A NEEDS ANALYSIS OF THAI HIGH SCHOOL TEACHERS
IN USING INTERNET APPLICATIONS FOR TEACHING
ENGLISH AS A FOREIGN LANGUAGE

By

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To the Faculty of Washington State University:

The members of the Committee appointed to examine the thesis of SUDSUANG YUTDHANA find it satisfactory and recommend that it be accepted.

__________________________________
Chair

__________________________________

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Abstract

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May 2004

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Thailand has committed to the development of technology use in infrastructure, people, and governance. Personnel in education are encouraged to be involved in the process of professional development. Furthermore, both the curriculum and the standards of English as a foreign language teaching set up by the Thai Ministry of Education mention about using technology in teaching. However, development in this area can be neither done nor planned well without a good context analysis. In order to obtain an effective development plan for professional development, teachers’ needs in using Internet applications are required. This study, therefore, revealed teachers’ use and needs of the Internet in teaching English as a foreign language (EFL).

The results of the study are (1) most of the EFL teachers in the study use Internet applications for their instruction, including teaching preparation and teaching in this classroom, (2) the EFL teachers who use Internet applications mostly have good opinions about using them for teaching EFL, (3) the teachers have many concerns about using the Internet for their instruction including professional, infrastructure, and administrative concerns, and (4) the teachers perceive that they need a training course in using Internet applications for EFL teaching.
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Dedication

I dedicate this thesis to my father, Suang Yutdhana.

Thank you for watching over me.
CHAPTER ONE
INTRODUCTION

Over the past few decades, technologies have become a part of our lives. Our ways of written communication have been changed to include letters, faxes, and then e-mails. In the past, we thought of a library as a major knowledge resource, but the Internet has become as crucial a source in the present. This pervasiveness is why countries such as Thailand are eager to develop technological infrastructure, including the availability of computers and Internet access.

The Ministry of Education has provided schools with computer hardware and software and allowed schools to connect to the Internet. Moreover, in terms of research and policy development, Thailand has been working cooperatively with the UNESCO Asia and the Pacific Regional Bureau for Education since 1949 (Ministry of Education, 2003). The Information and Communication Technologies (ICT) department for Education in the Asia-Pacific department of UNESCO reports on the current trend of using technology in this region (UNESCO, 2003). Like other countries in Asia and the Pacific region, Thailand has “an irreversible trend” (p.1) to transform their workforce and educational staff into technology literate and skilled workers.

Teacher training programs on technology use for education are being initiated in varying degrees and scope. Many developing countries, including Thailand, provide training programs on computer literacy. However, there is “…an apparent tendency for curriculum contents to be more oriented towards basic computer literacy for the emerging/developing countries” (p. 3). Furthermore, it is also precisely mentioned in
agenda 2 of Thailand’s IT policy presented by NITCS (2000) that the government intends to “make IT an integral tool in education and training at all levels. The use of IT in education must not be restricted to science and technology, but to include the humanities and the arts as well” (p. 14). In addition to these two sources, section 65 in Chapter 9 of the Educational Act mentions that “Steps shall be taken for personnel development for both producers and users of technologies for education so that they shall have the knowledge, capabilities, and skills required for the production and utilization of appropriate, high-quality, and efficient technologies” (Educational Act).

The government’s intent to infuse technology in everyday area of teaching is evident in its education standards. For English as a foreign language (EFL) teaching in Thailand, the Thai Ministry of Education set up a standard for EFL high school students. One of the standards is “To have communicative English for exchanging information, making critics, and expressing opinions by using appropriate technology for life-long learning.” (Board of Academic Development, 2003).

Clearly, Thailand has committed on paper to the development of technology use in infrastructure, people, and governance. Personnel in EFL education are encouraged to be involved in the process of professional development. However, the development can be neither done nor planned without a good needs analysis. In order to obtain an effective development plan for professional development, an understanding of teachers’ needs in using technology, especially Internet applications, is required. Before planning the professional development, we first need to know the current status of teachers’ use and needs.
This study, therefore, explores teachers’ use and needs of the Internet in English as a foreign language (EFL). This chapter presents the background of the study, the review of literature, the statement of problem, the purpose of the study, the research questions, and the significance of the study accordingly.

Technology Use in Thailand

The National Information Technology Committee Secretariat (NITCS) has set up Thailand’s IT policy (NITCS, 2000) into the 21st century with three major agendas:

1. Agenda 1—Invest in an equitable information infrastructure

   This agenda empowers human ability and enhances people’s life quality. The phrase ‘information infrastructure’ includes “…telephones, pagers, fax machines, switches, copper & coaxial cable, satellites, fiber optic cable,…, computers, printers, …new equipment and technologies, notably in applications and systems software” (p. 4).

2. Agenda 2—Invest in people

   This agenda aims to build “a literate populace and an adequate information technology manpower base” (p. 7). It is essential to prepare people to be in the information age. It states that “…teachers and university lecturers must provide role model in the use of IT. The training of teachers and lecturers in acquiring at least adequate basic IT skills is therefore very important…” (p.8.)

3. Agenda 3—Invest for good governance

   Information technology holds promise to profoundly change the way we live, work, learn, and play. The changes that may well follow from such a pervasive and enabling technology can only be described as revolutionary. It is, therefore, important for
the state to “…encourage, promote, support, and coordinate the development, institutional, infrastructure, industry, or human resources” (p.9).

Due to these three agendas, Thailand is involved in the process of technology development in many areas: industry, society, and education. The commitment to technology brings about “…conceptions of the skills and knowledge children will need to become successful adults and the relevant educational experiences they should encounter while attending school” (Smerdon et al., 2000). Educational institutes at all levels, therefore, have a huge investment in integrating technology, especially computers and the Internet, into educational environments.

Since Thailand commits on paper to the investment in professional development, it is important to understand the overall picture of teacher education in technology use. The review of literature in this area shows what the professional development in using technology looks like.

**Teacher Education in Technology Use**

In order to understand how teachers use Internet applications for TEFL, it is essential to realize the current situation of teacher education in technology use. Egbert, Paulus, and Nakamichi (2002) made a significant review of the literature in the field because research in this field was fragmental and unlinked. Their review precisely reveals what we have done in teacher education in technology use. It is summarized that research in the field of teacher education in technology use is divided into four separate but mutually exclusive foci: how teachers learn technology, the interaction between coursework and the classroom, factors affecting technology use, and professional
development in technology use. These foci are described below in order to show the previous study and current situations of teacher education in technology use.

How teachers learn technology

Research in how teachers learn technology is still questioned. Some research shows that teachers will be confident in using technology for their teaching situation when they learn how to use it in the pre-service coursework (Knezek, Christensen, and Rice, 1996). In addition, Lam (2000) mentions that teachers' attitudes towards computers improve through such coursework. However, those studies do not show what pre-service teachers take away from the courses and use in their teaching (Egbert, Paulus, & Nakamichi, 2002).

The literature to date attempts to answer three questions stressed by Galloway (1996); that is, what computer experience teachers need to gain, how they actually use computers, and how they learn to use and adopt computers. The answers to such questions are divided into two "overarching themes" (Egbert, Paulus, & Nakamichi, 2002, p. 110). The first theme is that teachers learn what they actually need to use, and the second is that coursework does not always address teachers or students' needs.

Firstly, even though the pre-service teachers learn how to use technology in teaching situations through their coursework, it does not mean that such coursework will have an impact on teacher-education students' beliefs about their abilities or use of what they have learned. There are studies noting that pre-service teachers use technology when they find enough evidence of the effective new teaching methods on quality of
learning outcomes and professional development (McMeniman & Evans, 1998) and that pre-service teachers learn to use technology applications when they need to use in their lives outside of school (Galloway, 1996; Smerdon et al., 2000).

Secondly, the knowledge and technology skills which pre-service teachers learn through coursework may not be what they need or perceive they need to know (Egbert et al., 2002). It is always found that technology applications taught in teacher-education coursework are not up-to-date and practical for teachers to implement into their teaching but more likely to use them as a supplement.

Since technology use depends on the context and learning happens during the actual teaching, peer collaboration in situated learning context seems to have more impact on teacher learning (Fisher, 1999; Marsch, 1996; Smerdon et al., 2000;).

From this review, it is significant that a new paradigm of teacher education in technology used is needed. The current idea of technology course is still split from teachers’ experience or real use of technology. This is still a challenge for a course designer to find a solution.

Interaction Between Coursework and Classroom

It is difficult to find research reviewing the interaction between coursework and classroom. What is mainly noted by the existing research is that the coursework might not facilitate teachers integrating technology into their teaching ((Egbert, Paulus, & Nakamichi, 2002). The lack of facilities provided by schools is one barrier in doing so
(Wentworth, 1996). In order to make a change in teacher practice at least 3 years time may be needed; therefore, the one-shot course is not effectively applicable (Grau, 1996).

Although the coursework may not change teachers' practice, Kerins (1992) finds that teachers' attitudes towards technology can improve and initiate their thoughts of the integration of computer into their classrooms. This idea is supported by Parr’s (1999) notion that slow integration might also be due to the lack of collaborative culture supporting computer use in the schools. Hargrave and Hsu (2000) find that a single, non-site-based technology course will likely not have much direct immediate impact on teachers’ classrooms uses of computers.

In sum, even though there is little research on the interaction between coursework and classroom, it is clearly that teachers still have a problem of transferring knowledge from coursework to real practice because there are many factors influencing their technology. This is discussed in the next section.

Factors Influencing Technology Use

A third focus is the influence on teachers' use of technology. Factors which may influence teachers' use of technology are in a wide range. These include pressure to use it to learn new skills (see Debski, 2000), pre-service use, perception of the usefulness of technology for teaching, and overcoming technology-related anxiety (Knezek, Christensen, and Rise, 1996), teachers' confidence and positive attitudes towards technology (Fisher, 1999; and Lam, 2000), and the availability of computers at home (Yildirim, 2000).
Many barriers preventing technology use are also found (Egbert, Paulus, & Nakamichi, 2002); that is, time limitations both outside and during class (Lam, 2000; Levy, 1997a; Reed et al., 1995; Smerdon et al., 2000; Strudler, Quinn, McKinney, and Jones, 1995); lack of resources and materials (Loehr, 1996; Smerdon et al., 2000); insufficient or inflexible guidelines, standards, and curricula (Langone et al., 1998); lack of support or recognition for integrating computers (Grau, 1996; Strudler, McKinney, and Jones, 1999); a clash between new technologies at universities and older ones in schools; lack of leadership (Smerdon et al., 2000); and inadequate training and technical support (Abdal-Haqq, 1995; Lam, 2000; Langone et al., 1998; Levy, 1997a; Smerdon et al., 2000), age, gender, attitudes toward technology, and teaching experience (Lam, 2000), and the rate of technological change (Levy, 1997a).

This shows that a course designer has to consider many factors that can influence the effectiveness of the course. A course designer can increase the course effectiveness by attempting to eliminate or at least reduce barriers noted in previous research. The current study conducts a pre-design survey aiming to explore what can be barriers for the training course for EFL teachers in Thailand in order to make a best design for teacher education in using Internet applications for TEFL.

Professional Development in Technology Use

Even though professional development in technology use seems to be one of the crucial aspects of language teacher education, little research can be found (Egbert, Paulus, & Nakamichi, 2002). It is found that a lack of resources is one barrier preventing
professional development (Grau, 1996). However, teachers may have their own professional development when they receive "a firm grounding in CALL theory through their coursework" (Egbert, Paulus, & Nakamichi, 2002, p. 113). That is, teachers can learn additional skills after their coursework on their own. Levy (1997b) argues that it is nearly impossible to cover every piece of technology in the course. However, if teachers understand the underlying theories and perspectives of technology integration, they can continue to learn and develop their materials according to their future needs.

In conclusion, teachers' attitudes can be changed after taking technology courses through their coursework which should be looked at from a more holistic picture, rather than whether teachers become computer experts during a course (Levy, 1997b). Moreover, teachers may effectively use technology for their teaching when they learn it with their own specific needs. This study, therefore, reveals the opinion of EFL teachers in Thailand about using Internet applications for their instruction together with their needs for training.

Statement of Problem

The development of technology use in Thailand including infrastructure, people, and governance, is in progress. Many institutes and governmental offices attempt to provide teachers opportunities to develop their computer skills and principles in using technology for their instruction. However, most technology courses provided currently were not designed according to a real teaching situations or teachers’ needs. There has been neither a report of what EFL teachers really want to know about Internet use nor a
description of the current situation of how EFL teachers use Internet applications in their
teaching.

**The purpose of the study**

According to the statement of problem, this study therefore investigates EFL
teachers’ use of Internet applications for their instruction. Moreover, EFL teachers’
opinions of and needs for technology training are also revealed.

**The research questions**

This study attempted to answer these following questions:

1. How do EFL high school teachers in Thailand currently use Internet
   applications for their instruction?
2. What are EFL high school teachers’ opinions about using Internet applications
   for their instruction?
3. What are EFL high school teachers’ needs for a training course in using
   Internet applications?

**Significance of the study**

This study presents needs analysis of high school teachers in Thailand in using
Internet applications for EFL teaching. Little such research has been done in Thailand
before. This study, therefore, presents the current situation of how EFL high school
teachers use the Internet. The results of the study lead to implications for both Thai
Government and higher educational institutions.
CHAPTER TWO

METHODOLOGY

This study investigated high school teachers’ use of Internet applications for their instruction. This chapter presents the research methodology including the population, the samples, the research instrument, the data analysis, and the timeline of the study.

Population

The population of the study was EFL high school teachers from 1,741 schools in Thailand. All of these schools were members of the School Net Thailand project run by The National Electronics and Computer Technology Center (NECTEC).

Sample

The sample for the population of the study was randomly selected according to the following criteria:

1. The sample was high school EFL teachers from large-scale public schools because the schools tend to have a higher availability of computers and Internet access for students than medium- and small-scale schools.

2. The sample was from high schools in an educational center of a region. That is, they are in the provinces which have either public or semi-autonomous universities. This is because such a school is located near a university that provides teacher education courses. It is also because teachers from such a school were convenient to work cooperatively with researchers from a university in the area.
From the criteria above, the researcher selected the sample school according to these steps:

1. There are 24 public and semi-autonomous universities in 11 provinces all over Thailand as follows:

<table>
<thead>
<tr>
<th>Region</th>
<th>Province</th>
<th>Number of Universities</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>Chiang Mai</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Chiang Rai</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Phitsanulok</td>
<td>1</td>
</tr>
<tr>
<td>Center</td>
<td>Bangkok</td>
<td>12</td>
</tr>
<tr>
<td>North-East</td>
<td>Khon Kaen</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Nakorn Ratchasima</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Ubonratchathani</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Mahasarakram</td>
<td>1</td>
</tr>
<tr>
<td>South</td>
<td>Songkhla</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Nakorn Si Thammarat</td>
<td>1</td>
</tr>
<tr>
<td>East</td>
<td>Chonburi</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>24</td>
</tr>
</tbody>
</table>

2. According to the number of universities in each province, the schools which are the representatives of the regions are

North
   1. Wattanothai Payap School     Chiang Mai
   2. Chalermkwanstree School      Phitsanulok
Center
1. Triumudomsuksa School Bangkok
2. Hor Wang High School Bangkok
3. Streewittaya School Bangkok

North-East
1. Khonkaen Wittayayon School Khon Kaen
2. Ratchsima Wittayalai School Nakorn Ratchasima

South
1. Hatyai Wittayalai School Songkhla
2. Muang Nokorn High School Nakorn Si Thammarat

East
1. Chonkanyanukul School Chonburi

3. Due to the school distribution, 10 EFL teachers from each school were selected by a simple random sampling. Therefore, the sample of the study was 100 EFL teachers from 10 schools all over Thailand.

Research instrument

The instrument used to accomplish the research purposes was a survey questionnaire. The questionnaire was used to survey the Internet use of high school EFL teachers. It was also to investigate their needs and opinions of using Internet applications for EFL.

The questionnaire was modified from Smerdon et al. (2000) and Berkeley Planning Associates (1997). The questionnaire created by Smerdon et al. (2000) was to investigate public school teachers’ use of technology. Some items asking about teachers’ use of technology were selected and adapted into this study’s questionnaire to ask how high school EFL teachers use Internet applications for their teaching. Apart from that,
some items in the questionnaire created by Berkeley Planning Associates (1997) were also adapted in order to evaluate high school EFL teachers’ opinions toward using Internet applications for teaching EFL. Moreover, open-ended questions were added to reveal teachers’ opinions and perceptions in using the Internet in teaching EFL. The questionnaire for the study is in Appendix 1.

The questionnaire was piloted to check its reliability at Northern Triumudomsuksa School in Phitsanulok. The teachers who were in the pilot study were asked to complete the questionnaire as well as give some comments on the questionnaire. The researcher used the SPSS software to run the data from the pilot study. In order to check the reliability of the questionnaire, the statistic test was used. The reliability of the questionnaire was 0.863. Some comments on Thai language use were obtained from the pilot study. The researcher, therefore, revised the language use to avoid some ambiguity in the questionnaire.

**Data analysis**

Data from the questionnaire were analyzed by conducting descriptive statistics, including frequency and percentage. The data, including data from multiple choice items, rating scale items, and yes/no items, were coded and analyzed using SPSS software. The data obtained from the open-ended questions were analyzed by this procedure: the researcher read all of the answers, coded them by the keywords found in the answers, and finally did the frequencies of each category.
CHAPTER THREE
ANALYSIS

This study investigates EFL teachers’ use of Internet applications for their instruction as well as their opinions about using them. Moreover, EFL teachers’ opinions about and needs for technology training are also revealed. This chapter presents the results of the survey that participants completed using the three research questions as its organizing principle:

1. How do EFL high school teachers in Thailand currently use Internet applications for their instruction?;

2. What are EFL high school teachers’ opinions about using Internet applications for their instruction?; and

3. What are EFL high school teachers’ determinations of their needs for a training course in using Internet applications?

Along with the data presentation are discussions of the results. After the data presentation and discussions, this chapter presents the implications for related organizations including the Thai Government, Thai Ministry of Education, and higher-educational institutes. The last section of the chapter presents the implications for future research.

Respondents of the study

The questionnaires, presented in Appendix A, were sent to 100 high school EFL teachers in Thailand. Eighty questionnaires were sent back to the researcher. Table 1
shows the number of respondents divided by region in order to demonstrate the
distribution of respondents. Twenty-five percent of the respondents teaches in the North
(F = 20), 25 percent teaches in the North-East (F = 20), 23.7 percent teaches in the
Central (F = 19), 20 percent teaches in the South (F = 16), and 6.3 percent teaches in the
East (F = 5).

Table 1: Respondents of the Study

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of surveys</th>
<th>Number of respondents</th>
<th>Percent of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>20</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Central</td>
<td>30</td>
<td>19</td>
<td>23.7</td>
</tr>
<tr>
<td>North-East</td>
<td>20</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>East</td>
<td>10</td>
<td>5</td>
<td>6.7</td>
</tr>
<tr>
<td>South</td>
<td>20</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>80</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

An acceptable response rate is different in different research methods textbooks. Babbie (1990) mentions that an adequate response rate is 50 whereas Bailey (1987) set the adequacy bar at 75 percent. This study, therefore, obtained sufficient return since 80 percent of the surveys were returned.
Results of the study

Question 1: How do EFL high school teachers in Thailand currently use Internet applications for their instruction?

The teachers answered different types of questions about their use of the Internet including places, time, and purposes of their Internet use. That is, the teachers had checklists for places and times they use the Internet and they had a three-point rating scale to answer how often they used the Internet for each purpose. The results of each topic are presented separately.

Places where Thai EFL teachers use the Internet

In order to identify where EFL teachers in Thailand use the Internet, the teachers were allowed to select more than one choice on the checklist. As shown in Figure 1, the teachers mostly use the Internet at school (F = 58) followed by using it at home (F = 47) and at other places such as Internet cafés and public libraries (F = 4). However, 16 EFL teachers (20 percents of the respondents) identified that they did not use the Internet at all.
The 64 respondents who identified themselves as Internet users kept continued answer questions in the survey while the 16 Internet non-users skipped the questions about the time of, purposes for, opinions about, and feeling for their Internet use.

**Times when computers with the Internet access at school are available**

Next, the teachers were asked when they could use computers with Internet access at their schools. In Figure 2, the data shows that most of their schools provide computers with Internet access for teachers for most of the time. They can use the computers before school (F = 51), during school (F = 49), and after school (F = 53). They can also use computers with Internet access on weekends (F = 37). This result reveals that EFL teachers in Thailand who use the Internet have a high availability of using computers with Internet access in terms of time.
Purposes of EFL teachers’ use of the Internet

In order to better understand purposes for EFL high school teachers’ use of the Internet, the survey included a question regarding what purposes they used the Internet for and also how often they used it either at home or at school. The results obtained for this question are summarized below.

As seen in Table 2, EFL high school teachers in Thailand ‘occasionally’ use the Internet for educational purposes. Furthermore, of all those eight purposes given, the respondents answered that they used the Internet for only four purposes. The four purposes for which the teachers occasionally use the Internet are (1) to create instructional materials (i.e. handouts, test, etc.); (2) to gather information for planning
lessons; (3) to access research and best practices for teaching; and (4) to communicate with colleagues and other professionals. Among these four purposes, there are two interesting notions. First, the teachers occasionally access research and best practices for teaching via the Internet only at school. Most of them never do it at home. Second, the number of the teachers who never use the Internet to communicate with colleagues and other professionals at home does not imply that the teachers mostly never use the Internet for this purpose. This is because the added number of teachers who use ‘occasionally’ and ‘frequently’ use the Internet for this purpose is higher than those who never do.

The four purposes for which the participants never use the Internet are (1) to access model lesson plans; (2) to make presentations for the classroom; (3) to communicate with students outside classroom or classroom hours; and (4) to post homework or other class requirements or project information.
Table 2: Purposes for the teachers’ Internet use (N = 64, internet users only, some non-respondents)

<table>
<thead>
<tr>
<th>Purposes</th>
<th>Use at school</th>
<th>Use at home</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>never</td>
<td>occasionally</td>
</tr>
<tr>
<td>a. create instructional materials (i.e. handouts, test, etc.)</td>
<td>17</td>
<td>42</td>
</tr>
<tr>
<td>b. gather information for planning lessons</td>
<td>11</td>
<td>44</td>
</tr>
<tr>
<td>c. access model lesson plans</td>
<td>45</td>
<td>13</td>
</tr>
<tr>
<td>d. access research and best practices for teaching</td>
<td>19</td>
<td>39</td>
</tr>
<tr>
<td>e. make presentations for the classroom</td>
<td>52</td>
<td>11</td>
</tr>
<tr>
<td>f. communicate with colleagues/other professionals</td>
<td>20</td>
<td>42</td>
</tr>
<tr>
<td>g. communicate with student(s) outside the classroom/ class room hours</td>
<td>48</td>
<td>15</td>
</tr>
<tr>
<td>h. post homework or other class requirements or project information</td>
<td>51</td>
<td>11</td>
</tr>
</tbody>
</table>
From the results mentioned above, it is interesting that there are four purposes for which the teachers mostly never use the Internet at home or at school. The reason why they do not use the Internet to access model lesson plans may be because each school designs lesson plans for each course already or adopts/adapts lesson plans suggested by the Ministry of Education (Board of Academic Development, 2003). In the manual of foreign language curriculum designed by the Board of Academic Development (2003), there are lesson plans suggested for each grade level and for each unit. However, the Ministry of Education allows each school to design and make their own lesson plans that comply with the suggested lesson plans in the Ministry’s manual. Perhaps, each school uses a series of English book coming with a complete guideline for teachers to adopt. These might be the reasons why the participants answered that they did not use the Internet to access model lesson plans.

Furthermore, the results that the EFL teachers in Thailand do not use the Internet to make presentations for classrooms, to communicate with students outside classroom, and to post homework, class requirements, or projects are similar to the report of the United States Department of Education (Smerdon et al., 2000) that teachers use technology most frequently for instructional preparation or to supplement instruction rather than for instructional delivery.

**Question 2: What are EFL high school teachers’ opinions about using Internet applications for their instruction?**

As we have seen above, the participants occasionally use the Internet for their instruction. The teachers who declared themselves Internet users were also asked about
their opinions about using it for their instruction. In order to reveal their precise opinions, the questions consisted of both scaled and open-ended questions. The Internet non-users were not asked to answer this question because the study investigated the opinions that occurred when the teachers really used the Internet. The results of each question are presented below.

First of all, the teachers who claimed to use the Internet occasionally were asked whether they agreed with statements about the advantages and disadvantage of using the Internet for EFL teaching (see Table 3). Overall, the teachers have positive opinions about using the Internet for their instruction. They agree with seven statements: (1) Internet applications can play important instructional role in my classroom (F = 37); (2) Internet applications can be used in my classroom to enhance the teaching of important skills (F = 41); (3) Internet applications are best used for drill, remediation, or reinforcement of facts (F = 40); (4) Internet applications are best used in classroom to promote students’ analytical, creative, and other ‘higher order’ thinking skills (F = 41); (5) Internet applications can be used in my classroom to provide alternative learning approaches for students who are having difficulty learning (F = 45); (6) Using Internet applications is an appropriate activity for some students (F = 39); and (7) Internet applications can be used in my classroom to make learning more interesting for all students (F = 33).

Furthermore, they strongly agreed with the statement “I would like to learn as much as possible about how to use new computers and Internet applications to improve instruction in my classroom” (F = 35).
However, there was a disagreement with the only negative statement which stated that “using Internet applications in my classroom is likely to be disruptive to student learning and social development” (F = 35). This means the teachers had a positive opinion.

In conclusion, the overall participants have positive opinions about it. They agreed that the Internet provided many advantages for their instruction. However, it should be noted that there are a number of the respondents who have negative opinions about using the Internet for EFL teaching. There are some respondents disagreed with positive statement provided in the survey. Furthermore, 23 of the respondents agreed with the negative statement that using Internet in their classroom is likely to be disruptive to student learning and social development. It is, therefore, very challenging to explore more about these negative opinions in future research.
Table 3: Teachers’ opinion about using the Internet for TEFL (N= 64, Internet users only)

<table>
<thead>
<tr>
<th>Opinions</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Internet applications can play an important instructional role in my classroom.</td>
<td>23</td>
<td>37</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>b. Using Internet applications in my classroom is likely to be disruptive to student learning and social development.</td>
<td>3</td>
<td>23</td>
<td>35</td>
<td>3</td>
</tr>
<tr>
<td>c. Internet applications can be used in my classroom to enhance the teaching of important skills.</td>
<td>17</td>
<td>41</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>d. Internet applications are best used for drill, remediation, or reinforcement of facts.</td>
<td>21</td>
<td>40</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>e. Internet applications are best used in classroom to promote students’ analytical, creative, and other “higher order” thinking skills.</td>
<td>16</td>
<td>41</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>f. Internet applications can be used in my classroom to provide alternative learning approaches for students who are having difficulty learning.</td>
<td>15</td>
<td>45</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>g. Using Internet applications is an appropriate activity for some students.</td>
<td>20</td>
<td>39</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>h. Internet applications can be used in my classroom to make learning more interesting for all students.</td>
<td>26</td>
<td>33</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>i. I would like to learn as much as possible about how to use new computers and Internet applications to improve instruction in my classroom.</td>
<td>35</td>
<td>26</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

SA = Strongly agree   A = Agree   D = Disagree   SD = Strongly disagree

In order to explore more about how EFL high-school teachers think about using Internet applications for their instruction, the teachers were encouraged to add some additional comments apart from the statements listed in Table 3. Only two teachers
responded to the open-ended questions. Their comments were (1) using Internet applications in the classroom cannot be effective or efficient without a good availability of computers and Internet access as well as technical support; and (2) using Internet applications for EFL teaching is self-learning so that such an activity can be excluded from the classroom. These two additional comments are related to and found in other parts of the survey—concerns, and effective ways of using the Internet for EFL teaching. They are, therefore, discussed more in each part of the data presentations and the discussions.

However, a positive attitude towards using technology for instruction cannot ascertain that teachers are able to use or integrate it with their teaching (Egbert, Paulus, & Nakamichi, 2002). This study, therefore, investigated whether the teachers used the Internet for their teaching preparation and classroom instruction. Table 4 shows that the teachers mostly use the Internet for their teaching preparation (F = 36) more than for their classroom instruction.

| Table 4: Do the teachers use the Internet for their instruction? (N = 64, some non-respondents) |
|-------------------------------------------------|-------|-------|
| Using the Internet for teaching preparation     | 36    | 25    |
| Using the Internet for classroom instruction    | 25    | 36    |

It should be noted that the 25 teachers who answered that they used the Internet for classroom instruction are a part of the 36 teachers who used the Internet for teaching preparation. This means all of the 25 teachers who used the Internet for classroom
instruction also used it for their teaching preparation. There are nine of them who used the Internet for teaching preparation only. The teachers who answered that they did not use the Internet for teaching preparation did not use it for classroom instruction either.

In addition to whether they use it or not, the teachers who answered that they used the Internet for either their teaching preparation or classroom instruction were also asked about their feelings. They answered an open-ended question. The researcher, then, read all of the answers, coded them by the keywords founded in the answers, and finally did the frequencies of each category. There were six keywords founded in the teachers’ answers including ‘curious’, ‘excited’, ‘convenient’, ‘interested’, ‘insufficient’, and ‘exhausted.’ Some answers containing words with similar meanings (e.g. eager = excited, tired = exhausted) were grouped in the similar-meaning categories.

Figure 3 shows the response of the 36 teachers’ feelings when they use Internet applications. The 36 respondents here are the teachers who answered that they used the Internet for either teaching preparation or classroom instruction or both. The results show that the teachers have both positive and negative feelings about using Internet applications for their teaching preparation and classroom teaching. Four of the feelings raised by the teachers are positive, but two are negative. The four positive feelings are represented by the words ‘curious’, ‘excited’, ‘convenient’, and ‘interested’ whereas two keywords showing negative meaning are ‘insufficient’ and ‘exhausted.’ As seen in Figure 3, the teachers mostly feel ‘curious to learn and explore more’ about the Internet (F = 11) followed by feeling ‘excited about huge useful information’ (F = 7), ‘convenient with technology’ (F = 6), ‘that I have insufficient knowledge to use the Internet’ (F = 4),
‘interested in exploring and perceiving a cyber world’ (F = 4), and ‘exhausted because of spending too much time for searching’ (F = 3).

Figure 3: How teachers feel when they use Internet applications (N = 36, Internet users for teaching preparation and/or classroom instruction only)

When the researcher analyzed each case’s answer, it is interesting to find that the teachers who have positive feelings about using the Internet in their teaching preparation or their classroom instruction did not feel exhausted with using the Internet at all. However, some of them felt that they have insufficient knowledge to use it.

The challenge of this result is how to help the teachers with two negative feelings—exhausted and insufficient knowledge. Spending too much time for searching can occur when the teachers have no clues or guidelines in searching. Universal search engines may lead them to millions of Web sites containing keywords they put in a search box. There are many choices that may be applicable to solve this problem such as
providing a good manual of using the Internet and hiring a technology coach. But the best solution is a training course in situated learning context. Smerdon et al. (2000) and Fisher (1999) state that peer collaboration has more impact on teacher learning of using technology for their instruction than a technology coach or text. In other word, in such a training course, teachers have an opportunity to work, discuss, and practice with knowledgeable peers. That leads to more implementation of using Internet applications for instruction. Once the teachers have adequate knowledge and practice of using the Internet for EFL teaching, they can spend less time on exploring Web sites. This leads to less exhaustion.

The most effective ways to use Internet applications for EFL teaching

Once the teachers have experienced using the Internet, it is useful to see what they think are the most effective ways to use Internet applications for EFL teaching. Sixty-four teachers who declared themselves Internet users were asked to answer an open-ended question. Only 27 of 64 teachers responded to this question. The answers were read, coded and categorized into eight ways as shown in Figure 4. First, they mostly think the Internet is effective to be used as a communication tool between teachers and students as well as among students themselves (F = 11). Second, the teachers think that students can use the Internet for self-learning so that it should be a supplementary tool excluded from class (F = 9). Third, the teachers consider the Internet as a supplementary tool but can be used with purposes of the curriculum assigned by policy from the Thai Ministry of Education (F = 7). Fourth, the teachers think that the Internet can be used effectively as an authentic setting to practice English language skills (F = 6). Fifth, group
researching is one of the most effective ways that the teachers think about (F = 5). Sixth, the teachers think that the Internet can be used as a source of updated news and information (F = 4). Seventh, they think that the Internet can be used as a reference (F = 2). Eighth, they think that the Internet can be used to teach critical thinking (F = 2).

Figure 4: The most effective ways to use Internet applications in EFL teaching (N = 64, Internet users only, 37 non-respondents)

It should be noted that only 27 of 64 teachers answered this question. More than 50 percent of the teachers did not give any ideas of what the most effective ways they could use Internet applications for EFL teaching were. But when the researcher checked the respondents, it is found that all of 27 teachers who answered this question identified that they used the Internet for either teaching preparation or classroom instruction or both. This shows that the teachers who never used the Internet for teaching preparation
and classroom instruction could not give suggestions about the effective ways of using the Internet for EFL teaching.

Concerns about using Internet applications for EFL teaching

While the teachers reflected how they use Internet applications for their instruction together with their feelings and thoughts about the most effective ways to use them, concerns or problems they have are also essential. Here is the question which all the teachers who declared themselves Internet users and Internet non-users were involved. With an open-ended question, 80 teachers were asked about what concerns or problems they have when they use the Internet. The researcher, then, read all of the answers, coded them by the keywords found in the answers, and finally did the frequencies of each category. As seen in Figure 5, there are eight concerns. Based on the numbers of frequencies, there are three major concerns mentioned by the participants: (1) a lack of computers and Internet access (F = 37); (2) the lack of teacher knowledge in using the Internet for EFL teaching (F = 29); and (3) connection problems including the speed and quality of the connection (F = 23). Five minor concerns are (4) teachers’ workloads (F = 7), (5) individual interest of students which mainly focuses on chatting or playing games only (F = 6), (6) insufficient maintenance budgets of schools for maintenance (F = 4), (7) the quality of computers (F = 4), and (8) the lack of technical support (F = 3).
It is very interesting to see many concerns raised by the teachers. The teachers’ concerns reflect the current situation of the Internet use in Thailand and in the literature about technology use across the world. Even though every concern is important, only three major concerns including (1) a lack of computer and Internet access, (2) a lack of teachers’ knowledge, and (3) problems about network connection are discussed in-depth according to their dramatically higher number of frequencies. All of these three concerns are intertwined. Without either a good facility of computers and Internet access or a good quality of network connection, the teachers cannot be able to use the Internet for their instruction. A lack of teachers’ knowledge may not be a problem, and a training course may not be needed. However, while some teachers are able to use the Internet for their instruction and teaching preparation, training is important for them.
The infrastructure concerns raised by the EFL high school teachers reflects that schools in Thailand still have a low availability of computers, Internet access, and a low quality of network connections. These are two of the major barriers of using Internet applications in education. Without adequate infrastructure, it is seldom for the teachers to integrate the Internet into their instructions.

As mentioned in Chapter One, the National Information Technology Committee Secretariat (NITCS) has set up Thailand’s IT policy (NITCS, 2000) into the 21st century with three major agendas: (1) the investment in an equitable information infrastructure; (2) the investment in people; and (3) the investment for good governance. Agenda 1 and 3 are directly related to the concerns mentioned by the teachers. Even though Thailand’s IT policy was set up since 2000, it is still unproductive. This study was conducted four years after the policy’s implementation. Still, the teachers are highly concerned about the infrastructure including a number of computers, Internet access and a quality of network connection. This might be because Thailand is a developing country, so the infrastructure development is limited by the limited amount of budget.

Another major concern is about a professional development. The teachers considered themselves lacking of knowledge in using Internet applications for EFL teaching. This also shows the disappointment of the NITCS policy implementation. Apart from that, section 65 in Chapter 9 of Educational Act mentions that “Steps shall be taken for personnel development for both producers and users of technologies for education so that they shall have the knowledge, capabilities, and skills required for the production and utilization of appropriate, high-quality, and efficient technologies”
(Educational Act, 1999). However, after four years of policy implementation and five years of the current educational act, the teachers still feel that they lack knowledge.

All these three major concerns that reflect the current situation of educational technology in Thailand. Even though there have been the policy and act, the actual implementation of the policies is not fruitful yet according to the results of the study. It is very challenging for the government to take serious action on educational technology development.

**Question 3: What are EFL high school teachers’ determinations of their needs for a training course in using Internet applications?**

In addition to teachers’ use of and opinions about using Internet applications for EFL teaching, this study also collected data about teachers’ perceptions of their needs for a training course in using Internet applications for their instruction. In order to obtain this information, three kinds of questions including an open-ended question, a multiple-choice question, and a rating-scale question were used.

With the open-ended question, the teachers were asked to raise any content topics they needed to learn more about using the Internet for their instruction. As seen in Figure 6, there are seven content topics the teachers feel they need to learn. They mostly need to learn how to create a Web site (F = 33), followed by teaching techniques (F = 27), searching techniques (F = 22), creating lesson plans (F = 13), creating teaching materials (F = 9), computer skills (F = 8), and Web site evaluation (F = 6).
In addition, the teachers were also asked to answer to what extent they think each content topic is necessary to be in a training course. Based on the content listed in the rating-scale question, they teachers determined that all of the contents were ‘very necessary’ to ‘necessary’. As seen in Table 5, there are seven topics of contents which the teachers perceive ‘very necessary’ for them. Those are (1) basic computer skills (F = 36/73), (2) basic skill in using e-mail (F = 39/75), (3) basic skill in using the World Wide Web (F = 36/73), (4) Web site creation (F = 36/75), (5) gathering information from ESL/EFL Web sites (F = 45/75), (6) creating classroom activities using Internet applications with TEFL (F = 42/75), and (7) creating instructional materials using Internet applications with TEFL (F = 40/75). Four other content topics were considered ‘necessary’. They are (1) basic skill in using Web boards (F = 42/73), (2) basic skill in using chat rooms (F = 38/74), (3) Web site evaluation (F = 35/74), and (4) creating lesson plans for integrating Internet applications with TEFL (F = 34/75).
Table 5: The necessities of the contents (N = 80, some non-respondents)

<table>
<thead>
<tr>
<th>Content of the training course</th>
<th>Very necessary</th>
<th>Necessary</th>
<th>Not necessary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Basic computer skills</td>
<td>36</td>
<td>24</td>
<td>13</td>
</tr>
<tr>
<td>(how to use a computer in general such as turning on and off, open and run any basic computer applications)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Basic skills of using Internet applications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 E-mail</td>
<td>39</td>
<td>32</td>
<td>4</td>
</tr>
<tr>
<td>2.2 World Wide Web</td>
<td>36</td>
<td>35</td>
<td>2</td>
</tr>
<tr>
<td>2.3 Web board</td>
<td>30</td>
<td>42</td>
<td>1</td>
</tr>
<tr>
<td>2.4 Chat room</td>
<td>29</td>
<td>38</td>
<td>7</td>
</tr>
<tr>
<td>3. Web site creation</td>
<td>36</td>
<td>33</td>
<td>6</td>
</tr>
<tr>
<td>4. Web site evaluation</td>
<td>29</td>
<td>35</td>
<td>10</td>
</tr>
<tr>
<td>5. How to integrate Internet applications with TEFL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1 Gathering information from ESL/EFL websites</td>
<td>45</td>
<td>29</td>
<td>1</td>
</tr>
<tr>
<td>5.2 Creating lesson plans</td>
<td>34</td>
<td>36</td>
<td>5</td>
</tr>
<tr>
<td>5.3 Creating activities</td>
<td>42</td>
<td>31</td>
<td>2</td>
</tr>
<tr>
<td>5.4 Creating materials</td>
<td>40</td>
<td>32</td>
<td>3</td>
</tr>
</tbody>
</table>
Furthermore, according to the teachers’ workloads, they were also asked about the time when they were most likely to attend a training course. It shows in Table 6 that more than 70 percent of the teachers are most likely to attend a one-shot intensive training course taking about five days during a semester break (F = 60). Some of them chose to attend a training course on weekends during a semester (11.7 percent; F = 9) whereas 7.8 percent of them prefer to spend a few hours after school during a semester for attending a training course (F = 6). Only a few percent gave the option that they needed the special break for such a course during a school semester (F = 2).

However, the respondents were not given other options for learning such as having a technology coach at school, self-learning, and etc.

### Table 6: Time for a training course (N = 80, 3 non-respondents)

<table>
<thead>
<tr>
<th>Time appropriate for training</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. On weekends during school semester</td>
<td>9</td>
<td>11.7</td>
</tr>
<tr>
<td>b. 2-3 hours after school during a semester</td>
<td>6</td>
<td>7.8</td>
</tr>
<tr>
<td>c. 5 days for a one-shot intensive course during a semester break</td>
<td>60</td>
<td>77.9</td>
</tr>
<tr>
<td>d. other</td>
<td>2</td>
<td>2.6</td>
</tr>
</tbody>
</table>
A summary of the results

According to the data presented in this chapter, the study results can be summarized as follows

1. Most of the EFL teachers in the study use Internet applications for their instruction, including teaching preparation and teaching in classroom. Still, 20 percent of the teachers do not use the Internet at all.

2. The EFL teachers who use Internet applications have good opinions about using them for teaching EFL. This means that they could see the potentials of it. However, about half of the teachers identified that they used the Internet for their teaching preparation and less than half used the Internet for classroom instruction. According to their use either for teaching preparation or in classrooms, they have both positive and negative feelings when they actually use the Internet.

3. The teachers have many concerns about using the Internet for their instruction including professional, infrastructure, and administrative concerns. The professional concerns include a lack of knowledge, heavy workloads, and lack of students’ interest. The infrastructure concerns include a lack of computers and Internet access, problems with the quality of network connections, the poor quality of computers, and a lack of technical support. According to the study participants, the main administrative concern is an insufficient budget.

4. The teachers perceive that they need a training course in using Internet applications for EFL teaching. To what extent they see the training as necessary depends on the content of the training. While they see basic
computer skills, basic skills in using Internet applications, Web site creation, and Web site evaluation as necessary, the teachers consider knowledge of how to integrate Internet applications into EFL teaching as very necessary. This implies that basic knowledge of using the Internet is not enough for them. They feel that they really need training in using the Internet for their specific area of teaching—EFL.

All of the results summarized cannot be generalized to the population—EFL high school teachers in Thailand because of several reasons mentioned in the limitations of the study.

**Limitations of the study**

Throughout the chapter, the limitations of the study were presented and discussed. First, the data were obtained by using a survey only. The results, therefore, may not be clear or deep enough. Second, the survey did not gather perceptions from Internet non-users. This is an important part that can really show why some teachers do not use the Internet for their instruction. Their opinions about using technology might be one of the obstacles with which they decided not to use technology. Third, the survey predetermines a range of answers. Some questions were designed with a range of answers, so the participants might not enough chances to answer freely. Fourth, there are still other Thai teachers in different scale of schools not sampled. Moreover, the participants were from big schools located near universities. The results of the study, therefore, do not show the technology use of EFL high teachers in small and medium schools and
schools in rural areas. Fifth, there is lack of respondents from the East of Thailand. This is because of the semester break. It is, therefore, to note that the results and discussion of this study are presented with these limitations.

**Implications**

As seen from the conclusions and the discussion, there is a lot of information reflecting a current situation in using Internet applications in EFL teaching. This part, therefore, is to present the implications for future research, the Thai government, and higher educational institutions.

**Implications for future research**

This study investigated Thai high school teachers in using Internet applications for EFL teaching. The participants of the study were 80 high school teachers who teach EFL. These 80 teachers worked at public secondary schools all over Thailand. The results of the study, therefore, present the information of the EFL public school teachers. In order to obtain the complete picture, future studies should investigate private school teachers all over Thailand and then compare to the results of this study. The combination of information from public and private schools will surely represent the current use of Internet applications for teaching English as a foreign language in Thailand. Furthermore, there should be future research investigating the Internet use of EFL teachers at other levels, like elementary, or cram schools or other educational settings, in order to obtain a clear and complete picture of Thai EFL teachers’ use of Internet applications.
In addition, research investigating the Internet use of teachers in other content areas will provide the holistic picture of how teachers in Thailand use the Internet for their instruction.

This study was also limited to obtaining data from only a survey. So, there are some controversial parts that need further investigation. Many questions occurred after data analysis. These include only about 50 percent of the Internet users identified that they used the Internet for their teaching preparation and classroom instruction while all of them had a positive attitude towards the Internet. Second, why did the Internet non-users also consider a training course necessary for them? Third, how do they really implement the Internet with their traditional teaching, materials, or lesson plans? More in-depth investigation will explore more information in order to clarify the controversial points.

In addition, more varied techniques of data collection can make a triangulation of a study. An observation in classroom setting gives even more authentic picture of how the teachers use the technology. A journal throughout a semester or an academic year provides teachers’ reflections. A portfolio presents what the teachers have done in a year. A curriculum analysis leads to an obvious picture of how the teachers can integrate technology into their classroom instruction together with some barriers that might give fewer opportunities for technology integration. Such a technique can be used in order to obtain more in-depth information.

Implications for Thai government and higher educational institutions

As seen in the discussion part, the concerns raised by the teachers are about infrastructure and professional concerns. Both two kinds of concerns reflect that the
policies set up by governmental organizations (either NITCS or the Ministry of Education) are still unsuccessful even though the policies have been adopted for more than four years. However, the policies may be more fruitful when it is adopted for a longer time.

This means that the government should take more actions in such a policy. The government has a very good policy about infrastructure and personnel investment. However, the achievement of the policies can be seen only if the policies are completely adopted. If any steps of policy implementation are being done, it is the time to put more effort toward it.

For the technology infrastructure investment, a concrete plan and a budget are very essential. It is difficult to improve the infrastructure for schools all over Thailand at the same time. With the limited budget, a strategic plan must be designed. However, the development does not mean a one-time investment. The budget for maintenance is also essential. After developing infrastructure, a reasonable budget should be given to each school in order to maintain their infrastructure. And this should be updated regularly.

For the personnel investment, only concrete plan and budget cannot guarantee the achievement of the investment. The government needs to work with higher educational institutes or technology-training institutes in order to design a training model and a training course appropriate to the teachers’ real teaching situation. Even though there are some current courses provided by the Ministry of Education, all of the courses are about computer skills only. There have no been training courses for specific areas of teaching, which is why the teachers reflected that the knowledge of how to integrate the Internet for their EFL teaching is very necessary. This is also a trend mentioned by UNESCO that
there is “…an apparent tendency for curriculum contents to be more oriented towards basic computer literacy for the emerging/developing countries” (p. 3).

According to the standards of high school curriculum set by the Thai Ministry of Education, higher educational institutes can take an important role as a training institute. One of The Ministry’s expectations is that high school students are able to use communicative English fluently by using technology for their life-long learning. Therefore, EFL high school teachers are engaged in professional development of using technology for their instruction. The information about the training needs obtained provides at least a guideline of what the EFL teachers in the study need to know. A good training course should be designed to meet trainees’ needs. Since this study already investigated the teachers’ needs, there should be a next step of making use of this information. The researcher, as a university professor and a technology trainer for EFL teachers, will continue working for more in-depth information such as curriculum analysis, an analysis of the Ministry’s policy, and an interview of EFL high school teachers in order to obtain what EFL teachers need or at least perceive they need to know for integrating the Internet with their instruction. A teacher-training model will be created according to the information obtained and a review of literature. After that, a training course will be designed and implemented for EFL teachers so as to prove the model later.
BIBLIOGRAPHY


APPENDIX
The Questionnaire

Teachers’ use of and needs for Internet applications in TEFL

**Question 1:** Where do you have access to the Internet?

- □ At home
- □ At school
- □ Other (please specify…………………………..)
- □ Nowhere (please skip to Question 8)

**Question 2:** How many computers are there in your school for students? For teachers?

For students: …………… computers
For teachers: …………… computers

**Question 3:** When are computers with Internet access at school available to teachers and students?

<table>
<thead>
<tr>
<th></th>
<th>For teachers</th>
<th>For students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>a. before school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. during school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. after school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. on weekends</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Question 4:** Please indicate how often you use the Internet at school or at home to accomplish each objective listed below.

Occasionally = 1-5 times a week
Frequently = more than 5 times a week

<table>
<thead>
<tr>
<th>Goals of using the Internet</th>
<th>At school</th>
<th>At home</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Occasionally</td>
</tr>
<tr>
<td></td>
<td>Never</td>
<td>Occasionally</td>
</tr>
<tr>
<td>a. create instructional materials (i.e. handouts, test, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. gather information for planning lessons</td>
<td></td>
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<tr>
<td>c. access model lesson plans</td>
<td></td>
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<tr>
<td>d. access research and best practices for teaching</td>
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</tbody>
</table>
## Goals of using the Internet

<table>
<thead>
<tr>
<th></th>
<th>At school</th>
<th></th>
<th>At home</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Occasionally</td>
<td>Frequently</td>
<td>Never</td>
</tr>
<tr>
<td>e. make presentations for the classroom</td>
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<tr>
<td>f. communicate with colleagues/other professionals</td>
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<tr>
<td>g. communicate with student(s) outside the classroom/classroom hours</td>
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<tr>
<td>h. post homework or other class requirements or project information</td>
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<tr>
<td>i. other (please specify goals that you use the Internet for)</td>
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</tbody>
</table>

**Question 5:** Please check the response that best indicates your level of agreement with each of the following statements:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Internet applications can play an important instructional role in my classroom.</td>
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<tr>
<td>b. Using Internet applications in my classroom is likely to be disruptive to student learning and social development.</td>
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<tr>
<td>c. Internet applications can be used in my classroom to enhance the teaching of important skills.</td>
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<tr>
<td>d. Internet applications are best used for drill, remediation, or reinforcement of facts.</td>
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</tbody>
</table>


e. Internet applications are best used in classroom to promote students’ analytical, creative, and other “higher order” thinking skills.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

f. Internet applications can be used in my classroom to provide alternative learning approaches for students who are having difficulty learning.

g. Using Internet applications is an appropriate activity for some students.

h. Internet applications can be used in my classroom to make learning more interesting for all students.

i. I would like to learn as much as possible about how to use new computers and Internet applications to improve instruction in my classroom.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

**Question 6:** What other comments do you have about using the Internet in your teaching?

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**Question 7:** How do you feel when you use the Internet for your teaching preparation and classroom teaching?

7 a: For teaching preparation
☐ I don’t use the Internet for my teaching preparation
☐ When I use the Internet for my teaching preparation, I feel
………………………………………………………………………………………….
………………………………………………………………………………………….
………………………………………………………………………………………….

7 b: For classroom teaching
☐ I don’t use the Internet for my classroom teaching
☐ When I use the Internet for my classroom teaching, I feel
………………………………………………………………………………………….
………………………………………………………………………………………….
Question 8: What do you think are the most effective ways to use the Internet in EFL teaching?

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Question 9: What are your concerns about using the Internet for TEFL?

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Question 10: What do you need to learn in order to use the Internet well for your teaching and teaching preparation?

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Question 11: According to your workload, when are you most likely to attend a training course?

    □ On weekends during the semester
    □ 2-3 hours after school during the semester
    □ 5 days for a one-shot intensive course during a semester break
    □ Others (Please specify………………………………………..)

Question 12: According to your instructional needs, what should be in the content of a training course for you?

VN = Very necessary       N = Necessary       NN = Not necessary

<table>
<thead>
<tr>
<th>Content of the training course</th>
<th>VN</th>
<th>N</th>
<th>NN</th>
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</thead>
<tbody>
<tr>
<td>1. Basic computer skills</td>
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<td>(how to use a computer in general such as turning on and off, open and run any basic computer applications)</td>
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<tr>
<td>Content of the training course</td>
<td>VN</td>
<td>N</td>
<td>NN</td>
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<tr>
<td>-------------------------------------------------------------------</td>
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<tr>
<td>2. Basic skills of using Internet applications</td>
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<tr>
<td>2.1 E-mail</td>
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<td>2.2 World Wide Web</td>
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<td>2.3 Webboard</td>
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<td>2.4 Chatroom</td>
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<tr>
<td>3. Website creation</td>
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<tr>
<td>4. Website evaluation</td>
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<tr>
<td>5. How to integrate Internet applications with TEFL</td>
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<tr>
<td>5.1 Gathering information from ESL/EFL websites</td>
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<tr>
<td>5.2 Creating lesson plans</td>
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<tr>
<td>5.3 Creating activities</td>
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<td>5.4 Creating materials</td>
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<td>6. Others</td>
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<td>6.1</td>
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<td>6.2</td>
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<td>6.3</td>
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