

Using English Language to Teach ICT Courses in Selected Malaysian Secondary Schools

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ABSTRACT

This study is aimed to investigate the situation of Information and Communications Technology (ICT) course taught in English language in secondary schools in Pahang, Malaysia. From a social point of view the study examines teachers' attitude towards and applications of computer to further reveal the chances of their use of English language in the classroom. The objective data is collected from school teachers by using questionnaires and interviews. The data analysis is conducted through T-test the statistic results show that a good master of computer skills, a good knowledge of English language, more vitally, a clear awareness of the importance from the perspective of teachers, facilitate the teaching of computers in English language in the classroom. Thus, it suggests that in order to successfully integrate computers in education, the education system needs to be changed or to be adjusted accordingly.

KEYWORDS: Information and Communications Technology (ICT), English language, teaching, curriculum.

1. INTRODUCTION

The impact of globalization and the rapid growth of Information and Communication Technology (ICT) have brought an opportunity in the teaching sector to implement the use of computers in the classroom. In Malaysia, the importance of Information and Communications Technology (ICT) in the education system has been realized as one way to achieve the 2001-2010 Education Development Plan. The aim of the Ministry of Education (MOE) to implement Information and Communications Technology (ICT) in education is to educate students to become computer literate citizens, and to position Information and Communications Technology (ICT) as a teaching and learning tool, and to increase the productivity, efficiency and effectiveness of the management system (Malaysia, 2000). The importance of Information and Communications Technology (ICT) was stressed by the former Prime Minister, TunDr Mahathir Mohamad in 1991, that for the country to be developed it is important for citizens to be technologically informed. Therefore, the government has facilitated the integration of

computers in school education (primary and secondary) in order to improve the usefulness of the education received by the students on a personal and a national level. The Ministry has invested a large amount of money to ensure the success of technology use in the classroom.

Many schools in Malaysia are well equipped with computers like desktop and laptops to encourage students to take up computers studies. The government has even subsidized certain schools with computer labs to facilitate the computer studies to the young. However, due to lack of trained personnel many schools have failed to subscribe to achieve its objective. This is due to teachers who are given to teach the computer education in schools is not with the right option to teach.

That teacher teaching computer studies have not acquired the right approaches to teach. This proves that the students lacking sufficient knowledge in the right direction to advance in this technology. Another factor affecting the computer study is misuse of computers and lacking knowledge on hardware and software which resulted leaving the computers idle. Subsequently the computers are found to be damaged after a period of time.

There are teachers who do not want the uncertainties that go hand-in-hand with implementing computer technology in their classrooms. Many of the teachers question is whether students do well with computer technology in traditional methods (Gningue, 2003). After doing the research in this topic, it is evident that teachers need to be trained in the areas of materials, methodology, and how they should be utilized for this purpose. The question for educators is how best to employ computer technology in education.

The information technology for the purpose of communication has brought rapid changes in the world. The teaching of Information and Communications Technology (ICT) is therefore significant in its implementation to achieve its development plans in Malaysia. The University of Education implements the Information and Communications Technology (ICT) to further enhance its objectives so as to educate the citizens Information and Communications Technology (ICT) literate. This can improve the productivity in the management system to improve the quality of education in Malaysia.

Basing on the current situation at school levels, many students lack sufficient Information and Communications Technology (ICT) knowledge to work on their own to surf to gain valuable information technology. The systems in today's world on the use of Information and Communications Technology (ICT) need more emphasis on latest technologies and thereby emphasis on teaching at schools levels by having Information and Communications Technology (ICT) labs is paramount importance. To generate good and useful citizens of a country, it is vital that the teachers with right mental attitude to be appointed to teach this useful studies of today to the upcoming leaders of tomorrow.

The purpose of conducting this study is to investigate and to understand how computers are integrated in the classroom by looking at the types of activities carried out by teachers and students. It is important to know how the teachers integrate Information and Communications

Technology (ICT) use in class when the teaching is restricted to the syllabus of the school curriculum it can correct the knowledge of students. It can spark the interest in students seeking for knowledge. In order to understand the Information and Communications Technology (ICT) -based teaching environment better, the roles teachers is constructing the language activities.

2. Literature Review

Advancement in computer technology, coupled with the pervasive use of Information and Communications Technology (ICT) in every facet of life, has made computer technology an important feature of the educational landscape, particularly in the developed countries (Law et al, 2002). Information and Communications Technology (ICT) use in the implementation of standards-based school curriculum is being articulated in a wider context of educational reform as the acquisition of 21st century, i.e. Information and Communications Technology (ICT) skills and lifelong learning abilities (Law et al, 2002).

An important portion of the literature concerning the use of the internet in educational settings shows that the worth of this technology is undeniable, “along with word processing, the internet may be the most valuable of the many computer technologies available to teachers and students” (Becker, 2000). The literature regarding its overall employment revealed that it helps students to think better with analytical mind by getting access for more information, thus improves thinking skills. It also enhances the inter collaboration through improving communicative skills. But it would be dangerous if the challenges of this computer world are not used effectively to understand and to implement the learning process and computers (Shiveley and Van Fossen, 2005).

Despite the increased availability of computers and support for classroom use (Becker, 2000) it is dubious whether teachers are prepared to use them educational purpose (Veltman, 2005). Millions of dollars being spent to upgrade technology in schools, progress needs to be made on its access and in increasing the computer skills of faculty (Alessi and Trollip, 1991).

There are few reasons believed to detrimental to the integration of computer technology in classroom education (Arhar et al, 2000): 1) There is resistance from educators to change for an upgrade of system; 2) Insufficient technology in service impedes the progress; 3) Mantel attitudes of teachers have not changed to cope up the changes under new environment; 4) Training and in service training to upgrade the knowledge is still lacking in implementation of effective teaching; 5) The time added to teach this technology in classroom is far below than expected; 6) Due to its weak policies in implementation, nothing has been strived to increase the expertise in this field and thus the technology unable to improve much; 7) The coot is another key factor which is affecting the technology in classroom teaching. Prospective teachers must take advantage of relevant resources to optimize teaching for all students and technology can be an especially constructive means (Arhar et al, 2000).

According to them, in order to successfully overcome those problems mentioned above, it is common to reform documents by requiring schools and teachers to: 1) Create lifelong learners;

2) support the development of higher-order cognitive skills; 3) foster creativity; 4) change teaching from a traditionally didactic to a student-centered process; 5) teach research and analysis; 6) better prepare students for the workplace; 7) make education more relevant; and 8) provide access to current research material.

3. Methodology

This study will adopt the qualitative methodological approach because the objective was not to generalise but to understand (Patton, 2002) how computers are being used in rural secondary schools of Pahang. Qualitative methods enable the researcher to conduct systematic data gathering and analysis. This takes into the consideration by the complexity of the setting under study as well as the context since it shapes the experiences of the informants (Patton, 2002).

In essence, qualitative research is a field of inquiry often designed as a multi-method approach that attempts to secure an in-depth understanding of a phenomenon from a relatively subjective but significant viewpoint due to the systematic process used in the generation and analysis of data (Bogdan and Biklen, 1998).

This study will be analyzed within the critical and social theory framework. First, it examined the background of teachers teaching there and how they joined the school. It is important to obtain historical information of the case in order to understand the context and origins of the informant perspectives. In this study (T-test) will be used for statistical analysis to find if there is any significant difference between the schools and teachers. T-Test used for statistic analyses gives an indication of the separateness of two sets of measurements, and is thus used to check whether two sets of measures are essentially different (and usually that an experimental effect has been demonstrated). The typical way of doing this is with the null hypothesis that means of the two sets of measures are equal. The t-test assumes a normal distribution (parametric data) and underlying variances are equal (if not, use Welch's test).

4. Results And Discussion

4.1 Descriptive Analysis

A total of 14 finalized questionnaires were sent to the selected schools, till the due time, 12 teachers from 10 schools participated in the survey, providing complete and suitable questionnaires, yielding an ineffective response (including non-response) rate of 14.3%. To ensure any possible bias (Paxson, 1995), a telephone survey for inefficient feedbacks was conducted find out their reason for not responding. The results show that one of them had no experience in ICT yet; the other one said she did not have time to fulfill it. It implies that the 12 respondents seem to be reasonable in the study. The demographic characteristics of all the effective responding samples are shown in Table 1.

Table 1 Frequency Analysis on the Demographic Characteristics of the Effective Respondents (n=12)

Items	Sub-items	Freq.	Valid (%)	Cum. (%)
Location	Outside Kuantan	6	50	50
	Inside Kuantan	6	50	100.0
	Total	12	100.0	
Working Experience	≤ 5 years	4	33.3	33.3
	5-≤10 years	3	25.0	58.3
	10-≤20 years	4	33.3	91.6
	>20 years	1	8.3	100.0
	Total	12	100.0	
Educational Level	Diploma	1	8.3	8.3
	Bachelor	10	83.3	91.6
	Master	1	8.3	100.0
	PhD.	0	0	100.0
	Total	12	100.0	

According to Table 4.1, half of the respondents are from the schools outside Kuantan while the other half are from the schools inside Kuantan. Regarding the working experience, nearly 60% of the practitioners have less than 10-year experience; only 8.3% have more than 20 years experience. Table 4.1 further indicates that 83.3% of the practitioners possess bachelor's degree and only 8.3% posse master's degree.

Generally, in Secondary schools outside Kuantan town, Information and Communications Technology (ICT) courses are offered to students in Grade 1, 2, 4 and 5. For Grade 1 and 2 students, Information and Communications Technology (ICT) is compulsory; while for Grade 4 and 5, Information and Communications Technology (ICT) is set elective. The stated reason is that they do not have enough suitable teachers to handle Information and Communications Technology (ICT) programs. The textbooks designated by Malaysia Government for Information and Communications Technology (ICT) course is written in English, but the lectures are delivered in BahasaMalayu. The explained reason is that the students cannot understand English well, and more seriously, some principles are not highly aware of the importance of Information and Communications Technology (ICT) course. Another discovered phenomenon is that the schools, although having two labs established, only use one or one and a half labs (i.e. three or four students share one computer at the same time), because the rest computers cannot function due to their shortage of money for repairing or changing. The worst case in this investigation is that one school has no computer lab yet. But the comforting point is they have interest to teach Information and Communications Technology (ICT) course by providing Information and Communications Technology (ICT) as elective.

Similarly, in Secondary schools inside Kuantan town, Information and Communications Technology (ICT) courses are offered to students in Grade 1, 2, 4 and 5. For Grade 1 and 2 students, Information and Communications Technology (ICT) is compulsory; while for Grade 4 and 5, Information and Communications Technology (ICT) is set elective. The stated reason is that they do not have enough suitable teachers to handle Information and Communications Technology (ICT) programs. The textbooks designated by Malaysia Government for Information and Communications Technology (ICT) course is written in English, and the lectures are delivered almost in English language, only when student cannot understand the terminology in English, the teacher translates it into Bahasa Malayu for explanation. About the labs, all schools have established two, but sometimes two or three students have to share one computer, not because some computers are unable to be used but because the quantity of the computers cannot meet the number of the students.

From all the questions in interview, there are several groups that can be obtained according to different topics. The grouping table is shown in Table 1 with results presented together.

4.2 Summary Of Questions And Answers On ICT

2. How do you teach kids to utilize higher-order thinking skills in your classroom?

Only 25% respondents mentioned about using Information and Communications Technology (ICT); 16.7% of them preferred "Change plan and teaching skills"; 33% referred to group discussion.

4. Do you make learning fun for students? How?

Only 16.7% took advantage of Information and Communications Technology (ICT).

14. How computer literate are you?

About 58.3 % graded themselves excellent or good; 25% humbly said moderate; the rest have little or no idea.

15. Do you think it is appropriate for children in school to be using the Internet?

66.7% thought it needs supervision; 83.3% agreed that internet is necessary.

16. What books are you currently reading?

About 58.3% respondents were reading Information and Communications Technology (ICT) related books currently with the ones from outside Kuantan more than inside Kuantan.

22. Name a book that you'd like to read to (or with) your students. Describe the book and tell why you chose it.

58.3% have intention to read Information and Communications Technology (ICT) related books.

30. How do you make sure you are teaching to the state standards?

Only 41.7% follow the guidelines or reference.

4.3 Summary Of Questions And Answers On English

20. What can you do to meet the needs of students who do not speak English?

Almost all respondents turned to BM for assistants. But the teachers inside Kuantan use English more often than outside Kuantan.

5. Analysis Of Variables Using Single Mean T-Tests

A series of the one-sample single mean t-tests were conducted to assess whether the mean levels of the variables are significant. Table 4.2 illustrates the derived mean levels using Single Mean T-Tests and Table 4.3 summarizes the outcomes of the single mean t-tests for the variables.

Based on Table 2, for question N0.8, the levels of all items are significantly high, except publisher and online discussion. It indicates that the knowledge of other Information and Communications Technology (ICT) subjects including word processor, spreadsheet, databases, power point, internet and email are, to some extent, well conveyed to the students. But as none of their means are higher than 4, those subjects are not totally completed, which means there are still spaces for improvement.

Table 2 Analysis of Mean Level Using Single Mean T-Tests (n=12)

Q8:	Test Value = 2								Results
	Mean	Std. Deviation	T	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference		P-Value	
						Lower	Upper		
Word processor	3.50	.798	6.514	.000	1.500	.99	2.01	.000	Significantly high.
Spreadsheet	3.18	1.079	3.634	.005	1.182	.46	1.91	.005	Significantly high.
database	3.22	.972	3.773	.005	1.222	.48	1.97	.005	Significantly high.
Power point	3.42	.669	7.340	.000	1.417	.99	1.84	.000	Significantly high.
publisher	2.80	1.033	2.449	.037	.800	.06	1.54	.037	Insignificantly high.
Reference from internet	3.27	.905	4.667	.001	1.273	.67	1.88	.001	Significantly high.
Submit via email	3.22	1.093	3.355	.010	1.222	.38	2.06	.010	Significantly high.
Online discussion	2.22	.972	.686	.512	.222	-.52	.97	.512	Insignificantly high.

For question No. 10, only the item “online communication with other teachers / students on school related matters” is insignificant. It suggests that teachers and students can share with each other through online communication to increase the usage of ICT, which in turn may enhance the ICT education in school.

Table 2 Analysis of Mean Level Using Single Mean T-Tests (n=12)

Test Value = 2									
Q10:	Mean	Std. Deviation	T	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference		P-Value	Results
						Lower	Upper		
a. Information /content retrieved on the internet for lessons.	3.25	.622	6.966	.000	1.250	.86	1.64	.000	Significantly high.
b. Information retrieved on the internet on research & best practices for teaching / learning.	3.00	.603	5.745	.000	1.000	.82	1.38	.000	Significantly high.
c. Information retrieved on the internet on model lesson plans.	3.17	.835	4.841	.001	1.167	.64	1.70	.001	Significantly high.
d. Information accessed on CD/ DVD	3.08	.793	4.733	.001	1.083	.58	1.59	.001	Significantly high.
e. Information created by you from research or other available data.	2.92	.515	6.167	.000	.917	.39	1.24	.000	Significantly high.
f. Online communication with other teachers / students on school related matters.	2.42	.669	2.159	.034	.417	.00	.84	.034	Insignificantly high.
g. Administrative record keeping (Students attendance, grades, etc.	3.25	.622	6.966	.000	1.250	.86	1.64	.000	Significantly high.
h. Classroom presentations (Power point/CDs / DVDs).	3.25	.754	5.745	.000	1.250	.77	1.73	.000	Significantly high.
i. Databases	2.83	.835	3.458	.005	.833	.30	1.36	.005	Significantly high.
j. spreadsheets	2.92	.793	4.005	.002	.917	.41	1.42	.002	Significantly high.
k. word processing	3.42	.669	7.340	.000	1.417	.99	1.84	.000	Significantly high.
l. Desktop publishing	2.58	.515	3.924	.002	.583	.26	.91	.002	Significantly high.

For question No.11, the levels of all items are significantly high; it indicates that the teachers are having a good awareness of the usefulness of the Information and Communications Technology (ICT), at least in the locations of computer lab, classroom, teachers' home, students' room, as well as community libraries.

Test Value = 2									
Q11	Mean	Std. Deviation	T	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference		P-Value	Results
						Lower	Upper		
a- in computer lab (a room with four or more computers) at the school.	3.67	.492	11.726	.000	1.667	1.35	1.98	.000	Significantly high.
b- in classrooms at the school.	2.67	.985	2.345	.039	.667	.04	1.29	.039	Significantly high.
c- at teachers home	3.58	.900	6.092	.000	1.583	1.01	2.16	.000	Significantly high.
d- at students home	3.50	.674	7.707	.000	1.500	1.07	1.93	.000	Significantly high.
e- in community resource centers of community libraries	3.58	.669	8.204	.000	1.583	1.16	2.01	.000	Significantly high.

6. Summary

Presents the findings from both interviews and questionnaires. For interviews, the obtained responses are presented in two sections: schools outside Kuantan town and schools inside Kuantan town. Then some findings are summarised and discussed by grouping the questions of interviews into different topics. Generally, most of the surveyed teachers are aware of the importance of Information and communications technology (ICT) and possess a good master of Information and communications technology (ICT) skills, but their applications of Information and communications technology (ICT) in school teaching are still in a low level. For questionnaires, the obtained data are analysed through Single Mean T-Tests, with results derived accordingly.

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