for the Whole Sample	58
4.3	Descriptive Statistics of Internet Usage as a teaching tool according to Gender	61
4.4	T-test Analysis on Male and Female Teachers' Response	65
4.5	Analysis of Hypothesis	65
4.6	Open Ended Question	75

CHAPTER FIVE CONCLUSIONS AND IMPLICATIONS

5.0	Introduction	77
5.1	Discussion of Major Findings	77
5.2	Implications and Recommendations	86
5.3	Suggestion for Future Research	89

References 90

Appendix A: Instrument used in the study 95

Appendix B: Letter of Approval from Educational Planning and Research Division, Ministry of Education Malaysia 102

Appendix C: Letter of Approval from Negeri Sembilan Education Department 104

LIST OF TABLES

		Page
Table 3.1	Names of Schools Involved in this Study	31
Table 3.2	Summary of Hypotheses and Hypothesis Testing Method	46
Table 4.10	Mean Scores of Teachers Perception on the use of the Internet as a Teaching Tool of the Whole Sample	59
Table 4.11	Mean Scores and Rank Order of 16 major use of the Internet By Gender	62
Table 4.13	T-test on Male and Female Teachers' Response	66
Table 4.14	Regression on the Perception of the teachers on the use of Internet and training attended	68
Table 4.15	Regression on the Perception of the teachers on the use of Internet and Subjects Taught	69
Table 4.16	Regression on the Perception of the teachers on the use of Internet and Academic Qualification	70
Table 4.17	Regression on the Perception of the teachers on the use of Internet and Frequency of Internet Usage	71
Table 4.18	Regression on the Perception of the teachers on the use of Internet and Number of Computers in school	72
Table 4.19	Regression on the Perception of the teachers on the use of Internet and Duration of the Internet Use	73
Table 4.20	Summary of the Results of Hypothesis Analysis(n=111)	74
Table 4.21	Respondents suggestions	75

LIST OF FIGURES

		Page
Figure 1	Theoretical Framework of the Study	12
Figure 4.1	Distribution of Respondents on the Teaching Subjects	49
Figure 4.2	Distributions of Respondents by Gender	50
Figure 4.3	Comparisons on Academic Qualifications	51
Figure 4.4	Teaching Experiences of Respondents	52
Figure 4.5	Use of Internet	53
Figure 4.6	Places of Internet Access	54
Figure 4.7	Frequent of the Internet Use	55
Figure 4.8	Use of the Internet in the classroom	56
Figure 4.9	Training Attended	57
Figure 4.12	Ranking of Mean Scores By Gender	64

CHAPTER 1

INTRODUCTION

1.0 Introduction

The world of education has expanded to a new dimension that has created new interest to the students as well as teachers. Vast changes have taken place since the introduction of the Internet in education. The education industry has seen the potential of using the common interface of the World Wide Web. McNurlin and Sprague(1998) contended that information technology is slowly changing the foundation of the ways work done in the past. Thus, it cannot be denied that Internet and World Wide Web have become a catalyst to enhance teaching and learning in the classroom.

Lustick(1998) has highlighted examples of how Internet brings benefits through various web sites. According to him, students improve their critical thinking skills through the creation of the chemistry resource web page. Summers (1996) added that the introduction of Internet in education has changed the classroom environment by looking at students response to assignments given in classroom that use the Internet as an educational tool. Therefore, there are many ways in which Internet has been put to good use in the classroom. In terms

of educational resources, it seems that almost everything is on the Internet- library catalogs, periodical indexes, research papers, electronic journals, newspaper articles, government statistics and also dissertation. Besides these many education institutions also can be found online. Search engines like Altavista, Google, Northern Light, Yahoo and Magellan have provided users a means to catch the fastest and easiest way to information.

Although the Internet has engendered much enthusiasm among its users, many have still not incorporated it into the classroom. Felt and Symans(2000) added that the usage of Internet in the classroom provides numerous invaluable resources and current content although students are exposed to biased and unreviewed content.

1.1 Overview of the Research

The Internet is a global computer network that can be used by people across the globe to access vast amounts of information and expertise. The growing role of the Internet as the main communication and information delivery vehicle has created a new learning era. Internet resources have become a key support mechanism in education. There are many online resources that can be utilized to support the teaching and learning process in the classroom. According to Gokhale

(1995), online resources allow students to ' engage in sustained inquiry activities, formulate authentic meaningful questions, plan tasks, predict outcomes, argue, evaluate and collaborate' in the learning process. Reissman(1999) noted that Internet also challenged the students to dig into the details of service learning and volunteer work.

While many people appear to believe that the Internet has already become the information highway for learning, it is still not clear whether this transformation has occurred. Meanwhile the benefits of Internet are vast and expanding. The Internet adds value to learning in terms of rapid access of information. With the intention to build a technological based education in Malaysia, Internet has become one of the main tools to achieve this aim.

It cannot be denied that the Internet provides rapid access to resources, which are not available locally. It is no small wonder that an individual can sit at home and use a Web browser such as Netscape, Mosaic and Microsoft Explorer to explore a vast array of resources. Besides that, the Internet provides an electronic vehicle for individuals or students to collaborate through discussion groups such as list serv to make decisions learn and share knowledge.

While the nation is moving towards achieving the best for education, the use of Internet in education is not exceptional. Teachers are the viable and dependable sources to transform these technological advancement to students. Various studies have shown that there is a lack in the usage of Internet among educators. Ghafar(1998) in his study revealed that usage of the Internet among school teachers is still at the early stage. Within Malaysian context, it is important to understand that these shortcomings are emphasized as education in Malaysia is moving a head towards achieving Vision 2020.

1.2 Purpose of the study

The principal objectives of this research are to determine whether a new learning environment has emerged on the use of Internet among secondary school teachers in Malaysian schools. If such environment had emerged then the research aims are to:

a. Provide an overview of teachers perception on the usage of Internet as a teaching tool
b. Provide an ethnographical analysis of this learning environment
c. Discover how much use teachers make of the Internet

d. Determine what the Internet is used for and how useful this is to students (typical usage includes discussions through e-mail, assignment, instructional surfing, project work etc)

e. Discover teachers opinion on whether they felt that training should be conducted on the Internet as a teaching tool, as there is increasing pressure on educational establishment to provide technological based learning process environment (this latter is seen to be particular important with the growth of home computing and links to the Internet).

1.3 Scope of the Problem

It is well known that the usage of Internet should provide flexibility, speed and accuracy, in terms of information and resources. It should also enhances effectiveness and efficiency in teaching and learning. With so many activities and programs focused on schools, it appears that public expectations on teachers to use Internet as a teaching tool has increased. Jefferies and Fiaz(1998) contended that teachers and students need to perceive an " added value" to using the Internet as opposed to other resources for course related work and not simply see the Internet in terms of leisure activities.

This emphasis on the technological advancement, it has kindled the researcher's interest to investigate the perception of the usage of Internet as a teaching tool in the classroom. More specifically, this study attempts to answer the following research questions:

1. How frequent is the usage of Internet as a teaching tool in the classroom?
2. Has there been any training conducted on the usage of Internet as a teaching tool?
3. What is the perception of the secondary school teachers on Internet as an educational tool?
4. What are the factors influencing the perception of the teachers on the usage of Internet a s a teaching tool?

1.4 Statement of the Problem

The usage of the Internet to support teaching and learning is growing exponentially as more and more educational organization are recognizing the potential that it offers. In the field of education, Internet is considered a `magic tool' that can create the collaborative learning environment. Through the Internet, new learning environment can be developed that are mostly based on the principles of action learning. Jefferies and Fiaz (1998) view the principle of action learning

in Internet as suitable for the learner because the learner is responsible for his own learning process.

Another study by Koo (1999) pointed out that unlimited sources of information from Internet make learners become active agents in the process of learning and not passive recipients of knowledge from others. Therefore, there is comfort in knowing that Internet create not only information explosions in education but also generate critical thinking among the learners. Thus, it is the responsibility of teachers to upgrade their knowledge in the usage of Internet.

As the functions of Internet are becoming important, it is necessary to obtained the view of the teachers on the usage of Internet in the classroom. Perception of the teachers on the usage of Internet as a teaching tool is important, as they are the people who are going to determine the success of New Informative Society. Indeed, the process of perception is especially essential in the field of education.

1.5 Hypothesis of the study

The researcher has developed several hypotheses based on the problem statement and research questions. Hypothesis is an important element in guiding the researcher in determining the appropriate

methods to be used in the study so that the result obtained would be valid.

The present study is undertaken with the following hypothesis in mind:

Hypothesis 1

The first issue is to see whether the teachers' perception on the use of Internet as a teaching tool depends on training they received. Therefore, the hypothesis is as follows:

Ho1 : Teachers' perception on the usage of Internet as a teaching tool does not depend on the training they receive.

Hypothesis 2

The second issue is to see whether teachers' perception on the use of Internet as a teaching tool depends on the subjects taught in the school. The hypothesis is :

Ho2 : Teachers' perception on the usage of Internet as a teaching tool does not depend on the subjects taught in school.

Hypothesis 3

The third issue is to see whether teachers' perception on the use of Internet as a teaching tool depends on their qualifications. The hypothesis is:

Ho3 : Teachers' perception on the use of Internet as a teaching tool does not depend on their qualification.

Hypothesis 4

The fourth issue is to see whether the teachers' perception on the use of Internet as a teaching tool depends on the frequency of the Internet usage. The hypothesis is :

Ho4 : Teachers' perception the usage of Internet as a teaching tool does not depend on the frequency of Internet usage.

Hypothesis 5

The fifth issue is to see whether the teachers' perception on the use of Internet as a teaching tool depends on the number of computers the school has. The hypothesis is:

Ho5 : Teachers' perception on the usage of Internet as a teaching tool does not depend on the number of computers that the school possesses.

Hypothesis 6

The sixth issue is to see whether the whether the teachers' perception on the use of Internet as a teaching tool depends on the duration of the usage of the Internet. The hypothesis is:

Ho6 : Teachers' perception on the usage of Internet does not depend on the duration of usage on Internet.

1.6 Significance of the Study

The finding of this result will enhance the researcher's knowledge on the usage of Internet as an educational teaching tool among teachers in the smart schools in Malaysia.

By presenting a discussion of strategies that can be employed to aid the Internet enculturation of new educators, the findings may assist Teacher Educational Division of the Ministry of Education and some other relevant divisions in the Ministry of Education to plan appropriate courses in Internet education for teachers. With the growing importance of Information Technology in our society, it is hoped that the findings of this study will also provide positive measures towards enhancing the usage of Internet in the classroom.

Study on this research also will enhance our knowledge of Internet in teaching and learning among educators. As the study of this area is still new in Malaysian educational context, this study attempts to enrich the knowledge in this field.