

Readiness of eLearning Connectivity in Thailand

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Abstract

eLearning readiness is an initial part of eLearning development. Connectivity is an indicator of eLearning readiness which is crucial to research for effective planning. The purpose of this study was to investigate the perception of school administrators about the readiness of eLearning connectivity in Thailand. Issues related to infrastructure readiness, frequencies of teacher training, experiences of using the Internet for education and demand upon existing resources were examined. The questionnaire sent via the Internet and traditional mailing was employed for data collection. The survey revealed that almost all schools in Thailand that participated in this study used Internet for education (95%). The greatest frequency of teaching training for improving ICT literacy is once per semester. The Internet Usage and Internet Readiness of schools in Bangkok and other provinces are not equal. The provincial schools in Thailand used Internet for education slightly less than Schools in Bangkok. Crucially, the results from this current survey indicate that there is a significant gap related to Internet Readiness between schools in Bangkok (100 %) and outside Bangkok (70.6 %).

1. Introduction

eLearning has been identified to be the future of learning worldwide since the very

powerful platform of the Internet has accelerated the speed of communication. eLearning offers remarkable advantages to the economy [1] when gathering large groups of students. Based on meta-analysis research, academic achievement of online students equalized traditional instruction [2]. eLearning is not only the student preferred mode of learning but also the preference of teachers. [1]. In American institutes, eLearning has become a “critical” component of the long-term planning strategies [3].

The phenomenal growth rate of Internet users is continually increasing and will reach 18 per cent of world population by September 2007 [4]. This trend substantiates a previous study that indicated eLearning growth rate during 1999 to 2003 was 55% [5]. In fact, the largest group of Internet users in the world are high income people [6]. However, the largest group in terms of world population is represented by the developing countries. Thailand shares a similar situation with other developing countries, and the Information and Communication Technology (ICT) Master Plan (2002-2006) aims to increase the use of elearning in human resource development. [7]. Nevertheless, educational web sites experienced only 1.71 per cent which is the smallest group of visited web sites by Thai Internet users [8].

Evaluation of eLearning potential in Thailand focused upon exploring ways that schools were using the Internet for education. The purpose of this study was to investigate the perception of school administrators in terms of readiness of eLearning connectivity in Thailand. Issues related to infrastructure readiness, frequencies of teacher training, experiences of using the Internet for education and demand of facility were examined. This study did not include attempts to resolve all the issues raised but rather focused on isolating items which might serve as a focus for further discussion.

2. Literature Review

Thailand was positioned as 36th in the 2003 eLearning Readiness rankings from the world's 60 largest economies [9]. The eReadiness ranking is a report that has been published annually since 2000. In 2003, the eLearning Readiness ranking system was first published. It is the only eLearning Readiness report that is made available on the Internet without a charge. There are newer reports concerning eLearning Readiness, however, this requires a fee and could not be accessed. Both e-Readiness and eLearning Readiness reports included a sampling of 60 countries in the rank. eLearning readiness ranking criteria are integrated across four areas: connectivity, capability, content and culture [9]. Connectivity of the Internet represents the basement of the Digital Strategy since it is part of the necessary infrastructure for a 21st century economy [10]. Moreover, the Internet connection should be broadband for a greater opportunity to develop quality content and confidence in using ICT [10]. The literature review related to readiness of eLearning connectivity as outlined in this paper has been divided into two supportive aspects for eLearning: policies and resources.

2.1. Supportive policies for eLearning

The factors related to Internet connectivity have served as significant milestones for projects and policy development in many countries. One project that aims to eliminate world digital divide lines namely, "50x15" set as its mission "to enable affordable, accessible Internet connectivity and computing capabilities for 50 per cent of the world's population by the year 2015" [11]. Many governments such as New Zealand have set government targets to be a world leader in using ICT by organized a five-year- action plan namely "the Digital Strategy" which includes three enablers: connection, confidence and content [12]. World Health Organization also advised connectivity according to a group of prerequisites for "eHealth for Health-care delivery" [13]. Because Internet connection is a priority that influences eLearning possibility, many countries have considered the importance for building eLearning connectivity as a component of their ICT master plan. This demonstrates the important part for building an information based society [14].

Teacher training has become one of the important factors which influences eLearning development [9]. eLearning training is considered the best predictor which is statistically significant for both eLearning adoption and eLearning readiness in Malaysia [15]. It may be concluded that eLearning development involves both good policy development and well planned implementation strategies.

2.2. Supportive resources for eLearning

Resources that support eLearning include: human resources, computer and Internet technology resources and eLearning contents resources.

The human resources related to eLearning involved many stakeholder groups such as students, teachers, school administrators and eLearning producers. The results of a study in Turkey stated that human resources need to be the priority for development of eLearning implementation [16]. The survey conducted by NetDay in Canada presented the positive results of stakeholders in eLearning, 84 percent of teachers had an optimistic opinion toward using computer technology and the Internet was considered to enhance the quality of education [17]. Teachers both in primary and secondary schools in Hong Kong had significant different perceptions on eLearning readiness and IT competencies [18]. Differences between urban and rural areas affected the readiness of eLearning. For example, an eLearning community existed only in Cairo, the capital city of Egypt but very limited opportunity was identified in other areas [19]. Small rural schools in America experiencing a shortage of teachers in some subjects used eLearning to solve staffing problems [20].

Computer and Internet technology resources identified also influence eLearning both in theory and in practice. Imbalance in the numbers of computers installed in the schools and student access is still an obvious obstacle both in developed countries such as Hong Kong and in developing countries such as Egypt and Thailand [18, 19, 21]. The digital divide in Thailand included the infrastructure barrier which varied between Bangkok and provincial areas [21].

In Thailand, moreover, the difficulty in transforming the learning styles and limitation of adequate online content was considered an issue [21, 22]. The majority of existing eLearning Contents available are in English. Thus, eLearning Contents in non-English are highly in demand. [19, 22]. The majority of Thai students preferred using

Thai online content rather than foreign language content [22, 23] which was congruent with other countries such as France, Japan and other countries in the middle east where Arabic was preferred [19, 24].

In conclusion, the success of eLearning involves a variety of aspects. The situation of eLearning in Thailand is quite similar to other countries where there is high demand for research related to improvement.

3. Methodology

This current study used descriptive analysis to reply extensively to a survey instrument with school administrators for the 2006-2007 academic years. The two outreach methods employed to gather survey results were 1) an email invitation along with electronic-based survey form sent randomly to schools 2) a letter of invitation along with paper-based survey form sent randomly with business reply envelopes. The list of email addresses and school address was derived from Thai school portal web sites. A reminder email message was sent one month after the first message.

The major research questions for administrators that guided the study were: 1) Do the schools use the Internet for education? 2) What is the frequency of teacher training programs designed to improve IT competency? 3) Are the teachers ready to use the Internet for educational purposes? 4) How to educate teachers use Internet for enhance quality of education? 5) What is the strength of using Internet for education? 6) What is the weakness of using Internet for education? 7) What kinds of supportive projects relevant to Internet for Education are in place? The first four questions will be reported upon as a focus for this paper however, items 5 to 7 items will not be reported since the qualitative

information will demand many pages to publish.

4. Data Findings and Discussion

The characteristics of respondent who were the school administrators participated in this survey represent not only schools in Bangkok but also provincial schools in Thailand. 19 per cent of participants (n=4) were located in Bangkok and 81 per cent of participants (n=17) were located outside Bangkok. In total, there were 21 administrators of public secondary schools in Thailand who participated in this survey. Approximately two fifths of school administrators were female. The majority of participants or 70 per cent were in the age group of between 46-55 years old, all the remaining administrators were younger than 45 years old. Three fifths of participants held master degree qualifications and all the remaining held a bachelor degree.

4.1. Internet usage for education

Based on data in Table 1, almost all schools that participated in this survey (95.2 %) had used the Internet for education. 100 per cent of schools located in Bangkok had used the Internet however; not all (5.9 %) of schools located outside Bangkok never used the Internet for education. These results are congruent with the report from Egypt that indicated that eLearning communities did not exist in other provinces except Cairo [19].

	Schools in Bangkok	Schools outside Bangkok	All schools in Thailand
use the Internet	100 %	94.1 %	95.2 %
not use the Internet	-	5.9 %	4.8 %
Total	100 %	100 %	100 %

Table 1: Readiness of Internet usage for education

4.2. Frequencies of teacher training

Table 2, Frequencies of teacher training reveals that the majority (57.1 %) of school administrators indicated that there was at least one training courses using Internet for education per semester. The second frequency of annual training was (28.6 %). Approximately one tenth of schools conducted training focused on using the Internet for education monthly. About five per cent of the schools indicated that there was no training that involved using the Internet for education.

Frequencies of teacher training	Per cent
at least once per month	9.5
at least once per semester	57.1
once a year	28.6
never	4.8
Total	100.0

Table 2: Frequencies of teacher training

Based on their location, half of the schools in Bangkok provided training related to using the Internet for education every semester and another half provided the same training once a year. The findings for schools outside of Bangkok differ. Approximately 60 per cent of schools outside Bangkok provided training about using the Internet for education every semester. Approximately 23.5 per cent of schools outside of Bangkok provided training for using the Internet for education every year. Approximately 12 per cent of provincial schools provided training for using Internet for education every month. Only 6 per cent of provincial schools never conducted training for using the Internet for education. Based on the results of this section, it might be assumed that schools in Thailand both in urban and rural areas are concerned with improving competency using the Internet for education.

4.3. Readiness of Internet usage for education

Approximately three fourths of the Thai school administrators (76 %) indicated that their schools were ready to use the Internet for education; the remaining (24 %) stated that their schools were not ready. All schools located in Bangkok indicated that their complete readiness to use the Internet for education. Comparatively only 70 per cent of schools located outside Bangkok indicated the same. Since 30 per cent of schools located outside Bangkok indicated their schools do not have connections to the Internet. This is an important finding for policy makers in Thailand who have the responsibility to focus on the digital divide as outlined and implement a solution to the problem related to.

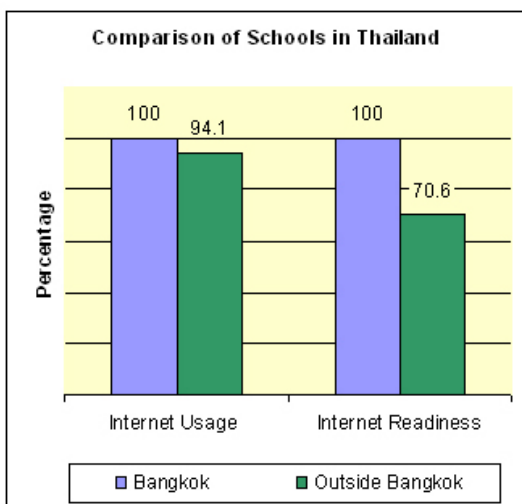


Figure 1: Comparison of Schools in Thailand

Figure 1 reveals that a comparison of both schools in Bangkok and other provinces in terms of Internet usage and Internet readiness. A gap exists between Internet Usage and Internet Readiness between schools in Bangkok and in other provinces. The provincial schools in Thailand used Internet for education slightly less than Schools in Bangkok. The results from this current survey indicate that there is a big

critical gap of Internet Readiness between schools in Bangkok (100 %) and outside Bangkok (70.6 %). The rationale most frequently offered by school administrators in Bangkok which supports the readiness of eLearning in their schools is that teachers have access to professional development in the area of IT especially Internet usage and the readiness of computer networks at the schools. However, where school administrators identified the limited Internet usage for education they site as a rational that there are not enough computers and schools experience a shortage of Internet connection resources.

4.4. Strategy to enhance quality of eLearning

The information in this section is a summary of responses from the open-ended questions concerning strategies to enhance the quality of eLearning. It has been found that there was a high demand for teacher training for eLearning and better facilities for both hardware and networks. It is important to note that school administrators indicated the need for having appropriate course ware since Thai online course ware is very limited. The findings from this question might also serve as focus for a future projects that supports a Thai online society. Studies which benefit Thai eLearning communities are imperative. Strategies to increase Thai online course ware should originate not only from the government but also from the private sector of society since the outcomes for eLearning ultimately a sustainable turn in the Thai economy.

5. Conclusion

The evaluation of readiness of eLearning connectivity reflects trends for both schools in Bangkok and outside Bangkok. The results of survey indicated a complete readiness of eLearning

connectivity only in the city of Bangkok. However, it is remarkable to note that schools in rural areas of Thailand require not only Internet connection but also good computers. At the national level Thailand is facing similar problems with other countries where English is not the official language and there exists a high demand for adequate Thai online course ware.

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