UNIVERSITI PUTRA MALAYSIA

THE EFFECTIVENESS OF THE COMPUTER TRAINING COURSES AS PERCEIVED BY THE TEACHERS IN ENHANCING THEIR COMPUTER SKILLS

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THE EFFECTIVENESS OF THE COMPUTER TRAINING COURSES AS PERCEIVED BY THE TEACHERS IN ENHANCING THEIR COMPUTER SKILLS

By

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March 1999

Chairperson: **Dr. Hjh. Asma Ahmad**

Faculty: **Eduactional Studies**

The purpose of the study was to describe the effectiveness of the computer training courses as perceived by the teachers in enhancing their computer skills. A set of questionnaires was administered to 80 primary and secondary teachers who have undergone the two weeks master trainer computer courses.

Data collected was analysed in three factors, namely, 1. Beginning Level of Computer Skills, 2. Advanced Level of Computer Skills, and 3. Training management. All the factors were analysed by using descriptive statistics in terms of frequencies, percentages, means, and standard deviations. *T*-test was also used in the data analysis as inferential statistics in determining the differences between the variables.

Findings revealed that teachers perceived the computer training courses to be relatively effective in enhancing their beginning level computer skills as compared to the advanced level. They also perceived some aspects of the training management to be rather unsatisfactory particularly in terms of frequency and the duration of the training.

The results of *t*-test indicate that teachers' perceived training effectiveness in enhancing their computer skills is significantly different in terms of gender, academic qualification, and computer experiences. The male teachers appeared to perceive more positive than the female teachers towards the training effectiveness in both skill enhancement and training management. Non-graduate teachers perceived more positive than the graduate teachers towards training effectiveness in the dimension of training management. While the more experienced teachers perceived the training was effective in the skill enhancement as compared to the less experienced teachers.

Hence, this study implies that serious efforts need to be taken to improve the specific level of the teachers' computer skills. Improvement should also need to be made to some aspects of the training management in the teachers' computer in-service training in order to achieve the successful implementation of the Smart School projects in line with the need of Vision 2020.

Abstrak kertas project dikemukakan kepada Jabatan Pendidikan Pengembangan, Fakulti Pengajian Pendidikan, Universiti Putra Malaysia sebagai memenuhi sebahagian keperluan untuk ijazah Master Sains dalam Pembangunan Sumber Manusia.

KEBERKESANAN KUSRSU LATIHAN COMPUTER MENGIKUT TANGGAPAN GURU-GURU DALAM MEMPERTINGKATKAN KEMAHIRAN-KEMAHIRAN KOMPUTER

Oleh

LIM SIEW GECK

Mac 1999

Pengerusi: Dr. Hjh. Asma Ahmad

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Kajian ini bertujuan menerangkan keberkesanan kursus latihan komputer mengikut tanggapan guru-guru dalam mempertingkatan kemahiran komputer mereka. Satu set soal selidik telah diedarkan kepada 80 orang guru sekolah rendah dan sekolah menengah yang telah mengikuti Kursus Komputer Jurulatih Utama selama dua minggu.

Data yang dikumpul dianalisis berdasarkan tiga faktor, iaitu, 1. Tahap Asas Kemahiran Komputer, 2. Tahap Lanjutan Kemahiran Komputer, dan 3. Pengurusan Latiahn. Kesemua faktor dinalisis dengan menggunakan statistik deskriptif dalam bentuk frekuensi, peratusan, min, dan sisihan lazim. Statistik inferens, Ujian-*t*, juga digunakan untuk menentukan perbezaan di antara pembolehubah.

Dapatan menunjukkan bahawa, guru-guru menganggap kursus latihan komputer yang dihadiri oleh mereka adalah lebih berkesan dari segi peningkatan kemahiran komputer di tahap asas berbanding dengan tahap lanjutan. Mereka juga menganggap bahawa terdapat beberapa asepk dalam pengurusan latihan kurang memuaskan, khususnya, dari segi kekerapan dan jangka masa latihan.

Keuputusan ujian-*t* menunjukkan terdapat perbezaan yang significant dalam perbandingan tanggapan guru terhadap keberkesanan kursus latihan komputer bagi meningkatkan kemahiran komputer dari segi jantina, kelulusan akademik, dan pengalaman komputer.

Guru-guru lelaki menganggap kursus latihan komputer memberi kesan positif dalam meningkatkan kemahiran-kemahiran komputer dan pengurusan latihan berbanding dengan guru-guru perempuan. Guru-guru bukan siswazah pula menganggap keberkesanan kursus latihan komputer adalah memuaskan dari segi pengurusan latihan jika dibandingkan dengan tanggapan guru-guru siswazah. Manakala guru-guru yang lebih berpengalaman menganggap kursus latihan komputer adalah berkesan dalam meningkatkan kemahiran-kemahiran komputer berbanding dengan tanggapan guru-guru yang kurang berpengalaman.

Justeru itu, kajian ini memberi implikasi bahawa usaha yang serius adalah diperlukan bagi mempertingkatkan kemahiran komputer seseorang guru dalam tahap-tahap tertentu. Beberapa aspek dalam pengurusan kursus latihan komputer dalam perkhidmatan perlu dipertingkatkan demi mencapai kejayaan pelaksanaan projek Sekolah Bestari sejajar dengan keperluan Wawasan 2020.

CHAPTER I

INTRODUCTION

The Problem and Its Context

The investment in people, both in developing and maintaining the appropriate skills, becomes a vital part of the organisation's strategy for the future. Although there may be fewer people employed in traditional manual and semi-skilled roles, the people who operate computers, and thereby control the activities of the business, create a new form of dependence. There is at the present time a shortage of people with these important skills and this in only likely to grow, unless there is a change in attitudes towards training and an increase in investment in people.

Effective training enhances the knowledge, skills, attitudes and behaviour of the people, and hence their performance (Bentley, 1990). Therefore, training has always played an important and an integral part in furthering many kinds of human learning and

development. However, the fact that training can make an important, if not crucial, contribution to organisational effectiveness is only now being recognised fully. Companies, organisations and government are beginning to appreciate the value of adequate, consistent and long-term investment in this function.

Rapid changes in technology and the jobs people do are one of the main reasons why training and development have become more important (Sheal, 1994). With accelerating changes in technology and work systems, many traditional industrial and clerical jobs have changed radically or become obsolete. New jobs have been created, particularly in the service and informational-based industries.

In some cases, people may have the skills and experience to do a specific job when they are recruited. As the work environment and the job change, employees are expected to update their skills. If they don't have opportunities for training, retraining and development, then, they and their skills can become `obsolete'.

In line with and in support of the nation's drive to fulfil Vision 2020 Malaysia intends to transform its educational system. This Vision calls for sustained, productivity-driven growth, which will be achievable only with a technologically literate, critically thinking work force prepared to participate fully in the global economy of the twenty-first century.

At the same time, Malaysia's National Philosophy of Education calls for "developing the potential of individuals in a holistic and integrated manner, so as to produce individuals who are intellectually, spiritually, emotionally, and physically balanced and harmonious." The catalyst for this massive transformation will be technology-supported "Smart Schools", which will improve how the educational system achieves the National Philosophy of Education, while fostering the development of a work force prepared to meet the challenges of the next century.

According to the "Smart School Conceptual Blueprint" (1997), the "Malaysia Smart School" is a learning institution that has been systematically reinvented in terms of teaching-learning practices and school management in order to prepare children for the Information Age.

In order to survive and to operate effectively, all types of organisation must adapt and respond in a timely and flexible way to technical, economic and social changes. This requirement has become imperative as we approach the twenty-first century and it implies that there are particular individual, group, organisational and institutional attitudes and perspectives needed by the nation's manpower. Computer training is one of the processes by which such needs can be realised.

Current situation in business, industries and institutions presents widespread use of technology, thus creating explosive demands of computer literate labour force. While some students can still succeed in their working environment without having any computer knowledge, it is getting more challenging and increasingly difficult to do so in the future.

The people who will be our future leaders are the students of today. Therefore, they must have the essential skills to survive in this technologically oriented society. For that reason, the educators' responsibility now is to impart computer skills to their students. However, educational research seem to point out that majority of teachers are still lacking in computer knowledge and how to use the computer effectively (Okinaka, 1992).

The much intended incorporation of Information Technology (IT) and multimedia into the education curriculum via school concept in Malaysia poses an urgent need to train present and future educators to become computer literate (Smart Schools Task Force, 1997).

As Malaysian education setting is geared towards the birth of "Smart Schools" by 1999, the Education Ministry should garner more of its effort to motivate teachers to become computer literate. Datuk Seri Najib Tun Razak, the Education Minister said that teachers now play a role as distributors of knowledge but under "Smart School" concept they will act as facilitators (Baharom, 1997).

Statement of Problem

Computers are fast becoming familiar tools in Malaysian schools. Whether they are employed for administrative purpose or as medium of instruction, they are undauntedly had the potential to change the nature of our educational process from teacher-centred to student-centred and supported by an open-ended curriculum.

As majority of teachers do not have basic computer knowledge in using computers, much less be able to integrate them in the classroom as teaching aids, serious effort must be taken to educate these teachers about the computers and its applications (Ehley, 1992). With numerous ongoing computer training programmes being conducted by the Malaysia Education Ministry and its agencies, it is imperative to have a good model of effective computer training programme for the teachers.

Furthermore, school by urgency, must prepare students for life in an information-based society through the implementation and integration of technology into school curriculum and support services. Schools are provided with microcomputer technologies at much faster rate than they can learn how to use them and millions of dollars are spent to provide teachers with necessary computer skills (Finkel, 1990).

Teachers as managers and facilitators will have to promote active students learning where it will be more individualised and meaningful (Dubenezic, 1993). Few ways to achieve this type of learning behaviour are through the use of electronic communication system and the use of computers as teaching tools. This change of role will certainly be a critical factor to consider in developing effective computer training programmes for teachers.

Full implementation of "Smart Schools" throughout Malaysia will require the training of about 450 000 teachers by the year 2010 (Smart School Task Force, 1997). Therefore, there is a pressing need to develop dynamic and extensive computer programmes for the teachers so as to mobilise the smooth transition to "Smart Schools".

As a result, teacher development will be critical to the success of the "Smart School". Teachers will need intensive training in the use of information technology and in its integration into classroom activities in ways that enhance thinking and creativity. "Smart School" teachers will also need to learn to facilitate and encourage students in

taking charge of their own learning. In the long term, these teachers will need to augment their skills regularly, if they are to stay abreast of developments in their profession and remain confident in their application of the technology.

If Malaysia is to operationalise its 85 schools as "Smart Schools" by January 1999 (Smart School Task Force, 1997), proper and much better pre and in-service training needs to be given priority (Hasselbring, 1991). Even though teachers' attitudes towards computer is increasing positively, high quality training is still limited in number (Lent, 1991). According to Okinaka (1992), "standards of such courses are not uniform". Different skills or competencies are emphasised for different training programmes and groups of teachers are often too heterogeneous in term of skill levels.

Furthermore, teachers are often sent off to a single mandated course, to a day or two workshops and then expected to know everything about computers. In Malaysian context, teachers are often sent to attend short courses, which emphasised different skills, and rarely are called again to attend further training. This problem is compounded if the teacher could not get access to a computer at school or at home to practice their newfound skills.

As such, it is clear that uniform and meaningful standards for developing computer training programmes should be established at federal and state levels as to carry out effective training for educators (Okinaka, 1992) and more accessibility to computers should be made possible for teachers (Ponte et al., 1986).

General Objective

The objective of the study was to describe the perceived effectiveness of computer training courses attended by the teachers in enhancing their computer skills.

Specific Objectives

The specific objectives of the study were to determine:

1. To describe the teachers' perceived effectiveness of the computer training courses they have attended in enhancing their computer skills in the beginning and advanced levels as well as in terms of the training management.

2. The difference between the male and female teachers' perceived effectiveness of computer training courses in enhancing their computer skills.
3. The difference between the graduate and non-graduate teachers' perceived effectiveness of computer training courses in enhancing their computer skills.
4. The difference between the more experienced and less experienced teachers'perceived effectiveness of computer training courses in enhancing their computer skills.
5. The difference between the male and female teachers' perceived effectiveness of computer training courses in terms of training management in enhancing their computer skills.
6. The difference between the graduate and non-graduate teachers' perceived effectiveness of computer training courses in terms of training management in enhancing their computer skills.
7. The difference between the more experienced and less experienced teachers' perceived effectiveness of computer training courses in terms of training management in enhancing their computer skills.

Significance of Study

This study would provide insights on how the teachers perceived the effectiveness of computer training since billions of ringgit had been spent and will be spent in upgrading teachers' computer skills. With the oncoming implementation of "Smart Schools" by 1999, definitely there will be more teachers who will have to be trained (Smart Schools Task Force, 1997). The question as to how effective these training are in enhancing teachers' computer skills is important.

A better understanding of the perceived effectiveness towards the current computer training by the teachers would help in formulating a more dynamic and effective computer training programmes for Malaysia teachers.

Finally, this study would also provide insights on the emphasis of the advanced level computer skills in the computer training programmes in order to catered the needs for the implementation of the 'Smart School' project.

Limitation

This study was intended to describe the perceived effectiveness of the computer training courses by the teachers in enhancing their computer skills. Therefore, the findings of this study were confined to the honesty of the subjects to express their perceived effectiveness of the computer training courses they had attended in enhancing their computer skill.

Besides that, the findings of this study were also confined to all secondary and primary school teachers in Wilayah Persekutuan Kuala Lumpur and Selangor who had undergone the computer training courses conducted by the Teachers Education Division in the Malaysian Ministry of Education.

Finally, the modified instrument was considered appropriate only for this study. The instrument measured the perceived effectiveness of the computer training courses by the teachers in enhancing their computer skills. The computer training courses confined to the two weeks "Master Trainer Computer Courses" conducted by the Teachers Education Division in the Malaysian Ministry of Education in 1997. As such, the findings of this study may not reflect the actual perceived effectiveness of all teachers who had undergone other computer training programmes.