CHAPTER 6

CONCLUSIONS

AND

RECOMMENDATIONS
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CONCLUSIONS AND RECOMMENDATIONS

In this chapter the conclusions are given in detail whereas the results were presented in the previous chapter. The findings of the study are also provided in this chapter. Moreover, it contains observations and recommendations for further studies. In brief, this chapter presented two parts of the main findings that emerged from the research, they are conclusion and recommendations. The descriptive research basically explains on the usage of the Internet among state university students in the North of Thailand in 2003. The investigation in the study was carried out on state university students in the North of Thailand at six universities, i.e. Chiangmai, Maejo, Mae Fah Luang, Naresuan, Ramkamhang (Phrae campus) and Thammasat (Lampang campus).

The limitation of the study are as follows: 1) It is due to the financial and time constraints, the survey of the thesis was able to conducted only within the aforementioned six universities. The outcome of the research, through could represent the universities in Thailand as a whole, may not present the exact or definite picture of other universities. In short, the survey could provide merely the board picture of the Internet use of the respondents in other universities. 2) As the research was conducted during the 2003-2004 academic years, the result of the research may only reflect the facts of the Internet using during the mentioned period. It may not be able to applied for the following period.

The objectives of the research were to find out the IT and Internet awareness among the students, the area of interest and how they shift to Internet, kind of information that university students would like to download and their satisfaction rate, the advance usage of Internet and web designing, the evaluate the Internet usage and the benefits acquire and the problem faced by students in using Internet. The hypothesis test found that the respondents learn to use the Internet from their friends rather than other sources. Majority of the students upgrade their knowledge about the Internet networking at libraries and mostly they use the website from Thailand.

The questionnaire was applied as an instrument or a tool for data collection. Later, the data was analyzed with the Statistical Package for Social Science program (SPSS for Windows version 10) The total population is 57,462. Samples were
selected from the population by simple random sampling techniques. In this regard, the table of Yamane was used to determine the sample size. According to the table, the appropriate number of samples for a population of 57,462 is 397. As it is behind that the more samples we get, the more information we gain, the researcher added double number for sampling. So the total number of samples was 800. Among 800 questionnaires distributed, 652 (81.5 per cent) responded. After analysing and interpreting the available data and information, the researcher has come out with conclusions and recommendations.

6.1 Conclusions

The findings reveal the present status of the samples selected as representatives of state university students in the North of Thailand. 800 questionnaires were distributed to undergraduate and graduate students, out of which 652 (81.5 %) responded. Thus, 652 students represent six universities in the North of Thailand for the survey research. Out of 652 students, 363 were female, i.e. 55.7 % and 289 were male, i.e. 44.3 %. The majority of the students, i.e. 82.7 % were undergraduates and 17.3 % were graduates. There was an equal share of the students from Science and Technology as well as Social Science where students of Science and Technology is 49.1 % and students of Social Science 50.9 %.

Even though the research was conducted in the six universities of the North of Thailand but the major information was collected from Naresuan, Chiangmai and Maejo University. Thammasat, (Lampang Campus) Ramkamhang (Phrae Campus) and MaeFaluang University had fewer respondents because Thammasat and Ramkamhang are extended campuses and MaeFaluang is a new university. Ramkamhang and Thammasat universities main of campuses are located in Bangkok, it is not in the North of Thailand that is why main campuses of these two universities are excluded. The finding are concluded and interpreted as follows:

The monthly income of the students’ parents i.e. 64 % which is lower than 20,000 Baht. The rest of the respondents, i.e. 235 students’ parents earned more than 20,000 Baht per month. Out of 652 students who responded, 350 students, i.e. 53.8 % have their personal computer at home and 301 students, i.e. 46.2 % do not have personal computer. The parents of the respondents who earn more than 20,000 Baht
per month, may perhaps buy personal computer for their children because they have enough money and realise the important of computer for education. It does not mean the parents who earn lower than 20,000 Baht per month can not buy personal computer. They may purchase if they realise the important of computer because the price of a computer at present is not too expensive.

6.1.1 The information technology awareness

It is found that 53.8 % students owned a personal computer at home. The finding appears thus, partly because computer is an important appliance in daily life of the Thais. It has been extensively and widely used for education, commerce and recreation. With the advancement of information technology, the price of computer in general has consistently decreased, while its capacity became more efficient. Due to this reason, it motivates quite a number of students to possess it.

Though 53.8 % students have owned personal computer at home but out of which 49.7 % used computers outside home. The fact is that 80 % of the students come from different parts of Thailand and hence, have to stay in the hostels, perhaps this is the major factor that determine the finding of this research. It is observed that those students, who stay in the hostels, were not able to use electricity in their rooms due to the limitation of electricity supply. The reason attributing to the use of the Internet and computer outside homes of the students could be the excessive expenditure for them and the students have to burden themselves if they decided to use computers and Internet at home. Besides, the students have already paid fees for the use of Internet and computer while registering for the use of the Internet and computer provided by the universities, it becomes more economic. Further, the time available in the university would be another crucial factor that determines the use of the Internet and computer in the campus.

It is clear after the analysis that almost all students took some computing or information technology class or courses at high schools level. They acquired ‘basic knowledge of computer’ provided by the school. Since Thai government realized the significance of information technology, the curriculum of the high school consists of computer fundamentals or an information subject related to computer technology. It is observed that even at primary level, the computer or information technology is essential even though computer courses are conducted in some schools.
For those who didn't take any computing programme, they may come from a
school in remote area, which is scant both in budget and staff. However, the entrance
examination system in Thailand doesn't require computer test before studying in Thai
universities. It is believed that students can learn about computer and Internet in
universities, even though they didn't have any background in high school.
Notwithstanding, Thai government is trying to arrange computer courses and Internet
connection for all school in Thailand, as we can see the details from SchoolNet
Project in Chapter 2. The project supports the human resources development emphasis
of the 8th National Economic and Social Development Plan as well as the National IT
2000 Plan.

It is suggested that, despite the support of the Thai government on computer or
information technology course, the high schools still encounter the problem of lack of
staff and insufficiency of computers and peripheral materials. To solve this difficulty,
the Thai government has to offer financial assistance, material and staff to the high
schools to develop and increase the level of IT education all over Thailand. Extra care
must be taken, particularly in the schools of the remote area.

Regarding the kind of programme students studied at high school level, a
majority of them, i.e. 42.8 % studied Word processing as it benefits them for typing,
editing, simple calculating, etc. They chose it because it provided the basic knowledge
to other programmes like the set programme of 'Microsoft office programme'. The
popularity of the programme and its simplicity would perhaps be another reason that
make both the students and the teachers access easily. As the teachers play an
important role in influencing the choice of the students, the students in general
willingly study 'word programme'.

From the research findings, it was surprising to find that the majority of the
students surveyed have never received any previous computing courses from any
institutes even though they are making considerable use of the Internet on a regular
basis. Although, it is quite clear that the specific training of the Internet and computer
usage will be required to use Internet and search information required for the benefit
of those students who wish to enhance their learning skills and knowledge.
6.1.2 Internet awareness

It is observed that 83.3% of students took some computing or information technology class at high school but they took different period of times to learn. Some of them took less than 25 hours, some took less than 50 hours and some took more than 50 hours. Due to these reasons, they had different background in using computer and Internet; therefore, they rated their knowledge on Internet in different categories. One important fact is that the majority of students’ self rating on Internet knowledge as intermediate users. Intermediate means not higher not lower. The reason behind this category is that the Thai people are humble. They don’t like to show their capabilities to others, especially when somebody asks them to rate their capacities by themselves.

The main cause of introduction to Internet and its services provided by the Internet system is ‘word of mouth’, specifically the suggestion from friends. It stands that friends will discuss this more than family members, and that peers have considerable influence on the students to use Internet.

Almost all students in Thailand prefer information in Thai language. It is because of Thai language is an official and national language in Thailand, while English is a subject in each curriculum. There is no doubt that a major information available in Thai language. Even in libraries, the majority of books are available in Thai language as compare to English language. Although, students in Thailand still use information in English but much of their reading, etc. is done in Thai language. English is the main medium of information all over the world. The Internet was born in America and is being used everywhere in the world. If students want to learn more about the Internet, they should study not only in Thai language but also English language, because it is very useful and essential for them to obtain knowledge.

It is revealed from the data collected that the top three familiarities about computer and the use of Internet among students were E-mail, WWW and chat. This is because E-mail is considered the most convenient channel to communicate electronically with people all over the world. Due to it’s high speed it helps the users to contact others irrespective of time and place. The users need to know merely an E-mail address to operate the mail. The communication via the Internet at present is one of the basic needs of modern society apart from the basic requirement of food, medicin, cloth and residence. The finding reveals that an E-mail is the first choice of
the respondents based on their familiarity with the Internet and computer. It is clear that E-mails can encourage students to improve their skill in using the Internet, as it is easy to use. Students and teachers communicated with each other quickly and can send information through E-mail.

Regarding the experience of the students using the Internet, majority of the students informed that they had been using the Internet for around 2-3 years and spent time in using it approximately 2-3 hours per week. It owes to the fact that during the past three years almost all universities in the North of Thailand provided Internet services and facilities for all the students. These average hours were based on the fact that the university decided to give equal access of computers to all students since they paid fees for use of Internet. A large group of students use the Internet for more than seven hours per week, they may use the Internet not only in campus but outside too. It means that they use the Internet for about more than one hour per day. They may use for their assignment, education, entertainment, etc. Presently, it is an essential part of life to check E-mail everyday, when we start computer.

Concerning the time interval the respondent use the Internet the most, the majority of them come under 9 a.m. – 9 p.m. because that was when the Internet service rooms opened up at the universities. According to the time accessed on the Internet, the number of users are the highest at 12 noon – 3 p.m., which is their leisure either after or before their classes. 12 noon- 1 p.m. is usually the lunch break in Thailand. Due to this reason, some students are in hurry to finish their lunch or some students may ignore their lunch. Instead of relaxing during lunch, they spent time using the Internet. Normal time schedule in Thai Universities is from 8 a.m. to 4 p.m. Moreover, there are different sessions for the students in university. The students come to the Internet service room whenever they have free time and convenient for them to learn Internet or study and access the information which is useful for their study.

It is indicated that the Internet access for the majority of the students actually substituted by watching television. The fact that the students are teenagers who preferred interaction communication rather than one-way communication, stipulate them to choose Internet, not television. It is possible to state that as the activity of watching television concerns only viewing, whereas, the Internet involves various
kinds of actions, thus, the Internet attracts the attention of the students more than the television.

6.1.3 The area of interest of the respondents

It is found that the top three reasons behind using the Internet during the week were entertainment, followed by reading news/enhancing knowledge and searching information for research. The other reasons were searching for library information i.e. catalogue, services, databases, etc., searching information of curriculum for student and university information and chatting.

It is apparent from the finding that it may well be beneficial to encourage all students to participate in using the Internet. From the ‘entertainment’ aspect of the Internet, it is possible for them in a greater interest in ‘gaining knowledge’ and ‘applying that knowledge’ to develop skill to use the Internet. It seems that computers can now be used to understand and search more quickly than books. Students can chat at anytime, listen songs and discuss anything with anybody. Student can gain useful knowledge from the entertainment they watch or read and teachers should integrate this into the curriculum and encourage its use to maximize students’ learning. By using multimedia voice and other facilities, students can learn effectively.

According to the majority of the students, the primary reason for using the Internet was for their education. This would indicate that the students use the Internet for their study. Therefore, they use the Internet as a resource which is available 24 hours and free of charge (in the universities). To promote the use of the Internet, the active involvement of teachers in guiding the programme is needed. Teachers need to anticipate and offer the basic support to help the students, particularly at the beginning. The help may be in the form of handouts that show practically, in detail how to use a web browser or send an E-mail, or designing web sites, where students can post comments about subjects, even a page for homework assignments and which are the useful search engines to assist them with reports or homework. Due to these reasons the use of the Internet can help students to understand in a better way on how to use the Internet for their educational purpose.

From this finding, through the Internet, information can be accessed not only from one place but from any place, from all over the world. It is appreciated in terms of its usefulness towards education. It allows the students to read, write and think on
the spot while offering their opinion and ideas in a common pool of experience, ask questions or post questions on web sites such as FAQ. Therefore, activities on the Internet should be integrated into the overall education programme, including the ongoing structure of homework and classroom interaction so that the results can be more effective educationally.

In spite of more than half of the students owning a personal computer at home, 68.6% students usually use or access the Internet at the university. Out of which, 24.3% are using the Internet at the central libraries. According to observation, all the universities in the North of Thailand provide Internet services to their students. Generally, the central libraries are located in the centre of the university, so it has become quite easy for the students to go there and access the Internet.

It is suggested that students should receive more support from the universities and the universities in turn should realize the potential of this new learning and use it to benefit the learners.

It is clear that the Internet is an important tool for education as it enables students to meet their intellectual, academic requirements and social needs, it maximizes the educational benefit. It is obvious that having a sufficient number of computers and Internet connections available in university will augment the opportunities to develop students’ learning skills, as more students are given access to the Internet.

Basically, Internet services available for all students in the university, but 604 students, i.e. 92.6% were aware about the Internet services for students in the university and only 48 students, i.e. 7.4% were ignorant about it. It is observed that all universities in the North of Thailand informed the public through public relations before the students entered the universities. The programmes of public relations include Board meeting information, meeting the students, announcement or advertisement through the media, orientation programme user education, etc. Since the Internet services in the universities are regarded as an important part of university’s development, it is necessary for the universities to include it in the public relation.

Regarding the information resources about the Internet services for students in the university, 30.1% students know about Internet resources information from their friends/word of mouth and 23% from library. Almost all the students were well
informed in advance about the Internet services provided to them in the universities at the time of their admission. The universities served information about Internet services through the university’s newsletters, university journals, university newspapers, etc. Along with the aforementioned medium, all the universities in the North of Thailand included a course of Internet training for the new students. It was a short course giving only brief knowledge on how to use the Internet. Further, all students have to study the subject of ‘Introduction to Computer’, which trains them in both theory and practice. Moreover, the computer and Internet clubs existing in some universities also help the universities to promote information about the Internet.

According to observation, information through friends and word-of-mouth were an important source for the students, partly, because the students are teenagers. They feel more familiar with friends while inquiring about information than others as they usually spent their free time together.

Although all the respondents were university students but only 385 students i.e. 59 % had Internet account with the university, the rest 41 % did not have an account. The reason behind this was that some university students who study in Naresuan, Maejo, Ramkamheang (Phrae campus) and Thammasat (Lampang campus) can use Internet without an Internet account at anywhere in the universities. They just showed the I.D. card and signed their name in the given forms, without using the user names and passwords, they could access the Internet automatically. Due to this reason, some students were not interested in opening their account from the university.

It is suggested that all universities should restrict Internet use for students who do not have Internet account. Students should have and use their own account because it is easy for university to know the statistic of Internet usage. Thus, the university can provide Internet services for students use. It means the university can supply the requirement of students. Besides, students must take responsibility with their Internet account such as follow the usage rules of university, do not spread virus programme, use it in proper way, etc.

It is found that the major reason for opening an Internet account was to search information i.e. 23.7 % because Internet is compared to the roads of knowledge or the information superhighway. It has much instruction to offer to the students. It also provides unlimited input for the student. It awakens curiosity and learning capacity.
among them. The Internet, thus, expands the knowledge for the students both in academic and technology. In brief, through the Internet, the learning of the students either in academic or technology is comprehensive and convenient as they can learn it anytime and anywhere.

By studying the various Internet services, it is found that students mentioned Internet services that they used while on-line were WWW, E-mail and chat, respectively. The responses were a little bit different between the familiarity and the usage of the Internet. However, the top three Internet services were still WWW, E-mail and chat. There are quite a number of Internet services in Thailand, they are telnet, usenet, FTP, shopping on-line, auctioning, playing computer games on-line, etc. but WWW is the popular Internet service that the students prefer to use while on-line.

In respect to the chat programme, finding show that the percentage of the students using the chat programme is 81 %, which is much higher than those who did not use it due to various reasons. At the beginning, the facilities of Internet services offered for students’ chatting is convenient and cheaper than telephone. They know about their friends through ‘chatting-style of writing’, instead of talking through phone. Further, when compare with telephone, the expenditure of chatting is much cheaper. As a result, the students can spend longer time while chatting than calling on the telephone. Referring to chat programme in particular, the majority of the students explained that the chat programme commonly used by them was IRC (Internet Relay Chat). It is popular among them.

Considering the choices of browsers, most of the students i.e. 91.9 % pointed out that they used the Internet Explorer. The finding appears as such mainly because Microsoft has whittled away Netscape in the market of browser competition. Internet Explorer may be easy to use and it may have a lot of facilities than others browsers. Moreover, it bundles with Windows Operating programme, which is most popular among Operating System that is available in Thailand.

websites because they are teenaged university students who like enjoyment. Some websites they mentioned are related to free e-mail services.

Some students who mentioned academic website, they perhaps access university websites because they would like to know information about their universities in terms of the movements, news, teachers’ homepage, department’s homepage, register, bulletin board, etc. In additions, they mentioned seven websites that are original Thai while three websites are international websites. It shown that students prefer to access websites in Thai than English. Because Thai is an official language and national language and it is used as a medium for teaching and studying in university in ordinary curricula.

With reference to the Navigator/Search engines, the majority of the students answered that generally they used Google, followed by Yahoo and then any local or smaller search engines. It is understood that the Google Navigator/Search engines web site has a greater attraction for the students because it has many facilities. In addition, they can search for and find the relevant information from an unlimited number of foreign countries. Sanook is a Thai vernacular search engine that was second in preference for vernacular search engine among students whose English is not so good, it is popular among Thai students because it provides information and links to Thai web sites.

6.1.4 The information to download and satisfaction rate

The purpose of this study is to know about kind of information download by the students. Results shows that the majority of the students seldom retrieve, read or download full-text articles and peer-reviews journal on-line. The students occasionally used the above mentioned information when they had an academic need or for educational purpose.

It is also found that students can download information through the Internet anywhere in the universities where the Internet services were provided. However, they could not download information into floppy disc or CD by themselves in some universities, due to the security system preventing virus from students’ floppy discs. To avoid using their own floppy disc, Internet services centres sold floppy discs to the students. In the aspect of copying information into CD, some universities did not allow students to do it by themselves because CD-writer that was available in
computer rooms were not enough for all. They had to request the staff and pay for the copying/downloading service.

In addition, all universities in the North of Thailand made available all kind of printers for students to get print-outs for which they have to pay a fee of one or two Baht per page which depends on the policy in each university. But the charges are cheaper for students as compare to outside the campus. It is on non-profit basis.

Many file formats are available on the Internet. Among these formats, the study found that the text was the popular type of format downloaded by the students; which is followed by picture and full-text, respectively. This is due to the fact that a large proportion of Information on the Internet is in the form of text. It is worth noticing that the students make use of text for their education. Students also downloaded pictures whenever they need to include pictures for their presentations.

It is indicated that the majority of the students, i.e. 76.1 % felt that the information retrieved from the Internet was sufficient for their need as they could search any information from any part of the world. Further, the development of search engines also helped the students to find out the needed-information easily by using advance search tool. One more reason was that 82.4 % were under graduates students who need basic information from the Internet. On the other hand, 113 students who replied that the information they retrieved from the Internet was not sufficient. There may be graduates who want specific information required for their researches, experiments, investigation, etc.

### 6.1.5 The advance usage of Internet and web designing

In case of web designing, findings shows that out of 652 respondents, 268 respondents created web pages, it means they acquired the knowledge on how to create or design a web page. They might have learnt web page designing outside the university. Furthermore, all universities in Thailand have designed extra courses about computer and the use of Internet for students, staff and outsiders by charging an economised tuition fee for students, no charges for staff and normal charges for outsiders (but cheaper than private computer institutions). Creating and designing a web page is one of the examples for computer’s extra course in universities. Students can study more information on computer and Internet as per their intention. In this
respect, most of the students who created a web page claimed that they used HTML code for creating a web page.

It is suggested that all universities should provide manuals or information on how to create a web page on the university homepages for students. They may do so by hyperlink to some websites that have user guides or where designing a web page is available, by downloading the user guide anybody can learn how to design a web page easily.

The study reports that the majority of them improved their Internet knowledge at the library. It is due to the fact that the nature and function of the university libraries are changing. Traditionally dominated by printed materials, academic libraries have been vast warehouses of published knowledge, storing publications. But now, with the evolution of the Internet and with the continued development of electronic databases and CD-ROM technologies, libraries are becoming access points to knowledge which is not in the print form and not held in the library itself.

Concerning the method to improve the knowledge about the Internet. It is revealed that the majority of them clarified that they improved their knowledge by exchanging knowledge with their friends. The fact is, the students in the universities share their Internet knowledge, experience among similar age group students. This would perhaps explain as to why friends are an important factor in the process of developing Internet knowledge. Besides, as the students usually spend more time with their friends than others, they naturally exchange the knowledge of Internet among themselves. On the contrary, there were only 8.1% who improved their knowledge by studying more about the Internet function and consulting the instructors from the university centre. Students may feel scared to ask their teachers to clarify their doubts and some teachers may have a heavy work load, due to this reason the students are unable to approach them.

6.1.6 The Internet usage and the benefits acquire

The purpose of the study was also to evaluate Internet usage and to study the benefits acquired by university students. The result shows that 489 students, i.e. 75% used the Internet for studying and only 163 students, i.e. 25% did not use.

Considering the students' attitude towards the use of the Internet in general, almost all of them agree that it is necessary for education, and to a certain extent
important in their life as a whole. The Internet, therefore, provides plenty of information to the students. Anyone can easily access, irrespective of their gender or age. It is noticed that it functions as the source of education and knowledge for the students. The students not only study from the classrooms, but also learn through the Internet. For those who felt that the Internet was unnecessary, they may be lazy to learn/use computer and Internet.

It is indicated that more than half of the students felt that the Internet was fairly important in their daily life. The students who rated the Internet as being important in their lives, think the amount of information available through the Internet could help them to apply in their daily life. It has made their lives better, cheaper, faster, more convenient, easy, etc.

From the detailed study made regarding the students' attitude toward the use of Internet. From the study the top three attitudes are rated as follows:

i. Own personal computer makes it easier for studying the Internet system.
ii. Internet is an important part for social development at the present time.
iii. Internet is a friend of the people who always use a computer to keep them away from loneliness.

The first statement is asked because the students, who have their own personal computer, can spend more time using computer, than those who do not have. It is assumed that the students who own a personal computer are able to access Internet much easier than the ones, who do not own. For this reason, they can learn and try many activities on the Internet at any time, according to their interest. Unlike the students who own a personal computer, students who do not have one seem to have less choice in selecting the Internet activities. The students in the latter group, very often depend on the computers of the universities, they are not able to access certain websites, which are prohibited by the universities.

The second statement is one of the most important questions for the research because at present, the development of computer and telecommunication has made an impact on the communication of today's world, especially the Internet, which is one of the most innovation technology among them. The Internet could help people who live in different parts of the country or continent to contact each other at the real time. The Internet, further, has an impact on the advancement of education, economic, entertainment, military, etc. It is widely believed that the more information we get, the
more power we gain. The ones who are able to access information both quantitatively and qualitatively, naturally would make better decision than those who lack information.

The third statement is needed for the study owing to the fact that Internet plays an essential role in being a company for those who use the Internet as relief from their loneliness. In this point, it is observed that when we sit in front of the computer, we are no more lonely since its multi-function can entertain us in many respects. Even when we work alone in the office, if we access the Internet, we hardly feel lonely. Moreover, the indirect communication (not face to face) served by the Internet helps people to save time and energy from contacting each others.

The study on the usefulness of Internet reveals that the top three benefits of using the Internet as given in the statements, are as follows:

i. To use for searching information about studying abroad.
ii. To use for searching library information.
iii. To use for printing e.g. newsletter and other materials, etc.

The first statement was questioned because very often the students would search for information to do their further studies abroad. In this regard, the Internet functions as the channel to access the details of education of the higher academic institutes. The students have come to know not merely basic information on curriculums, admissions, facilities, fees, etc. but also can contact those universities via Internet network directly if they decide to study there. The Internet network, therefore, helps them to save time and money regarding this matter.

The second statement was based on the fact that Internet network is a centre which collects information from many libraries all over the world. So the students can access the available library information through on-line libraries or electronic libraries, directly. The material obtained from the on-line libraries includes books, journals, printed and non-printed materials, etc. In addition, the students can contact librarians of the on-line libraries via e-mail and webboard. In Thailand, there are some libraries that provide renewal books services, reserve books services for their students, too.

The third statement was examined because the students can receive newsletters and other materials via the Internet. As the Internet has the capacity to distribute news and information, students who are interested in the same topic can
share information. They can send, spread, receive and exchange the news and information rapidly and easily. Almost all information received from newsletters and other materials are generally conversation, inquiry, discussion, exchange data about new project, biodata, appointments and sending a file to those who share the same interest.

6.1.7 The problems faced by students in using Internet.

By studying several of the problems, it is observed that while using the Internet, difficulties/problems faced by the students were as follows: Firstly, it takes a long time to view/download pages. Secondly, there were limited number of computers and Internet connections. Thirdly, students were given a limitation time period to use the Internet in the university. They faced the problem of low speed network because they very often used the Internet at the same time. Thus, they had to share the same channel for communication. The inefficient hardware was also another factor that caused the problem of download or viewing information. Further, the same problem would be derived from the inability of the servers to send, receive, and exchange bulky files at the same time.

In addition other problems that students faced consisted of did not understand foreign languages, high cost, lack of support staff, difficult to find sufficient/appropriate information, sites require user to register with them, lack of general knowledge of using the Internet, too many “junk” sites and “junk” mails, sites with too many graphics or useless graphics, malfunction of computers and Internet connection, limitation of the access to some services on Internet, information on the Internet is not trustful, did not connect through the time, encountering sites that want users to pay to access information, do not locate where users are (e.g. lost in cyberspace problem), lack of demonstration/training about Internet services and encountering rough tongue while communicating on the Internet.

It is noteworthy to note that physical pain is one of the main problems faced by the students while using the Internet. Among those physical pains, the top three were sore eyes, pain in neck, headache, and backache. However, as most of the students are very young, they rated the extent of physical pain only at a moderate and low level. The students did not encounter the physical pain at the high level due to the fact that they are still young and active. To reduce their pain, students should use
Internet in proper manner and take proper precaution. There are some materials to decrease their pain, they are LCD monitor, sunglasses, ray filter, etc.

Findings regarding the students' rating themselves as Internet addicts, a large percentage 74.2 % considered themselves as non-addicts and 11.5 % consider themselves as Internet addicts. Out of 652 students, 75 students responded, 45 students do not required any help. Remaining students, i.e. 30 students require medical and social treatment while accessing Internet.

6.2 Recommendations

Recommendations for awareness and development in the field of e-knowledge, e-jobs and databases.

6.2.1 Due to IT (Information Technology) and ICT (Information and Communication Technology), the development of distance learning, countries wide classroom, e-government, etc., will receive more importance, on-line examination, on-line admission, on-line tutorial and seminars will be more powerful.

(1) It is, therefore, necessary for the students of the later generation to be acquainted with ICT to be able to handle the situation properly.

(2) It is recommended that the graduate students should be encouraged to access appropriate information and to make use of computers for acquiring and dissemination of knowledge.

(3) Universities have to introduce in its educational curriculum subjects related to Internet technology and enhanced syllabus in this area.

6.2.2 Internet browsing will be more prominent but some tutorials must be included in the syllabus to acquire the skills in searching necessary information, thus, Internet must be included.

6.2.3 To increase the usage of computers at undergraduate level, Thai government must provide some concessions in its prices for the students. So that even common student may/can take advantage the facility.

Universities must establish centres where students may/can get access to the use computers (net cafe). Projects should be assigned to them in this area.

6.2.4. The traditional literature form i.e., printed form is shifting to digital. Hence, the digital resource products should be introduce for them which will provide
better access to information that will thereby increase research and development activities.

6.2.5 It is strongly recommended that digital information storage and retrieval should be given priority. If students at undergraduate and graduate levels are used to such facilities, they may get quicker and accurate information.

6.2.6 It is suggested that some basic course studies should be incorporated in the syllabus for digital information products and its usage etc., to increase the awareness among students.

6.2.7 A computer lab with all amenities universities must be established for students to access Internet, Intranet, etc.

6.2.8 Importance of e-mail, chat, e-group, e-forum(s) must be introduce/formed to get benefit for the students and its usage must be enhanced/updated to increase proper communication while using ICT.

6.2.9 It is also necessary to develop various databases such as thesis, special collection, etc. taking the help of students, thus, it will also make them proficient in using ICT in their respective fields of study/work.

6.2.10 On-line searching of information i.e. e-journals, databases, etc. will flourish in future as the digital libraries are developing very fast. It is, therefore, must for every undergraduate and graduate student to be trained in information technology and on-line searching of information.

6.2.11 It is recommended that adequate information technology equipment should be made available to the students. This will assist in the proper development of the students to organise literature so that it would become habitual for them to cope up with the future developments in e-education system.

6.2.12 The central, local government or the related institutions should form policies to establish digital resources.

6.2.13 It is recommended strongly that the Ministry of Human Resource Development must initiate training courses, refresher courses, etc., to gain awareness in research and development for users of information.

6.2.14 These special courses should be included to increase the awareness among the students at the university level.

6.2.15 Recommendation for the future study
(1) According to the research results, it may cause by the similarity of demographic background of the students. In order to make the studies more complete, it is recommended that the target population be expanded to include all state university students all over Thailand.

(2) Careful intention should be given to the process of introducing computers and Internet education. To assist this process, research is needed on social, psychological, organizational and management factors involved in introducing new educational technologies into the university system.

(3) We need to identify factors that influence the usage of the students. It could help in devising improved methods of communication and participation that would facilitate change and increase effectiveness of computer and Internet in education. Research is needed to provide information to assist in developing applications for computer and the Internet in the university. Research can provide insights as a new role for teacher in planning and organizing courses in universities.

(4) One of the most interesting and exciting aspects of the Internet is its openness. In theory anyone can offer information and anyone can have access to it. There are still some barriers regarding access that must be overcome and should be studied.

(5) Classroom research into how the Internet can be applied in the classroom.

(6) Comparative studies in the usage of the Internet among state university students and private university students or comparative between Thai and Indian students.

(7) Financial aspect in use of technology its growth for future need research.