COMPUTER LITERACY AND JOB PERFORMANCE AMONG ADMINISTRATIVE ASSISTANTS IN KUCHING NORTH CITY HALL (DBKU)

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DECLARATION

I declare that this thesis entitled "Computer Literacy and Job Performance among the Administrative Assistants in Kuching North City Hall (DBKU)" is my own work except for the literature reviews, of which I have cited the sources.

Chee Kin Siong

April, 2003

DEDICATION

To my parents, who will be proud of me.

To my beloved wife, Ai Hua for her patience and unfailing support.

To my two lovely children, Yiew Yiew and Phei Phei for providing daddy with unending laughter to relieve the stress of accomplishing this thesis.

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To all the administrative assistants of DBKU who have participated in this research as respondents, I wish to say a big "Thank you" for their co-operation.

Last but not least, I wish to thank my course mate, Mr. Basil Wee for helping me to administer the questionnaires.

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ABSTRACT

The purpose of this study was to describe the computer literacy and job performance levels of the administrative assistants in Kuching North City Hall (DBKU). This study also attempted to determine if there was a relationship between computer literacy and job performance. In addition, this study also investigate if there were differences in computer literacy and job performance levels based on the administrative assistants' age, number of computer courses attended, amount of computer experience and accessibility to office computers. The respondents of this study consisted of 55 administrative assistants in DBKU. This study used a questionnaire adapted from the Digital Literacy Self-Assessment (n.d.) and Job Performance questionnaire (Thang, 2001) to measure the computer literacy and job performance levels. The findings of this study showed that generally, the administrative assistants in DBKU had computer literacy above the intermediate level and high level of job performance. There was no significant relationship between computer literacy and job performance. This study also found significant differences in computer literacy level between administrative assistants based on age, number of computer courses attended, computer experience and accessibility to office computers. Younger administrative assistants were found to have higher computer literacy as compared to those were older. Administrative assistants who have attended more computer courses were found to have higher computer literacy than those who have never or have attended less computer courses. Administrative assistants who have more computer experience were found to have higher computer literacy than those who have less computer experience. Administrative assistants who had easy access to office computers were found to have higher computer literacy than those who have difficulty in accessing office computers. However, this study found that there were no significant differences in job performance based on age, number of computer courses attended, amount of computer experience and accessibility to office computers. It was concluded that it is important to ensure that the administrative assistants had access to computer courses and computer facilities to improve their computer literacy levels regardless of age. Although there was no significant relationship between job performance and computer literacy, and no significant difference in job performance based on computer experience, computer courses attended, and access to office computers, this did not imply that the organization should disregard providing computer training to the administrative assistants because this study did not investigate the types of tasks the administrative assistants had to perform. Performance on computer related tasks could have improved when these variables were given the appropriate attention. The organization should also look at the issue of job performance holistically taking into account factors such as employees' attitude, organizational culture, and work environment.

ABSTRAK

Tujuan utama kajian ini adalah untuk menghuraikan tahap literasi komputer dan prestasi kerja pembantu tadbir di Dewan Badaraya Kuching Utara (DBKU). Kajian ini juga bertujuan mengenalpasti sama ada terdapat perhubungan yang signifikan di antara literasi komputer dengan prestasi kerja. Selain daripada itu, kajian ini juga cuba menentukan sama ada terdapat perbezaan yang signifikan pada tahap literasi komputer dan tahap prestasi kerja berdasarkan umur, jumlah kursus computer yang pernah dihadiri, jumlah pengalaman komputer dan akses kepada komputer pejabat. Responden kajian ini terdiri daripada 55 orang pembantu tadbir di DBKU. Kajian ini menggunakan soal selidik yang diubahsuai daripada Digital Self-Assessment (n.d.) dan soal selidik Prestasi Kerja (Thang, 2001) untuk mengukur tahap literasi komputer dan prestasi kerja. Dapatan kajian ini menunjukkan bahawa pada umumnya, literasi computer pembantu tadbir di DBKU adalah melebihi tahap sederhana dan tahap prestasi kerja mereka adalah pada tahap tinggi. Tidak terdapat perhubungan yang signifikan di antara literasi komputer dengan prestasi kerja. Terdapat perbezaan yang signifikan dalam literasi komputer di antara pembantu tadbir berdasarkan umur, jumlah kursus komputer yang pernah dihadiri, jumlah pengalaman komputer dan akses kepada komputer pejabat. Pembantu tadbir yang lebih muda didapati mempunyai tahap literasi komputer yang lebih tinggi berbanding mereka yang lebih tua. Pembantu tadbir yang pernah menghadiri lebih banyak kursus komputer didapati mempunyai tahap literasi komputer yang lebih tinggi berbnding mereka yang tidak pernah atau kurang menhadiri kursus komputer. Pembantu tadbir yang mempunyai lebih banyak pengalaman menggunakan komputer mempunyai literasi komputer yang lebih tinggi berbanding mereka yang kurang berpenglaman. Pembantu tadbir yang mempunyai akses yang mudah kepada komputer di pejabat juga didapati mempunyai literasi komputer yang lebih tinggi berbanding mereka menghadapi masalah mencapai komputer pejabat. Walau bagaimanapun, kajian ini mendapati tidak wujud perbezaan yang signifikan dalam prestasi kerja berdasarkan umur, jumlah kursus komputer yang pernah hadiri, jumlah pengalaman komputer dan akses kepada komputer pejabat. Namun demikian, adalah mustahak untuk memastikan bahawa semua pembantu tadbir mempunyai akses kepada kursus dan kemudahan komputer demi meningkatkan tahap literasi komputer tanpa mengambil kira umur. Sungguhpun tidak ada perhubungan yang signifikan di antara prestasi kerja dengan literasi komputer, dan tidak ada perbezaan yang signifikan dalam prestasi kerja berdasarkan pengalaman komputer, kursus komputer pernah dihadiri, dan akses kepada komputer pejabat, ini tidak bermakna organisasi patut mengetepikan pemberian latihan komputer kepada pembantu tadbir kerana kajian ini tidak menyelidik jenis tugas yang perlu dilakukan oleh pembantu tadbir. Prestasi tugas-tugas yang mempunyai kaitan dengan penggunaan komputer mungkin meningkat apabila pembolehubah tersebut diberi perhatian yang sewajarnya. Organisasi juga patut melihat isu prestasi kerja secara menyeluruh dengan mengambil kira faktor-faktor lain seperti sikap pekerja, budaya organisasi, dan persekitaran kerja.

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CHAPTER ONE

INTRODUCTION

1.1 Background

The Malaysian government has embarked on an intensive effort to introduce the use of Information Communication Technologies (ICTs) in the civil service since 1997. The introduction of ICTs in the public sector is expected to simplify the complex and bureaucratic procedures usually associated with public sector. As the various ministries attempt to implement ICTs, the government officers need to keep up with the rapid changes in ICTs, and adopt a mind shift from the conventional method to a new way of thinking and doing things.

The responsibility for making the Electronic-Government (E-Government) function are the people who make up the civil service, from policy makers to executives down to its support staff (Mahathir Mohammad, 1998). The ICTs revolution demands that the workforce is continuously trained and equipped with new technical skills and adopt new approaches of working.

Kuching was given the status of city on 1 August 1998. Since then, the administration of Kuching City was divided into two authorities; Kuching North City Hall (DBKU) and the Kuching South City Council (MBKS). Kuching North City Hall (DBKU) is a corporate body which obtained authority from the Sarawak state government to serve the people of Kuching City with vision to provide the people of Kuching City a harmonious, peaceful and progressive city.

There are 1,003 employees in DBKU. Under the Malaysian Remuneration System (Sistem Saraan Malaysia), 27 of them are categorized in the Management and Professional Group and the rest are from the Support Group. The majority of the 1,003 employees are Malays, followed by Dayaks, Chinese and Indians.

DBKU is headed by the Mayor who is assisted by the Board of Advisory. It is a corporate body, which reports directly to the Chief Minister. The role and authority of DBKU is based on the Ordinance of Kuching City North. Some of the laws enforced by DBKU are The City of Kuching Ordinance, 1988; The City of Kuching North Ordinance, 1988; The Local Authorities Ordinance, 1996 and The Local Authorities Financial Regulations, 1997.

The Mayor is assisted by a director in his daily administrative work. The director is assisted by three assistance directors who head three departments; Operation Department, Technical Department and Administrative Department. There are twenty Divisions in DBKU, such as Environment and Health Division, Internal Audit Division, Human Resource Management Division, and Information and Communication Technology Division. A Head of Division leads each of these divisions.

1.2 Statement of the Problem

With the introduction of E-Government in the civil service the workforce had to be trained to be computer literate and acquire necessary technical know-how. DBKU has been organizing ICTs related training courses to enable its workforce to keep abreast

with the latest ICTs skills and knowledge. The core objective of these ICTs related training and education is to uplift the computer competency level and improves the job performance of its workforce (Mahathir Mohammad, 1998). The success of E-Government lays on the shoulders of the civil service workforce, including the administrative assistants who are responsible for information management, data management, filing office materials, account transactions, and other important clerical works. The administrative assistants must be well equipped with the appropriate computer skills and knowledge to perform their jobs. Do the administrative assistants in DBKU have the necessary computer competencies to implement E-Government? What are their current computer literacy levels? Do their computer literacy levels affect their job performance? What demographic factors (age, computer experience, number of computer courses attended and accessibility to office computers) affect their computer literacy and job performance levels?

1.3 Research Questions

Based on the problem statement, this study attempted to answer the following research questions:

a. What was the computer literacy level of the administrative assistants in BKU?
b. What was the job performance level of the administrative assistants in DBKU?
c. Was there a significant relationship between computer literacy and job performance?
d. Were there significant differences in computer literacy levels between the administrative assistants based on age, number of computer courses attended, amount of computer experience and accessibility to office computers?
e. Were there significant differences in job performance levels between the administrative assistants based on age, number of computer courses attended, amount of computer experience and accessibility to office computers?

1.4 Null Hypotheses

The following null hypotheses were formulated from the research questions:

H_{01} There was no significant relationship between computer literacy levels and job performance levels among the administrative assistants in DBKU.
H_{02} There was no significant difference in computer literacy levels between the administrative assistants from different age groups.
H_{03} There was no significant difference in computer literacy levels between the administrative assistants who had attended different number of computer courses.
H_{04} There was no significant difference in computer literacy levels between the administrative assistants who had different amount of computer experience.
H_{05} There was no significant difference in computer literacy levels between the administrative assistants who had easy access to office computers and those who had difficulty in accessing office computers.
H_{06} There was no significant difference in job performance levels between the administrative assistants from different age groups.
H_{07} There was no significant difference in job performance levels between the administrative assistants who had attended different number of computer courses.

H_{08} There was no significant difference in job performance levels between the administrative assistants who had different amount of computer experience.

H_{09} There was no significant difference in job performance levels between the administrative assistants who had easy access to office computers and those who had difficulty in accessing office computers.

1.5 Research Framework

Figure 1.1 shows the research framework for this study:

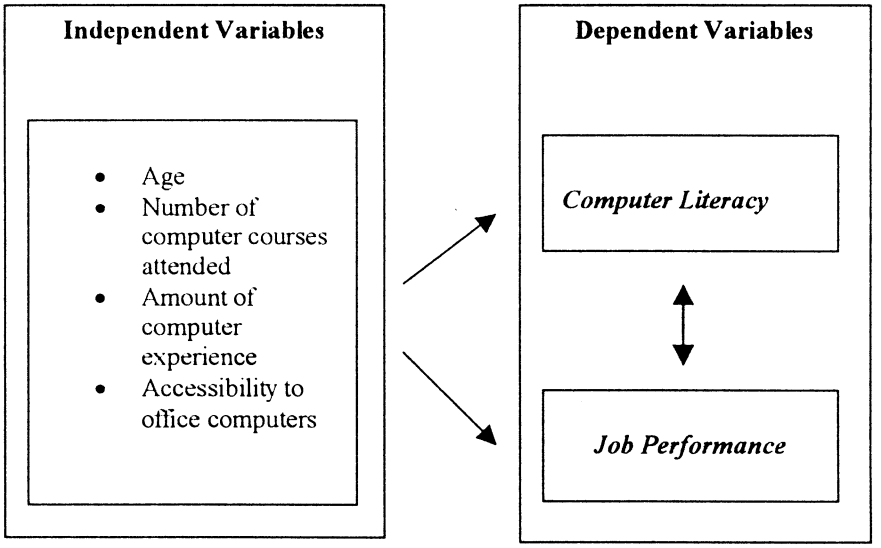

Figure 1.1 Research framework

1.6 Significance of the Study

This study focused on the field of ICTs in E-Government. ICTs is an essential component in the implementation of E-Government. Administrative assistants play an extremely dominant role in managing data, documents, file and communicating with other counterparts regarding their office work. Lack of computer knowledge and skills among the administrative assistants in the public sector can definitely impede the implementation of E-Government. To ensure the success of E-Government in DBKU, information about the administrative assistants' computer literacy and job performance levels and their relationship will be valuable for planning computer literacy courses and job performance development programs for the administrative assistants in DBKU.

A study on the relationship between computer literacy and job performance had not been carried out among the administrative assistants in DBKU before. Hence the findings of this study will provide valuable information for the organization. This study is also important for the other public sectors in Malaysia since most of researches of this nature were done by the private sectors in foreign countries.

1.7 Limitations of the Study

This study only focused on the relationship between computer literacy and job performance. There are other factors such as corporate culture, individual differences, mental ability, personality and other skills, which may influence an employee's job performance.

Any significant relationship or differences between variables obtained in this study could not be implied as causal relationships. Further studies using experimental design may be needed to establish any causal relationship.

This study was only conducted among administrative assistants in one public organization. As such, the findings of this study should not be generalized to all administrative assistants in the civil service.

1.8 Definition of Terms

For the purpose of this study, some important terms were defined as follows:

1.8.1 Computer Literacy

Computer literacy was defined as the respondents' self-perception of their level of knowledge about computers, skills and understanding regarding computers and the ability to manage files and use common computer software applications. The common computer software applications referred to the word processors (MS Word), spreadsheet (MS Excel), presentation (MS PowerPoint), database (MS Access), Web browser (MS Internet Explorer), and communication tool (e-mail).

1.8.2 Computer Literacy Levels

The self-perceived computer literacy levels were categorized based on the criteria proposed by the Digital Literacy Self-Assessment Questionnaire (n.d.):

None	: This individual has no understanding of the technology and appropriate training is required for developing technology competency.
Little	: This individual has a basic understanding of the technology, but could not perform the task successfully without assistance more training may be required.
Average	: This individual can perform the technology task, but struggles in some areas. Advance training for developing technology competency will improve performance.
Above Average	: This individual can perform the technology task repeatedly with great success, but has not mastered all the elements.
Master	: This individual has mastered the technology and can perform the task without any problems. This individual could mentor others.

1.8.3 Job Performance

Job performance in this study was defined as the respondents' self-perception of their performance levels in carrying out their tasks from the physical and attitude aspects. The physical aspects were opportunity of being assigned to responsibility, attendance, punctuality, managing responsibilities and job efficiency. The attitude aspect included obeying to order, on time, willingness to work overtime and initiative in doing the best.

1.8.4 Administrative Assistant

The administrative assistant in this study referred to the clerical/operational, secretariat, and finance support staff. The clerical/operational staff performed the clerical works such as filing or documents management, analyzing statistics, and preparation of monthly reports. The secretariat staff performed the tasks of taking shorthand, typing and managing file movements. The finance staff assisted the management staff in managing budgets, accounts, payrolls, loans and preparing financial reports. Under the Malaysian Remuneration System (Sistem Saraan Malaysia), the clerical/operational and secretariat support staff were categorized under the salary grade of N 17 (N 9). The finance staff were placed under Grade W 17 (W 8).

1.8.5 Amount of Computer Experience

Amount of computer experience referred to the number of years an individual had been using the computer software such as Word Processor (MS Words), Spread Sheet (MS Excel), Presentation (Power Point), Data Base (MS Access), Web Browser (MS Explorer) and Communication Tools (E-mail) on a regular basis.

1.8.6 Number of Computer Courses Attended

This was defined as the number of formal computer courses attended by the respondents. A formal computer course referred to any computer course, which was organized or sponsored by DBKU for its staff.

1.8.7 Accessibility to Office Computers

Accessibility to office computers referred to the respondents' level of ease to access the office computers for use in the office when they need to perform their work. The administrative assistants who were provided with a personal computer to carry out their daily work can access to the office computers easily. On the other hand, the administrative assistants who were not provided with a personal computer may face difficulty in accessing the office computers and were categorized as having difficulty in accessing the office computers.

1.8 Summary

This chapter introduced the background of this study, the statement of the problem, research questions, research hypotheses, research framework, significance of study, limitation of study and the definitions of some important terms used in this study. It formed the basis for understanding this study in the following chapters.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This section discusses the findings from past research pertaining to the computer literacy and job performance among workers. It starts with the introduction of E-Government and follows with the importance of computer literacy and job performance in E-Government and how are they measured. The discussions continue with the computer literacy and job performance levels of the administrative assistants based on the demographic differences. This section concludes with a discussion on the relationship between computer literacy and job performance and why knowledge of this relationship is important.

2.1 Computers and E-Government

The Malaysian E-Government is a multimedia networked paperless administration linking government agencies within Putrajaya with government centers around the country to facilitate an efficient service to the citizens. The vision of E-Government is one where government, business, and citizens work together for the benefit of the nation. The achievement of this vision calls for the application of information and communication technology to improve the productivity and increase service delivery channels of the civil service.

The objectives of E-Government are to reinvent the government to make it more efficient and effective and act as a catalyst for the realization of Vision 2020. In the E-Government implementation, one of the key commitments is using ICTs to meet the needs of citizens and businesses and not trailing behind on technological developments. The government has committed to ensure that all government services are deliverable electronically in years to come. This commitment is inextricably bound with the aim of improving service delivery to the public.

The E-Government is one of the most highlighted government projects to bring the nation into the digital age using ICTs (Mohammad & Balan, 1999). This ICT era requires workers who can think, create, calculate, and master the rudiments of computer applications. The office environment in this era is compelled to become more of an electronic office than ever before.

Afsaneh and Kleiner (1992) pointed out that the use of ICTs in offices would help ease the collection, storage, processing, retrieval and utilization of information on resources of all kinds. They added that the availability of computers would help shorten the time required to carry out a search, confirm availability of resources and get more information than if done manually.

In order to implement E-Government successfully, the Malaysian workforce needs to be ICT literate. Despite having a well-developed telecommunication infrastructure, Malaysia lacks knowledge workers. In a study of 49 countries, Malaysia was placed as 28th in computer literacy (Greenwald, 1997). This study showed that Malaysian workers were not ready to actively adopt ICTs in their daily works. In order to overcome this problem, many computer literacy courses were carried out to train the civil workers.

2.2 Computer Literacy

Research has indicated that there is no globally accepted definition of computer literacy. Different people hold different views about computer literacy. Since it was first introduced in the 1960's, the definition of computer literacy has dramatically changed (Yasin, Green, & Marwan., 1989; Dolgite, 1987).

Initially, the definition of computer literacy was based on the ability to write or read computer programs. Computer science professionals felt that to be computer literate, a person must be able to read and write computer programs in at least one of the common machine languages. Coburn, Kelman, Roberts, Synder, Watt, and Weimer (1985) defined a computer literate as one who could do computer programming using a language such as FORTRAN, BASIC, or COBOL.

However, some educationists were againsted this definition of computer literacy. People argued that a computer literate person merely needs to know how to use a computer and does not need to know about programming. Anderson, Klassen, Krohn, and Smith-Cunnien (1982) concurrently viewed computer literacy as whatever understandings, skills and attitudes one needs to function effectively within a given social role that directly involves computers. Simonson and Thompson (1990) defined a computer literate as having the competencies to understand the basic principles of the computers as a system and potential applications for computers, and have positive attitudes toward computer and its related technologies. Paprzycki, Mitchell and Duckett, (1994) defined computer literacy as having the ability to use a computer for practical purposes. Langhorne, Donham, Gross and Rehmke (1989) viewed computer literacy as having the ability to perform basic operations such as keying in data, printing, using a variety of applications such as word processing, spreadsheets, data bases graphics, desktop publishing, information storage and retrieval and computer-assisted instruction.

Furthermore, with the shift away from mainframe machines and towards the increased use of more user-friendly personal computers (PCs), the earlier definitions were increasingly deemed as inappropriate whereas the latter definition increasingly became the basis for the plethora of computer literacy definitions currently found in the literature (Collins & Anderson, 1984).

Given the various definitions of computer literacy in the literature, for the purpose of this study, computer literacy was defined as the acquisition of computer knowledge, skills and ability for its intelligent and efficient usage in one's task. It is the ability to use common computer software (such as Microsoft Word, Excel, Power Point, and Access) for practical task and the ability to use the Internet for purposes of communication (e-mailing) and obtaining information (Internet Explorer).

2.3 Job Performance

There are various views about job performance. In other words, the term job performance can mean different things to different people. Hiltrop and Despres (1994) defined job performance as the value added in an activity or task achieved by an individual at work. Job performance is the employee's level of achievement against the standard determined by the employer. It is also viewed as the contribution by the employees to the organization (Mobberg & Caldwell, 1988). According to Johns (1992), job performance is the degree to which the members of the organization contribute to reach the organizational objectives. Ivancevich and Matterson (1996) viewed job performance as a

function of the capacity to perform, the opportunity to perform and the willingness to perform.

Whereas Cheng and Kalleberg (1996) viewed job performance from the employer's perspective. Job performance can be measured against certain standard. In general, employers view job quality, job quantity, and time needed to accomplish a job as important factors in measuring job performance of their employees. Job performance is measured using performance appraisal for the purpose of improving employee's job performance in the future. Beside that, it also can be used for the purposes of promotion, reallocation and termination of employees (Tsui, 1998).

Fisher, Schoefeldt, and Shaw (1993) stated that one of the critical factors which contribute to an organization's long term success is its ability to appraise its employees' job performance effectively and to utilize the feedback or information collected from the appraisals to improve its existing weaknesses. They also found that the feedback from the appraisals could help the employees to understand their contribution towards the achievement of organization's goals. At the same time they also have the opportunity to evaluate their own development which they have achieved. This is essential as the organization's success depends on its employees' job performance.

Traditional job performance appraisals have put emphasis on measuring of individual traits and general characteristics of their work. Examples of these traits are creativity, initiative, adaptability, communication, working with others, judgement, and resourcefulness. This approach tended to measure employees on personality rather than on performance. It can be called the individual-centered approach.

However, several research studies have concluded that there is no connection between personal traits and performance (Putti, 1989). The general findings were negative in nature. But one can never totally ignore the fact that individual traits have a role in determining job performance. As a result, the job-centered approach come into existence. This approach viewed an individual's performance in his present job as an important factor in judging him. Hence, the responsibilities and requirements of the current job assignment become the yardsticks against which performance is measured. The emphasis is on the particular requirement of the job and on comparing and relating the individual's performance to his major responsibilities.

Another approach in the evolution of job performance appraisal method is the objective-centered approach. Under this approach, specific objectives are established for each position. This approach emphasizes on the objectives that identify the specific results to be achieved over a given period of time (Bentley, 1996). Usually the given period of time is one year. At the end of this period, actual results achieved are measured against the original objectives planned and the results expected. According to Putti (1989), this process was derived from the notion that job performance should not be measured by competencies or what is done. It should be measuring the outcomes and the results of an individual's effort.

Thus, there appears to be a transition from traits to job requirements and to objectives in measuring the job performance of individual employee. Figure 2.1 shows the revolutionary process in the appraisal system.

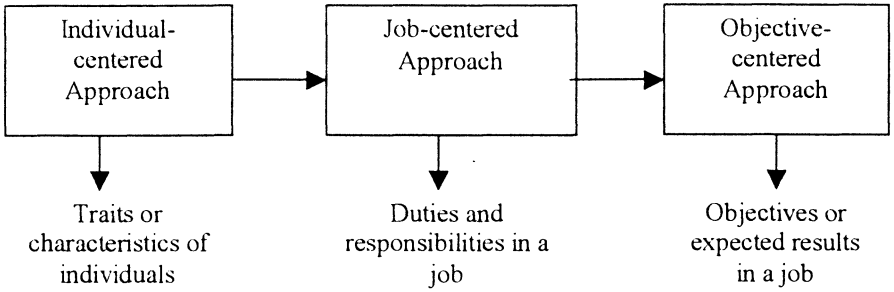

Figure 2.1 Evolutionary process in the appraisal system

To date, there is no one performance appraisal system best suited for all organizations although the objective-centered approach is popular with many organizations (Putti, 1989). The objective-centered approach overcomes the deficiencies of individual-centered and job-centered approaches. One of the reasons for the acceptability and success of the objective-centered approach is the opportunity it offers to the appraisees to get involved as an active participant in the appraisal process.

Job performance can be measured in two ways; the formal and informal measurement Collins (1993). Rating by giving points to individual employee is categorized as formal measurement. In the informal measurement, employee's performance is measured through the process of feedback. According to Miller (1991) rating by using scales is necessary. It can be measured from the aspects of knowledge levels, efficiency, employee's attitude while performing their task, work quality, attendance and punctuality, time required to accomplish the job, leadership skills, creativity and so on so forth.

For the purpose of this study, job performance was defined as the employees' self-perceived level of performance in carrying out their tasks from the physical and attitude aspects. From the physical aspect, job performance referred to the opportunity of being assigned to responsibility, attendance and punctuality, managing responsibilities and job efficiency. The attitude aspect referred to following order, on time, willingness to work overtime and initiative in doing the best.

This study applied the combination of individual and job-centered approach in measuring job performance. This study felt that one could not ignore the role of personal traits because some of these traits bear significance in determining job performance. But at the same time, the responsibilities and requirement of the current job assignment should also be taken into account.

Rating scales were used for rating job performance of the respondents in this study. This method focused on the individuals who perform the job. The traits or characteristics of the individual were identified for a particular job classification and individuals were rated on these using a five-point scale. The traits used for this study were opportunity of being assigned to responsibility, attendance and punctuality, managing responsibilities, job efficiency, following order, on time, willingness to work overtime, and initiative in doing the best.

2.4 Relationship between Computer Literacy and Job Performance

A study was carried out in United States among the college graduates to determine the relationship between their improved computer skills and job performance. The Graduate Follow-Up Survey (n.d.), which was administered over the telephone to recent graduates of Rio Salado College reported that out of a total of seventy-nine graduates participated in the survey, seventy-three percent of them agreed or strongly agreed that their improved computer skills enhanced job performance.

Mikuletoky and Winchester (1983) in their study to determine the impact of current technological advances in health information systems in rural hospitals throughout southern Illinois noted that there was a relationship between job performance of nurses and their computer literacy level. Nurses who had high computer literacy levels were found to have higher job performance levels.

However, according to Bentley (1996) many people have the simple hypothesis that if we increase the level of competencies among employees then improved performance will follow. Unfortunately, his study reported that this hypothesis is not always correct. Although employees need to have the expected levels of computer competency, it is important to know what levels of competence are needed for what is expected. Only when this information is available, it is then possible to enhance the competencies accordingly. This report suggested that improving computer literacy do not necessary lead to improved job performance. Cambell, Mc Cloy, Oppler, and Sager (1993) concurrently stated that job performance is not only influenced by certain competency level but added that it could also be influenced by other factors such as attitudes toward jobs, organizational culture, reward system, and work environment.

Previous findings reported the existence of positive relationship between computer literacy and job performance. People with higher computer literacy tended to have higher job performance. The expectation of this study was to find a positive relationship between computer literacy and job performance. Those who have higher level of computer literacy should have better job performance.

2.5 Differences in Computer Literacy and Job Performance Levels Based on Demographic Factors

2.5.1 Computer Literacy and Age

Age is one of the major concern and area of research in computer literacy. Studies found that young people are more likely to be computer users and more computer literate than older groups (Marshall & Bannon, 1986). This is likely the result of ICT intensive educational programs in schools. In addition, older individuals tend to be slower to respond to the rapid changes in technology and the increased reliance on computers than younger individuals (Linden & Adams, 1992; Kelley, Morrell, Park, & Mayhorn, 1999).

Rosen and Weil (1995) reported that older people have higher computer anxiety and lower computer literacy levels. They attributed the lower computer literacy levels among the older people to their educational backgrounds. They went to school before the introduction of computers into the curriculum. A similar situation may occur in Malaysia since the older employees were also educated during the time when computers were a rarity.

However, Woodrow (1991) found that age is not a significant contributor to computer attitudes and literacy levels. Jusni (1995) also did not find any significant differences in computer literacy levels between employees below and above forty years old. A possible reason for this situation could be older people are no less interested in using new technology than younger people. According to studies by researchers at the Georgia Institute of Technology, the barrier is not an inability to learn how to use computers it is a lack of access and proper instruction (Azar, 1998). Fewer older adults have access to computers and other high-tech devices.

The reports in the literature showed mix findings on relationship between age and computer literacy. The controversy of whether younger employees or the older group have higher computer literacy levels still remains unsolved. Therefore, further studies are needed to investigate the existence of significant differences in computer literacy for the respondents of different age groups.

2.5.2 Computer Literacy and Number of Computer Courses Attended

Sia (1999) in his study on the relationship between attitudes toward computers and computer literacy among the secondary school teachers in Miri found significant differences in computer literacy levels based on the number of computer courses attended. Andrews (2000) also found significant differences in computer literacy level between management personnel who had attended different numbers of computer training courses. People who had attended more computer courses had higher computer literacy level.

The literature suggested that those who had attended more computer courses had a higher computer literacy level. This study will determine if the similar relationship between computer literacy and number of computer courses attended exist among the administrative assistants in DBKU.

2.5.3 Computer Literacy and Amount of Computer Experience

In studies among teachers, Sia (1999) and Khoo (1999) reported that there was a positive relationship between computer literacy and experience in using computers. Both of them reported that teachers with more experience using computers generally had higher level of computer literacy. Andrews (2000) also found similar relationship between computer literacy and amount of computer experience among the educational management personnel. Educational management personnel who had more experience in using computers had a higher computer literacy level. These findings support the general hypothesis that those who have more computer experience would have a higher computer literacy level.

It is of interest to investigate if differences in computer literacy levels exist among administrative assistants in DBKU based on amount of computer experience. If the amount of computer experience did influence the computer literacy levels, some interventions may be arranged to enhance the administrative assistants' computer literacy levels.

2.5.4 Computer Literacy and Accessibility to Office Computers

Lucas (2000) reported that the level of computer literacy increases when employees have easy access to the office computers. If an employee have to leave his or her office to find a computer to use, the computer usage levels decreases. Lucas (2000) concluded that lower computer usage levels could lead to lower computer literacy level.

This study will investigate if there are significant differences in computer literacy levels between the administrative assistants in DBKU who have easy access to office computer and those who do not.

2.5.5 Job Performance and Age

According to Czja (1997), many people tend to belief that when age increases the job performance will decrease. She found that older workers generally have a harder time competing with their young colleagues on tasks that require speed. She further reported that older workers have lower performance on computer related tasks than younger workers.

However, Gentile (1994) found that it is not true for some cases. For example, he found that when age increases, the performance of decision making would increase. Azar (1998) and Gordon (1993) pointed out that older people are as able to learn new tasks and adapt to new working condition as younger workers.

In the local context, Liew (2000) found no significant differences in job performance among the employees of DBKU based on age. But could it be only for specific cases? Hence, more study is needed to investigate if the same situation exists among the administrative assistants at DBKU because Liew (2000) did not study computer-related performance.

2.5.6 Job Performance and Number of Computer Courses Attended

Ghani and Deshpande (1993) reported significant difference in job performance levels between employees who had never attended any computer training courses with those who had attended one to three computer training courses. He further reported that employees who had attended more computer training courses had higher job performance level. This study implied that number of computer training courses had an influence in job performance level.

This study aimed to investigate if differences in job performance among administrative assistants who had attended different amount of computer courses existed. The finding can be valuable to the organization in planning strategies to enhance the administrative assistants' job performance.

2.5.7 Job Performance and Amount of Computer Experience

Studies had been conducted to determine if employees with more computer experience perform better than employees with less computer experience (Nebeker & Tatum, 1993). In a study to determine factors influencing work performance, Czaja (1997) reported that the computer experience is correlated to job performance. Employees with more computer experience were performing better at their job. She further stressed that this is due to more exposure to using computers results in better performance.

It appears logical that those who had more computer experience would naturally have a higher job performance level. But computer experience will not increase job performance if the job is not computer-related. It is of interest to investigate if computer experience have an influence on job performance among the administrative assistants in DBKU. The finding would help in planning strategies for enhancing job performance.

2.5.8 Job Performance and Accessibility to Office Computers

Researcher having reviewed the literature through a search at the local libraries and on-lined search at Emerald Library, Proquest and other general search engines such as Yahoo, Google, and Alta Vista, failed to discover studies on the relationship between job performance and accessibility to office computers in organizations.

Nevertheless, it was of interest to this study to investigate the existence of significant differences in job performance based on the accessibility to office computers. If accessibility to office computers were found influencing the job performance level of the administrative assistants, the organization should consider making computers more accessible or can be accessed easily in the office if the organization desired to enhance the administrative assistants' job performance level.

2.6 Conclusion

The literature suggested that computer literacy and job performance of the civil workers are very important factors that will determine the success of E-Government implementation. Administrative assistants with high level of computer literacy and job performance can handle their daily work efficiently. Computer literacy and job performance have been variously defined in the literature. The literature showed no conclusive evidences that computer literacy and job performance is correlated. The relationship between computer literacy and job performance and the differences in computer literacy and job performance based on demographic factors such as age, number of computer courses attended, amount of computer experience and accessibility to office computers are also not conclusive. The differing results reported could be due to differences in sampling methods, sample size, instruments used, as well as locations of study. Some researchers reported significance differences but others reported the opposite findings or no differences in computer literacy and job performance based on the demographic factors above.

2.7 Summary

This chapter covered major areas of concerns pertaining to the study. It started with discussions on computers and E-Government. This was followed by definitions of computer literacy and job performance. Then it discussed on findings form previous studies on whether significant relationship exists between computer literacy and job performance. It further presented the findings from previous study on whether significant differences in computer literacy and job performance exist based on demographic factors such as age, computer courses attended, computer experience, and accessibility to office computers.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter describes the methodology that was used in the study, encompassing the research design, population and sample, instrumentation, data collection procedures, and data analysis procedures.

3.1 Research Design

This study used the survey method to obtain data. Survey questionnaires were distributed to the respondents through the Head of Human Resource Division in DBKU. Questionnaire was used because it is less time-consuming, less expensive, able to cover a large number of subjects and may elicit more truthful responses as confidentiality is guaranteed (Sekaran, 1992; Diggory, 1996; Frankel & Wallen, 1990).

Accordingly, there were three important sets of data collected. One was the demographic data of the respondents, the second was the measure of computer literacy levels and the third was the measure of job performance levels. All these sets of data were collected from the respondents through a three-part questionnaire.

The dependent variables investigated were computer literacy and job performance levels. The independent variables were the demographic factors such as age groups, amount of computer courses attended, amount of computer experiences, accessibility to office computers.

3.2 Research Location

The location of this study was Kuching North City Hall (DBKU) office, which was situated at Bukit Siol. Jalan Semariang, Petra Jaya, 03050 Kuching.

3.3 The Respondents

There were a total of 86 administrative assistants in DBKU. They comprised clerical/operational, secretariat and finance support staff. All of them were selected as respondents of this study. The questionnaires were administered to all the administrative assistants in DBKU. Fifty-five usable questionnaires were returned.

There were slightly more female (54.5%, 30) as compared to male (45.5%, 25) respondents. Majority of the respondents were aged between 31-40 years old (61.8%, 34), followed by those aged 30 years and below (32.7%, 18). Only three respondents (5.5%) were 41 years old and above.

Slightly more than half (58.2%, 32)) of the respondents had attended one to three computer courses which were organized or sponsored by DBKU, followed by those had never attended any such courses (29.1%, 16). Only seven respondents (12.7%) had attended more than three computer courses.

Twenty (36.4%) of the respondents had ten years or more of computer experience, followed by those who had seven to nine years of experience (29.1%, 16). Ten

respondents (18.2%) had three years or less computer experience and the other nine respondents (16.4%) had four to six years of computer experience.

The data also showed that most of the respondents (61.8%, 34) had difficulty in accessing the office computers when they need to accomplish their work as opposed to those who did not encounter such problem.

3.4 The Research Instrument

This study used a questionnaire to obtain the required data. The questionnaire consisted of three sections. Section A consisted of five items related to the respondents' demographic data such as gender, age, number of computer courses attended, computer experience, and accessibility to office computers.

Section B measured the respondents' computer literacy level. Computer literacy was defined as the respondents' self-perception of their level of knowledge, skills and understanding regarding common computer software applications such as word processors (MS Word), spreadsheet (MS Excel), presentation (MS PowerPoint), data base (MS Access), Web browser (MS Internet Explorer), and communication tool (e-mail).

The computer literacy scale in this study was taken from the Digital Literacy Self-Assessment Questionnaire (n.d.). A total of forty items, which corresponded to the definition of computer literacy in this study, were selected. These items were divided into eight sub-sections. Each sub-section consisted of five items which measured each individual dimensions stated in the definition. The general computer knowledge was measured by using items 1 – 5 in the questionnaire. The file management skills were measured with items 6 - 10, word processing skills with items 11 – 15, communication skills with items 16 – 20, Internet skills with items 21 – 25, spreadsheet skills with items 26 – 30, presentation skills with items 31 – 35, and database skills with items 36 – 40.

Section C comprised of 12 items related to the respondents' job performance level. It was taken from the survey questionnaire used by Thang (2001). The items involved measuring the respondent's degree of performance in carrying out their jobs from the physical and attitude aspects. All items corresponded to the definition of job performance stated in the definition of terms. The "opportunity of being assigned to responsibility" was measured by using items 1 and 4, "attendance rate" was measured with item 2, "managing responsibility" was measured with items 8 and 12, "job efficiency" was measured with item 9, "obeying to order" was measured with item 11, "on time during work" was measured with item 10, "willingness to perform overtime and extra work" were measured with items 6 and 7, and "initiative in doing the job well and doing the best" were measured with items 3 and 5.

The five-point Likert Scale corresponding to both computer literacy and job performance levels was provided. The computer literacy scale ranged from "None" to "Master" level of computer literacy. The job performance scale ranged from "Strongly disagree" to "Strongly agree". Section B and C required the respondents to self-report their responses based on these five-point Likert Scale.

3.5. Pilot Test

A pilot test was carried out to determine the reliability of Section B and Section C of the questionnaire. Forty sets of questionnaire were administered to the administrative assistants of Bau District Council, Bau District Office, and Sarawak Tourism Board. Thirty sets of questionnaire were collected back where four sets were incomplete. Hence, data from twenty-six sets of completed questionnaires were analyzed using The Statistical Package for Social Sciences (SPSS) to determine the Cronbach's Alpha values.

The Crobach's Alpha values for Section B (Computer Literacy) and Section C (Job Performance) were 0.98 and 0.92 respectively. The Cronbach's Alpha values obtained were acceptable and showed that the questionnaire was reliable and could be used for the purpose of this study.

3.6 Data Collection Procedure

After obtaining approval from the Human Resource Division, DBKU, the researcher met the Head of Human Resource Division to discuss on when and how to distribute the survey questionnaires.

Eighty-six sets of questionnaire were distributed through the Head of Human Resource Division on the 26 th February, 2003. The researcher collected back the questionnaires a week after the distribution of the questionnaires through the Head of Human Resource Division. Out of the 86 sets of questionnaire distributed, only 55 sets (63.9%) were fully answered. The completed questionnaires at 55 (63.9%) were acceptable as Gay (1996) suggested that a return rate of 50 % is acceptable for a survey design.

3.7 Data Analysis Procedure

The data collected were analyzed using the Statistical Package for Social Sciences (SPSS). The data were analyzed according to the research objectives stated in chapter one.

3.7.1 Computer Literacy Level

This section consisted of 40 items. Each of the 40 items in this section had scores of 1 = None, 2 = Little, 3 = Average, 4 = Above average, and 5 = Master. Respondents' raw scores for all 40 items were summed. Hence, the maximum score for each respondent was 40 X 5 = 200; while the minimum score was 40 X 1 = 40.

The range of scores for the different computer literacy levels was then calculated as follow;

Step 1. Find the difference between the highest and lowest score values contained in the original data and add (1) to obtain the total number of scores.

Step 2. Divide the total number of scores by the number of class intervals to obtain the number of scores in each class interval.

Step 3. Subtract 0.5 from the lowest score in the data as the minimum value in the lowest class and add to the score for each class to obtain the maximum score for this

class. After that, follow these procedures for successive higher class until all the scores are included in their appropriate classes. In this scale, the difference between the maximum and minimum scores was 200 – 40 = 160. Adding (1) to this difference gave a total number of scores of 161. This total score (161) was then divided by the five classes of computer literacy levels (161 ÷ 5 = 32.2) to obtain 32.2 as the number of scores for each class. The minimum score in the lowest class was 40. Subtract 0.5 from the lowest score to obtain the lowest boundary of 39.5. Thus the maximum score for the lowest class would be 39.5 + 32.2 = 71.7. So, the range of scores for the lowest class of computer literacy level was 39.5 to 71.7. Following this procedure, the range of scores for the subsequent classes were obtained and shown in table 3.1.

Table 3.1
Distribution of Computer Literacy Scores and their Levels

Scores	Computer Literacy Levels
39.5 – 71.7	Novice
71.7 – 103.9	Beginner
103.9 – 136.1	Intermediate
136.1 – 168.3	Advance
168.3 – 200.5	Expert

3.7.2 Job Performance Level

For this section, a five-ponit Likert Scale of Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4) and Strongly agree (5) was used to indicate the subjects' responses to every items in the scale. The determination of job performance levels was done using the same procedures as in 3.8.1.1. The distribution is shown in Table 3.2.

Table 3.2
Distribution of Job Performance Scores and their Levels

Scores	Job Performance Levels
11.5 – 21.3	Very Low
21.3 – 31.1	Low
31.1 – 40.9	Average
40.9 – 50.9	High
50.9 -- 60.5	Very High

3.7.3 Descriptive Analysis

Descriptive analysis was used to describe the computer literacy and job performance levels. Frequency (f), percentage (%), and mean were used to describe them.

3.7.4 Inferential Analysis

Table 3.3 shows the type of inferential analysis carried out for each research questions stated in chapter one. For each of the inferential analysis, the confidence level was fixed at 0.05.

Table 3.3
Type of Inferential Analyses Used for each of the Null Hypotheses

Null Hypotheses	Statistical Analysis
H_{01} There was no significant relationship between computer literacy and job performance among the administrative assistants in DBKU.	Pearson Correlation
H_{02} There was no significant difference in computer literacy levels between the administrative assistants from different age groups.	One-way ANOVA & Tukey's HSD
H_{03} There was no significant difference in computer literacy levels between the administrative assistants with different number of computer courses attended.	One-way ANOVA & Tukey's HSD
H_{04} There was no significant difference in computer literacy levels between the administrative assistants with different number of computer experience.	One-way ANOVA & Tukey's HSD
H_{05} There was no significant difference in computer literacy levels between the administrative assistants who have easy access to office computers and those who have difficulty accessing office computers.	Independent t-test
H_{06} There was no significant difference in job performance levels between the administrative assistants form different age groups.	One-way ANOVA & Tukey's HSD
H_{07} There was no significant difference in job performance levels between the administrative assistants with different number of computer courses attended.	One-way ANOVA & Tukey's HSD
H_{08} There was no significant difference in job performance levels between the administrative assistants with different amount of computer experience.	One-way ANOVA & Tukey's HSD
H_{09} There was no significant difference in computer literacy levels between the administrative assistants who have easy access to office computers and those who have difficulty in accessing office computers	Independent t-test

3.8 Summary

This chapter outlined the research methodology used in this study. The development of questionnaire and the procedure for data collection and analysis were also discussed in this chapter. The following chapter discusses the findings of the study.

CHAPTER FOUR

FINDINGS

4.0 Introduction

This chapter presents and discusses the results of the study based on the research questions and research hypotheses as stated in chapter one.

4.1 Computer Literacy Level

Research question investigated was "What is the computer literacy level of the administrative assistants in DBKU?" As shown in Table 4.1, a third of the respondents (36.4%, 20) perceived themselves to be at the "intermediate level" of computer literacy. Around a quarter (23.6%, 13) felt that they were at the "advance level" of computer literacy. An equal number of respondents (14.5%, 8) perceived themselves to be "beginner" and "expert" computer users. Six respondents (10.9%) felt that they were at the "novice level" of computer literacy.

Table 4.1
Distribution of Respondents by Computer Literacy Levels

Score	Computer Literacy Level	Frequency	Percentage
39.5 – 71.7	Novice	6	10.9
71.7 – 103.9	Beginner	8	14.5
103.9 – 136.1	Intermediate	20	36.4
136.1 – 168.3	Advance	13	23.6
168.3 – 200.5	Expert	8	14.5
Total		55	100.0

4.2 Job Performance Level

The research questions studied was "What is the job performance level of the administrative assistants in DBKU?" Referring to Table 4.2, more than half (60%, 33) of respondents perceived themselves to be at the "high level" of job performance. About a quarter (20%, 11) of respondents felt that they were at "average level" of job performance. Nine respondents (16.4%) perceived themselves to be at "very high level" of job performance.

Table 4.2
Distribution of Respondents by Job Performance Levels

Score	Job Performance Level	Frequency	Percentage
11.5 – 21.3	Very Low	1	1.8
21.3 – 31.1	Low	1	1.8
31.1 – 40.9	Average	11	20.0
40.9 – 50.7	High	33	60.0
50.7 – 60.5	Very High	9	16.4
Total		55	100.0

4.3 Relationship between Computer Literacy and Job Performance

This study suggested the null hypothesis that there was no significant relationship between computer literacy and job performance among the administrative assistants in DBKU. The Pearson Coefficient (r) test was used to determine the significance of relationship between computer literacy and job performance. As indicated by the p-value (0.360) and r-value (0.126), the relationship between computer literacy and job performance was not significant.

4.4 Differences in Computer Literacy Levels Based on Age, Number of Computer Courses Attended, Amount of Computer Experience and Accessibility to Office Computers

4.4.1 Differences in Computer Literacy Levels Based on Age

The null hypothesis of no significant difference in computer literacy levels between the administrative assistants from difference age groups were proposed for this study. The results of One-way ANOVA in Table 4.3 showed that there were significant differences in compute literacy levels between administrative assistants from different age groups ($F(2, 52)=0.741$, $p=<0.05$).

Tukey's HSD test (Table 4.4) showed that computer literacy levels for administrative assistants aged 30 and below were significantly higher than those aged between thirty-one to forty.

Table 4.3
Results of One-way ANOVA for differences in computer literacy levels based on different age groups

	Sum of Square	df	Mean Square	F	Sig.
Between Groups	10910.66	2	5455.33	0.741*	0.030
Within Groups	75838.33	52	1458.43		
Total	86748.98	54			

Note: * p = < 0.05

Table 4.4
Result of Tukey's HSD for pair-wise comparison of differences in computer literacy levels based on different age groups.

Age Groups		30 & below	41 & above	31 - 40
	Mean	1444.4	124.6	115.9
30 & below	1444.4		0.216	0.035*
41 & above	124.6			0.862
31 - 40	115.9			

Note: *p = < 0.05

4.4.2 Differences in Computer Literacy Levels Based on Number of Computer Courses Attended

The null hypothesis suggested that there was no significant difference in computer literacy levels between the administrative assistants who had attended different number of computer courses. The result of One-way ANOVA in Table 4.5 showed that there were significant differences in computer literacy levels between groups of administrative assistants who had attended different number of computer courses ($F(2,52)=5.104$, $p=<0.01$). Tukey's HSD test (Table 4.6) showed that administrative assistants that attended more than four computer courses had higher computer literacy levels than those who had never attended any computer courses.

Table 4.5
Result of One-way ANOVA for differences in computer literacy levels based on different number of computer courses attended

	Sum of Square	df	Mean Square	F	Sig.
Between Groups	14235.68	2	7117.84	5.104**	0.009
Within Groups	72513.30	52	1394.49		
Total	86748.98	54			

Note: ** p = < 0.01

Table 4.6
Result of Tukey's HSD for pair-wise comparison of differences in computer literacy levels based on different number of computer courses attended.

No. of Computer Courses Attended		4 & above	1-3	Never
	Mean	157.3	129.0	103.0
4 & above	157.3		0.244	0.010*
1-3	129.0			0.069
Never	103.0			

Note: *p = < 0.05

4.4.3 Differences in Computer Literacy Levels Based on Computer Experience

The null hypothesis proposed was "There is no significant difference in computer literacy levels between the administrative assistants with different years of computer experience". The result of One-way ANOVA in Table 4.7 showed that there were significant differences in computer literacy levels between groups of administrative assistants with different amount of computer experiences ($F(3,51 = 4.052)$, $p = ,0.05$). Tukey's HSD test (Table 4.8) showed that administrative assistants with four to six years and less than three years of computer experience had significantly lower computer literacy levels compared to administrative assistants with more than ten years of computer experience.

Table 4.7
Result of One-way ANOVA for differences in computer literacy levels based on different amount of computer experience.

	Sum of Square	df	Mean Square	F	Sig.
Between Groups	16695.96	3	5565.32	4.052	0.012*
Within Groups	70053.02	51	1373.59		
Total	86748.98	54			

Note: p = < 0.05

Table 4.8
Results of Tukey's HSD for pair-wise comparison of difference in computer literacy levels based on different amount of computer experience.

Computer Experience		10 yrs & above	7-9 years	4-6 yrs	3 yrs & below
	Mean	143.6	127.4	102.4	102.3
10 yrs & above	143.6		0.566	0.039*	0.029*
7-9 yrs	127.4			0.380	0.345
4-6 yrs	102.4				1.000
3 yrs & below	102.3				

Note: * p = < 0.05

4.4.4 Differences in Computer Literacy Levels Based on Accessibility to Office Computers.

This study proposed the null hypothesis that there was no significant difference in computer literacy levels between the administrative assistants who had easy access to office computers and those who had difficulty in accessing office computers. Table 4.9 showed that there was a significant difference in computer literacy levels between the administrative assistants who had easy access to office computers and those who had difficulty accessing office computers ($t(53) = -3.120$, $p = <0.05$). Administrative assistants who had easy access to office computers had higher computer literacy ($M = 136.9$) as compared to those who had difficulty accessing office computers ($M = 104.7$).

Table 4.9
Results of Independent t-test for computer literacy levels and accessibility to office computers

	Mean	SD	df	t	Sig.	N
No	104.7	36.99	53	-3.120*	0.038	21
Yes	136.9	37.31				24

Note: * $p = < 0.05$

4.5 Differences in Job Performance Levels Based on Age, Number of Computer Courses Attended, Amount of Computer Experience and Accessibility to Office Computers

4.5.1 Differences in Job Performance Levels Based on Age

The null hypothesis of no significant difference in job performance levels between the administrative assistants form different age groups were suggested for this study. Referring to the One-way ANOVA results shown in Table 4.10, there was no significant difference in job performance levels based on the administrative assistants' age groups ($F(2, 52) = 1.232$, $p = 0.300$).

Table 4.10
Results of One-way ANOVA for differences in job performance levels based on different age groups

	Sum of Square	df	Mean Square	F	Sig.
Between Groups	143.98	2	71.99	1.232	0.300
Within Groups	3038.93	52	58.44		
Total	3182.91	54			

4.5.2 Differences in Job Performance Levels Based on Number of Computer Courses Attended

This study suggested the null hypothesis that there was no significant difference in job performance levels between the administrative assistants who had attended different number of computer courses. One-way ANOVA test results in Table 4.11 showed that there was no significant difference in job performance levels based on the administrative assistants who had attended different number of computer courses ($F(2, 52) = 1.199, p = 0.310$).

Table 4.11
Results of One-way ANOVA for difference in job performance levels based on different number of computer courses attended

	Sum of Square	df	Mean Square	F	Sig.
Between Groups	110.26	2	70.13	1.199	0.310
Within Groups	3042.65	52	58.51		
Total	3182.91	54			

4.5.3 Difference in Job Performance Levels Based on Computer Experience

The null hypothesis suggested was "There is no significant difference in job performance levels between the administrative assistants who had attended different number of computer courses." Referring to the One-way ANOVA result in Table 4.12, there was no significant difference in computer literacy levels based on the administrative assistants' amount of computer experiences ($F(3,51) = 2.024, p = 0.122$).

Table 4.12
Result of One-way ANOVA for difference in job performance based on different amount of computer experience

	Sum of Square	df	Mean Square	F	Sig.
Between Groups	338.68	3	112.89	2.024	0.122
Within Groups	2844.23	51	55.77		
Total	3182.91	54			

4.5.4 Differences in Job Performance Levels Based on Accessibility to Office Computers

The null hypothesis suggested was "There is no significant difference in job performance levels between the administrative assistants who had easy access to the office computers and those who have difficulty in accessing office computers." As shown in Table 4.13, the results of the Independent t-test indicated no significant difference in job performance levels existed between administrative assistants who had easy access to office computers (M = 45.5) and those who had difficulty in accessing office computers (M = 44.9).

Table 4.13
Result of Independent t-test for difference in job performance levels based on accessibility to office computers

	Mean	Standard Deviation	df	t	Sig.	N
No	44.9	4.99	53	-0.277	0.783	21
Yes	45.5	9.01				34

4.6 Summary

This chapter presented the findings of this study. First, the computer literacy and job performance levels of the respondents were presented. Then the relationship between computer literacy and job performance was put forth. Finally, the differences in computer literacy and job performance levels based on different factors were presented.

CHAPTER FIVE

DISCUSSIONS AND CONCLUSIONS

5.0 Introduction

This chapter contains a summary of the study, discussion on the findings, conclusions of the study, and recommendations for future research and practices.

5.1 A summary of the study

This study was carried out in Kuching North City Hall (DBKU). The respondents of this study were the administrative assistants of DBKU. The main objectives of this study were to find out;

a. what was the computer literacy level of the administrative assistants in DBKU;
b. what was the job performance level of the administrative assistants in DBKU;
c. was there a significant relationship between computer literacy and job performance among the administrative assistants in DBKU;
d. were there significant differences in computer literacy levels between the administrative assistants based on age, number of computer courses attended, computer experience, and accessibility to office computers;
e. were there significant differences in job performance levels between the administrative assistants based on age, number of computer courses attended, computer experience, and accessibility to office computers.

A questionnaire was developed to collect demographic data, computer literacy and job performance levels. The computer literacy section of the questionnaire consisted of 40 items, and was adopted from the Digital Literacy Self-Assessment Questionnaire (n.d.). The job performance section of questionnaire consisted of 12 items taken from the research instrument used by Thang (2001). The questionnaire was pilot tested with 26 administrative assistants of Bau District Office, Bau District Council, and the Sarawak Tourism Board. The reliability index (Alpha value = 0.97) for the questionnaire was appropriate for use in the actual study. The questionnaires were administered to the administrative assistants in DBKU. Out of the 86 questionnaires distributed, 55 sets were fully completed and used in the analysis.

The data collected was analyzed using SPSS Version 10.0. Descriptive statistics were used to determine the computer literacy and job performance levels. The null hypotheses were tested with Pearson Correlation, independent t-tests and One-way ANOVA. If a significant difference was found in the One-way ANOVA, the Tukey's HSD test was used to detect pair-wise differences in computer literacy and job performance levels for the various levels in the independent variables.

5.2 Discussion

5.2.1 Computer Literacy Levels

The results of the study revealed that a third (36.4%, 20) of the respondents had "intermediate level" of computer literacy. It implied that most of them could perform computer-related tasks, but struggled in some areas. They could complete complex work but often needed help to figure things out.

Approximately a quarter (23.6%, 13) of the respondents felt that they were at the "advance level" of computer literacy. This finding indicated that these administrative assistants were able to complete complex tasks and solve problems as they arose and were often consulted by their fellow colleagues. They could perform the computer-related tasks repeatedly with great success or can perform tasks without any problem.

An equal number of respondents (14.5%, 8) perceived themselves to be "beginner" and "expert" computer users. The "beginners" had little computer experience and were just able to complete some basic computer-related tasks. They had a basic understanding of computers, but could not perform the tasks successfully without assistance. More computer trainings were required to develop their computer literacy. On the other hand, "expert" computer users had the ability to complete complex computer-related tasks, solve problems as they arose and were able to make changes to software, operational systems, and were able to maintain computers and make them perform better. They had mastered the technology and could perform the tasks without any problems. They also had the ability to train others.

Six respondents (10.9%) felt that they were at the "novice level" of computer literacy. This group of respondents had very limited computer knowledge and skills regarding computers. They had no understanding of computers. They did not know how to do basic computer-related tasks.

5.2.2 Job Performance Levels

A majority (60%, 33) of respondents perceived themselves to be at the "high level" of job performance. About a quarter (20%, 11) of respondents felt that they were at "average level" of job performance. Nine respondents (16.4%) perceived themselves to be at the "very high level" of job performance.

Results in this study were consistent with the findings reported by Liew (2000). She found that most of the support staff, which included the administrative assistants in DBKU had "average" and "high level" of job performance and none of them was categorized in the category of "low level" of job performance. But such comparison may not be valid because the job performance scale, subjects and the nature of work in this study were different from that employed by Liew (2000).

These findings implied that most of the administrative assistants in DBKU performed their job well. A majority of them were reported to have high or very high level of job performance. Most of them were willing to work hard to achieve the organizational goals. Since 1990, DBKU had successfully adopted Total Quality Management, winning various awards at the state and national levels such as The Prime Minister Award and The Chief Minister Trophy On Quality Management, ISO 9001

Certification On Quality, and ISO 14001 Certification On Environmental Management System. .

5.2.3 Relationship between Computer Literacy and Job Performance

As indicated by the p-value (0.360) and r-value (0.126) in the result, the relationship between computer literacy and job performance among the administrative assistants in DBKU was not significant. This result implied that administrative assistants who had high computer literacy levels did not necessarily have high job performance level and vice versa.

This finding was contradictory to the findings from the Graduate Follow-Up Survey (n.d.) and Mikuletoky and Winchester (1983). They reported that employees who had higher computer literacy levels also had higher job performance levels. This is because people who are more familiar with computers find it easier to perform their job. However, it depends on how much their job is computer-related. The possible reasons for the contradictory of these two findings could be due to differences in respondents, type of job performed, and the scales used in the studies.

However, this finding was consistent with finding from Bentley (1996). He reported that improving computer literacy need not necessary lead to improved job performance. This is because the level of job performance does not depend solely on the computer literacy level. Job performance could be influenced by other factors like the employees' attitudes toward their jobs rewards system, organizational culture, and work environment (Cambell, Mc Cloy, Oppler, & Sager, 1993). It is of important that the organization will not fell into the pitfall of improving its employees' job performance levels by only looking for ways and means to uplift their computer literacy levels without considering other factors.

5.2.4 Differences in Computer Literacy and Job Performance Levels Based on Age, Number of Computer Courses Attended, Amount of Computer Experience and Accessibility to Office Computers

5.2.4.1 Age

This study found that administrative assistants from the youngest age group (30 years and below) had the "advance level" of computer literacy. Respondents aged over 40 years old were at the "intermediate level". Respondents aged between 31 to 40 years old were reported to have the lowest computer literacy level. They were at the "intermediate level". There was a significant difference in computer literacy between respondents from different age groups. The younger group of administrative assistants (30 years old and below) had the highest computer literacy levels compared to other two groups.

On the other hand, this study did not find significant differences in job performance levels between administrative assistants in DBKU based on age. This finding implied that regardless of age, majority of the administrative assistants had "high" job performance levels. Age did not affect their job performance. This is good news for the organization because everyone, young or old worked equally hard for the organization. This finding was consistent with the findings reported by Gordon (1993) which found that job performance would not decline according to age. But this finding contradicted

with the finding Czaja (1997) and Gentile (1994) which reported that older people perform worse than younger people.

5.2.4.2 Number of Computer Courses Attended

This study found a significant difference in computer literacy level between administrative assistants who have attended different number of computer courses. This finding was consistent with the findings of Sia (1999) and Andrews (2000) who reported significant differences in computer literacy level based on different number of computer courses attended. They found that employees who had attended more computer courses had better computer literacy. The finding could be due to the fact that exposure to more computer training results in better understanding and more competent in using computers. Hence, providing administrative assistants with more computer courses could be one of the ways to improve their computer literacy levels.

However, the finding in this study found no significant difference in job performance levels between administrative assistants who had attended different number of computer courses. It indicated that increasing the number of computer courses attended by the administrative assistants did not necessarily results in improved job performance.

5.2.4.3 Amount of Computer Experience

This study found a significant difference in computer literacy level between administrative assistants with different years of computer experience. It shows that administrative assistants with more computer experience had higher computer literacy levels. This finding was consistent with findings from Sia (1999), Khoo (1999) and Andrews (2000). They found that having more computer experience resulted in better computer literacy levels. These findings including those in this study confirmed the possibility that respondents who had more computer experience also had higher computer literacy levels. Longer years of working with computers resulted in one being more knowledgeable, skillful and familiar with computers and computer software, thus resulting in higher computer literacy levels.

On the other hand, this study did not find any significant difference in job performance among the administrative assistants based on computer experience. This finding contradicted with findings of Czaja (1997) who reported existence of differences in job performance between workers with more computer experience and those who had less computer experience. Czaja (1997) in a study involving a group of workers with different amount of experience using computers in United State found that workers who had more experience in using computers performed their job better. The differences in their findings could be that the tasks that administrative assistants in this study had to perform were not intensively computer-related.

5.2.4.4 Accessibility to Office Computers

This study found a significant difference in computer literacy levels between administrative assistants who had easy access to office computers and those who had difficulty accessing office computers. This finding contradicted the findings reported by Andrews (2000) who conducted a study among the administrative personnel in rural secondary schools in Kuching. He reported that there were no significant differences in computer literacy levels between administrative personnel who had easy access to office computers and those who had difficulty accessing office computers. He

concluded that a possible reason for the lack of differences in computer literacy levels based on accessibility to office computers among the administrative personnel in schools was due to the high (90%) of computer ownership among them. He further explained that their ownership of computers would have determined their computer literacy levels regardless of whether they have accessed to computers in the workplace or not. However, this study did not investigate the ownership of computers among the respondents. So comparison in this way may not be valid.

Based on results in previous sections, it could be concluded that administrative assistants with easy accessibility to office computers would have more exposure to using computers. Increased computer usage thus led to the administrative assistants having higher computer literacy level. It is imperative that administrative assistants in DBKU be supplied enough computers in their workplace so that their computer experience and computer literacy levels would be uplifted.

On the other hand, this study found that having easy access to office computers did not improve the administrative assistants' job performance. It could be due to the reason that this study did not investigate the nature of their job. It did not investigate how much of it was computer related. Further more, job performance could be affected by other factors such as employees' attitude, organization culture, and work environment.

5.3 Conclusions and Recommendations

The findings of this study showed no significant relationship between computer literacy and job performance among the administrative assistants in DBKU. It implied that manipulations of either variable would have no effect on the other variable. Efforts to increase computer literacy level may not produce corresponding effect on job performance. DBKU management should be aware that to increase job performance, there may be a need to improve other factors such as employee's attitude, organizational culture, and work environment as well.

The findings further revealed that administrative assistants aged thirty years and below had the highest level of computer literacy as compared to other older groups. DBKU should assist the older administrative assistants to improve their computer literacy by providing them with more computer training.

Administrative assistants who had attended more computer courses had higher computer literacy level. DBKU should be aware that providing computer courses to administrative assistants could be another important consideration in promoting ICTs in the work place. Decentralized training and peer teaching are possible alternatives as findings showed that only a handful (14.5%) of administrative assistants perceived themselves as expert users. Further more, DBKU should also assist their administrative assistants to buy and use computers through loan schemes.

This study found that administrative who had easy access to office computers had higher computer literacy level as compared to those who faced difficulty in accessing office computers. Having easy access to a computer in the office would encourage administrative assistants to use it more frequently. This would result in more computer experience and finally leads to higher computer literacy level.

Finally, DBKU should take note that there is no significant difference in job performance between the administrative assistants from different age groups. Thus the management should not have age stereotypes. They should appreciate every contribution given by administrative assistant regardless of their age. They should be rewarded fairly irrespective of any age group.

The following are some recommendations for future researchers who would be interested in the study of computer literacy and job performance:

a) This study was confined to the administrative assistants in DBKU. It is recommended that similar studies be carried out in other government organizations. This would give a clearer view of the relationship between computer literacy and job performance.

b) A similar study could also be carried out in the private sector. Such study would provide findings for comparison to identify appropriate intervention measures to be taken to enhance both computer literacy and job performance.

c) This study found no significant relationship between computer literacy and job performance. It could be due to this study did not investigate how much of the administrative assistants' job is computer related. Future research can investigate the nature of their job and how much of it is computer related.

d) Future researchers should also measure job performance not just through the respondents' self-perceptions but also obtain data from peers and supervisors.

e) This study did not include the number of the computer courses attended outside DBKU. The future researchers should consider including the computer courses attended outside DBKU to obtain a clearer picture of the computer literacy levels of the administrative assistants.

f) The items listed in the instrument measuring job performance were rather too few and some items tended to elicit positive response from the respondents. A more comprehensive instrument should be used in the future research.

5.4 Summary

This chapter put forward a summary of the study, discussion of the findings, and conclusions and recommendations for the organization and future researchers.

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APPENDIX A

MSc HRD
FLEXI-TIME KOHORT 2
Fakulti Sains Kognitif & Pembangunan Manusia,
Universiti Malaysia Sarawwak,
94300 Kota Samarahan,
Sarawak.

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20 Januari 2003

Tuan/Puan,

Kajian Literasi Komputer dan Prestasi Kerja

Kajian ini adalah sebahagian daripada syarat program sarjana yang saya ikuti di UNIMAS. Ia bertujuan mengumpul data untuk memahami perhubungan di antara literasi komputer dan prestasi kerja di kalangan pembantu tadbir di DBKU.

Borang kaji selidik ini terbahagi kepada:

Bahagian A: Maklumat Latar Belakang

Bahagian B: Literasi Komputer

Bahagian C: Prestasi Kerja

Instrumen ini bukan satu ujian. Namun begitu, jawapan ikhlas daripada tuan/puan adalah sangat dihargai. Segala data kajian ini adalah sulit dan hanya digunakan untuk tujuan akademik sahaja.

Sila tandakan respon anda dengan tanda (√) dan jawab semua item.

Kerjasama tuan/puan didahului dengan ribuan terima kasih.

Sekian.

Yang benar,

_____
(CHEE KIN SIONG)
630808-13-5191

APPENDIX B

Questionnaire
Soal Selidik Kajian

Computer Literacy and Job Performance among Administrative Assistants in Kuching North City Hall.

Literasi Komputer dan Prestasi Kerja di kalangan Pembantu Tadbir di Dewan Bandaraya Kuching Utara.

All Information Is Confidential

Semua Maklumat Adalah Dirahsiakan

Researcher

Pengkaji

Chee Kin Siong

Faculty of Cognitive Science and Human Development
University Malaysia Sarawak
Kota Samarahan
Sarawak

Section A : Background Information

Bahagian A : Maklumat Latarbelakang

Please tick (√) *or* fill the appropriate response where necessary.
Sila tandakan (√) atau isikan dengan respon yang sesuai di mana perlu.

1. Gender:
Jantina:

☐ Male
Lelaki

☐ Female
Perempuan

2. Age:
Umur:

☐ 30 yrs & below
30 tahun ke bawah

☐ 31-40 yrs
31-40 tahun

☐ 41 yrs & above
41 tahun ke atas

3. Number of computer courses conducted/sponsored by DBKU that you had ever attended:

Bilangan kursus komputer yang dikendalikan/ditaja oleh DBKU pernah anda hadiri:

☐ Never
Tidak Pernah

☐ 1 – 3 times
1 – 3 kali

☐ 4 times & above
4 *kali ke atas*

4. Can the computers in your office be accessed easily when you need them to do your work?
Adakah komputer di pejabat anda mudah dicapai apabila anda memerlukannya untuk membuat kerja?

☐ Yes
Ya

☐ No
Tidak

5. How long have you used computers?
Berapa lamakah sudah anda gunakan komputer ?

☐ 3 yrs & below
3 tahun ke bawah

☐ 4-6 yrs
4-6 tahun

☐ 7-9 yrs
7-9 tahun

☐ *10 yrs & above*
10 tahun ke atas

Section B : Computer Literacy

Bahagian B : Literasi Komputer

Please read the list of things people do with computers and tick *(√)* only **one** response that best describes your abilities.

Sila baca senarai perkara-perkara yang dilakukan oleh seseorang dengan komputer dan tandakan (√) pada ***satu*** *respon yang paling tepat menggambarkan kebolehan anda.*

None *Tiada*	You don't know how to do this task or do not understand what the question means. *Anda tidak tahu bagaimana melakukan tugas ini atau anda tidak faham makna soalan ini.*
Little *Sedikit*	You have a basic understanding of this task but need help to complete it. *Anda mempunyai kefahaman yang asas tentang tugas ini dan memerlukan bantuan untuk menyempurnakannya.*
Average *Sederhana*	You are able to complete this task but often need help to figure things out. *Anda mampu menyempurnakan tugas ini tetapi selalu memerlukan bantuan untuk menyelesaikannya.*
Above Average *Melebihi Sederhana*	You are able to complete this task repeatedly with great success but has not mastered all the elements. *Anda mampu meneyempurnakan tugas ini berulang kali dengan jayanya tetapi belum menguasai semua elemen.*
Master *Menguasai*	You are able to solve problems when they come up and can complete this task without any problem. You could probably train others in this task. *Anda mampu menyelesaikan masalah yang timbul dan menyempurnakan tugas ini tanpa sebarang masalah. Anda mungkin dapat memberi latihan dalam tugas ini kepada orang lain.*

	Task *Tugas*	Present Level of Computer Literacy *Tahap Literasi Komputer Sekarang*				
		None *Tiada*	Little *Sedikit*	Average *Sederhana*	Above Average *Lebih Daripada Sederhana*	Master *Menguasai*
	General Computer Knowledge *Pengetahuan Am Komputer*					
1	Log-on, log-off, open, use and close programs. *Log masuk, log keluar, membuka, mengguna dan menutup program.*					
2	Use the functions of the left and right mouse buttons. *Menggunakan fungsi butang kiri dan kanan tetikus.*					
3	Use a mouse to "drag" an item. *Menggunakan tetikus untuk mennyeret sesuatu item.*					
4	Open up more than one program at a time and move quickly between them. *Membuka lebih daripada satu program serentak dan bergerak dengan cepat di antaranya.*					
5	Adjust a monitor (resize or change display properties). *Mengubahsuai monitor (Mengubah saiz atau mengubah properti paparan).*					
	File Management *Pengurusan Fail*					
6	Search for a file on a computer. *Mencari fail pada komputer.*					
7	Create a folder. *Menghasilkan folder.*					
8	Create a shortcut on the desktop. *Menghasilkan jalan pintas pada desktop.*					

	Task *Tugas*	Present Level of Computer Literacy *Tahap Literasi Komputer Sekarang*				
		None *Tiada*	Little *Sedikit*	Average *Sederhana*	Above Average *Lebih Daripada Sederhana*	Master *Menguasai*
9	Save files to a desktop, folder, hard drive or floppy disk. *Mengimpan fail pada desktop, folder, cakera keras atau cakera liut..*					
10	Copy documents from a hard disk to a floppy disk and vice versa. *Menyalin documen dari cakera keras ke cakera liut dan sebaliknya.*					
11	Word Processing (eg. MS Word) *Pemprosesan Perkataan (cth. MS Word)* Insert, remove, modify margins, tabs, headers, footers, page numbers and line spacing in a word processor. *Mengisip, mengalih, menubahsuai jidar, tab, kepala, kaki, nombor kuka surat dan jarak dalam pemproses perkataan.*					
12	Edit, copy, cut and paste a block of text. *Menyunting, menyalin, memotong dan menampal blok teks.*					
13	Change text fonts, size, colour and style. *Menukar saiz, warna dan stail fon teks.*					
14	Create a table in a word processor. *Menghasilkan jadual dalam pemproses perkataan.*					

	_____ _____					
17	Use an electronic address book to store individual and group e-mail addresses. *Menggunakan buku alamat electronik untuk mengimpan alamat e-mel individu dan kumpulan.*					
18	Set up e-mail preferences related to delivery, formatting, spellcheck, security, and message or file management. *Memasang keutamaan e-mel berkaitan denagn penghataran, format, semakan ejaan, keselamatan, pengurusan mesej atau fail.*					
19	Send an attachment as part of e-mail. *Menghantar lampiran sebagai sebahagian daripada e-mel.*					

	Task *Tugas*	Present Level of Computer Literacy *Tahap Literasi Komputer Sekarang* None *Tiada*	Little *Sedikit*	Average *Sederhana*	Above Average *Lebih Daripada Sederhana*	Master *Menguasai*
15	Insert graphics and other files (spreadsheets, other documents) into a document. *Mengisipkan grafik dan fail-fail lain (hamparan elektronik, dokumen-dokumen lain) ke dalam dokumen.* Communication (eg. E-mail) *Komunikasi (cth. E-mel)*					
16	Compose, send, reply to and forward e-mails. *Mengarang, menghantar, membalas dan memajukan e-mel.*					

	Task *Tugas*	*Present Level of Computer Literacy* *Tahap Literasi Komputer Sekarang*				
		None *Tiada*	Little *Sedikit*	Average *Sederhana*	Above average *Melebihi sederhana*	Master *Menguasai*
20	Download and open files received from others. *Memuat turun dan membuka fail yang diterima daripada orang lain.*					
21	Internet Skills *Kemahiran Internet* Use a browser (eg. Internet *Explorer or Netscape).* *Menggunakan "browser" (Internet Explorer atau Netscape)*					
22	Use a search engine (eg. Yahoo, Alta Vista, Google, etc). *Menggunakan enjin pencari (cth, Yahoo, Alta Vista, Google, dll).*					
23	Save or print a web page. *Menyimpan atau mencetak laman web.*					
24	Customize a Web browser (security settings, tool bars, home page, etc) *Mengubahsuai Web browser (keselamatan, bar alatan, laman utama dll.)*					
25	View, download, decompress, and open documents and programs from Internet. *Melihat, memuat turun, dekompres,dan membuka dokumen dan program dari Internet*					

Task *Tugas*		*Present Level of Computer Literacy* ***Tahap Literasi Komputer Sekarang***				
		None *Tiada*	Little *Sedikit*	Average *Sederhana*	Above average *Melebihi sederhana*	Master *Menguasai*
26	Spreadsheet (eg. MS Excel) *Hamparan Elektronik (cth. MS Excel)* Create a simple spreadsheet with rows and columns. *Menghasilkan hamparan electronik dengan baris dan lajur.*					
27	Move and scroll through a spreadsheet. *Bergerak dan skrol pada hamparan electronik.*					
28	Insert and delete rows and columns. *Mengisip dan menghapuskan baris dan lajur.*					
29	Create a formula (eg. Using SUM or AVERAGE functions). *Menghasilkan formula (cth, menggunakan fungsi SUM atau AVERAGE)*					
30	Select a range of spreadsheet rows and columns and create a chart, bar graph, table or line graph. *Memilih deretan baris dan lajur dan mengadakan carta, graf bar, jadual atau graf garisan.*					
31	Presentation (eg. MS Power Point) Persembahan (cth. MS Power Point) Create presentations using wizards, design templates or blank layouts. *Menghasilkan persembahan dengan bestari, templat reka bentuk atau bentangan kosong.*					

	Task ***Tugas***	***Present Level of Computer Literacy*** ***Tahap Literasi Komputer Sekarang***				
		None *Tiada*	Little *Sedikit*	Average *Sederhana*	Above average *Melebihi sederhana*	Master *Menguasai*
32	Edit, insert slides from other presentations and resequence slides. *Menyunting, mengisipkan slaid dari persembahan lain dan menyusun semula slaid.*					
33	Change text fonts, add bullets or numbers to slides contents. *Mengubah fon teks, menambah bulet atau nombor kepada isi slaid.*					
34	Add objects and animations (eg, pictures, video clips, sound etc.) to slides. *Menambah objek and animasi (cth,gambar, Klip video, bunyi dll.) kepada slaid.*					
35	Include tables and charts in slides. *Memasukkan jadual dan carta ke dalam slaid.*					
36	Database (eg. MS Access) *Pangkalan Data (cth. MS Access)* Use table to store data. *Menggunakan jadual untuk menyimpan data.*					
37	Use form to view, enter and update data in tables. *Menggunakan borang untuk melihat, memasuk dan mengemaskini data dalam jadual.*					
38	Use query facility to find data. *Menggunakan kemudahan "query" untuk mencari data.*					

	Task ***Tugas***	***Present Level of Computer Literacy*** ***Tahap Literasi Komputer Sekarang***				
		None *Tiada*	Little *Sedikit*	Average *Sederhana*	Above average *Melebihi sederhana*	Master *Menguasai*
39	Use data access pages to view, update or analyze the data from the internet or an intranet. *Menggunakan laman capaian data untuk melihat, mengemaskini atau menganalisis data dari internet atau intranet.*					
40	To print selected data from databases. *Mencetak data terpilih dari pangkalan data..*					

Section C: Job Performance

Bahagian C: Prestasi Kerja

Please read the list about job performance and tick *(√)* only **one** response that best describes your perception.

*Sila baca senarai tentang prestasi kerja dan tandakan (√) pada **satu** respon yang paling tepat menggambarkan pandangan anda.*

1	2	3	4	5
Strongly disagree *Sangat tidak bersetuju*	Disagree *Tidak setuju*	Neutral *Neutral*	Agree *Setuju*	Strongly agree *Sangat setuju*

		1	2	3	4	5
1	I am always assigned with important tasks. *Saya sentiasa diamanahkan dengan kerja-kerja penting.*					
2	I maintain a high attendance rate. *Saya mengekalkan tahap kehadiran yang tinggi.*					
3	I always do my job well. *Saya sentiasa melakukan tugas saya dengan baik.*					
4	I am always being chosen to be other coworkers' example. *Saya selalu dijadikan teladan kepada rakan sekerja lain.*					
5	I always try hard to perform the best in my work. *Saya sentiasa berusaha untuk melakukan kerja terbaik.*					
6	I am willing to do overtime work. *Saya sedia kerja berlebihan masa.*					
7	I am willing to do extra work. *Saya sudi melakukan kerja tambahan.*					
8	I do not daydream on the job. *Saya tidak berfikir tentang perkara lain semasa bertugas.*					
9	My works always satisfy the top management. *Kerja saya sentiasa memuaskan hati pihak atasan.*					
10	I never fail to complete my work on time. *Saya tidak pernah gagal menyiapkan kerja dalam masa yang ditetapkan.*					
11	I always follow the order from top management. *Saya sentiasa mematuhi arahan pihak atasan.*					
12	I never come to work late and leave earlier. *Saya tidak pernah datang lewat dan balik awal.*					

THANK YOU ***TERIMA KASIH***

APPENDIX C

MSc HRD
FLEXI-TIME KOHORT 2
Fakulti Sains Kognitif & Pembangunan Manusia,
Universiti Malaysia Sarawwak,
94300 Kota Samarahan,
Sarawak.

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6 Januari 2003

Tuan/Puan,

Kajian Rintis

Kajian ini bertujuan untuk menentukan kebolehpercayaan (reliability) item-item yang terkandung di dalam Borang Kaji Selidik yang akan digunakan untuk mengumpul data tentang literasi komputer dan prestasi kerja di kalangan pembantu tadbir di DBKU nanti.

Borang kaji selidik ini terbahagi kepada:

Bahagian A: Maklumat Latar Belakang

Bahagian B: Literasi Komputer

Bahagian C: Prestasi Kerja

Kajian rintis ini bukan satu ujian. Namun begitu, jawapan ikhlas daripada tuan/puan adalah sangat dihargai. Segala maklumat kajian ini adalah sulit dan hanya digunakan untuk tujuan akademik sahaja.

Sila tandakan respon anda dengan tanda (√) dan jawab semua item.

Kerjasama tuan/puan didahului dengan ribuan terima kasih.

Sekian.

Yang benar,

(CHEE KIN SIONG)
630808-13-5191

APPENDIX D

Fakulti Sains Kognitif dan Pembangunan Manusia
Faculty of Cognitive Sciences and Human Development

UNIVERSITI MALAYSIA SARAWAK

94300 Kota Samarahan
Sarawak Malaysia
Tel : 60 82 671000
Fax : 60 82 672281

UNIMAS-Fx/HRD/12-01

12 June 2002

Dewan Bandaraya Kuching Utara
Bukit Siol, Jalan Semariang
93050 Petra Jaya, Kuching
Sarawak.
Attention : Miss Zurima Safian

Dear Miss

Permission to Collect Data for Academic Research in Partial Fulfillment of Postgraduate Degree

With reference to the above matter, I would like to request permission for the following student from the Faculty of Cognitive Science and Human Development, Universiti Malaysia Sarawak to collect data for academic research at your organization in partial fulfillment of his Postgraduate Degree – Master of Science (Human Resource Development).

Name	: Chee Kin Siong (00-02-0514)
Research Topic	: The Realtionship Between ICT Competency Levels And Work Performance Among The Clerical Staffs In Dewan Bandaraya Kuching Utara (DBKU)
Supervisor	: Mr. Teh Chee Siong
Telephone / Fax No	: 082-679276 / 082-672281
E-mail	: csteh@fcs.unimas.my

This research is purely for academic purposes and all information will be treated as strictly confidential. The support and cooperation given by your organization for the success of this research is highly appreciated. We hope to receive a favorable reply from you as soon as possible.

Yours faithfully

Leniiw Roman
Coordinator
Program MSc HRD Flexi-Time

Fakulti Sains Kognitif dan Pembangunan Manusia
Faculty of Cognitive Sciences and Human Development

UNIVERSITI MALAYSIA SARAWAK

94300 Kota Samarahan
Sarawak Malaysia
Tel + 60 82 671000
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UNIMAS-MSc/HRD/12-01(03)

25 Januari 2003

Pegawai Daerah
Majlis Daerah Bau
Sarawak

Tuan

Permohonan Menjalankan Ujian Rintis

Dengan ini disahkan bahawa Chee Kin Siong (00-02-0514) adalah pelajar Tahun Akhir (Semester 6) Sarjana Sains (Pembangunan Sumber Manusia) di Fakulti Sains Kognitif dan Pembangunan Manusia. Beliau diperlukan menjalankan kajian dan menyiapkan Tesis (KMS 6999) untuk memenuhi syarat bergraduat bagi program tersebut di atas.

Maklumat lanjut tentang kajian adalah seperti berikut :

Tajuk Kajian	:	*Relationship Between Computer Literacy and Job Performance among the Administrative Assistants in Dewan Bandaraya Kuching Utara*
Penyelia	:	Encik Hong Kian Sam
Perhubungan	:	082-67100 samb. 409
E-mel	:	hksam@fcs.unimas.my

Sehubungan itu, sukacita kiranya pihak tuan dapat memberikan kerjasama kepada pelajar tersebut bagi membolehkan beliau menjalankan ujian rintis bagi mendapatkan maklumat yang diperlukan. Ujian ini adalah untuk tujuan akademik semata-mata.

Sekian, di atas segala pertolongan dan kerjasama yang diberikan oleh pihak tuan, kami dahului ucapan terima kasih.

Yang benar

Abang Ekhsan bin Abang Othman
Dekan