2001

Internet-enhanced ESL education: a literature review

Yu Cao
University of Northern Iowa

Copyright ©2001 Yu Cao
Follow this and additional works at: https://scholarworks.uni.edu/grp

Part of the Bilingual, Multilingual, and Multicultural Education Commons, Curriculum and Instruction Commons, and the Language and Literacy Education Commons

Let us know how access to this document benefits you

Recommended Citation
https://scholarworks.uni.edu/grp/470

This Open Access Graduate Research Paper is brought to you for free and open access by the Graduate College at UNI ScholarWorks. It has been accepted for inclusion in Graduate Research Papers by an authorized administrator of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.
Internet-enhanced ESL education: a literature review

Abstract
This paper intends to present some of the most current research on the tremendous benefits which the Internet can provide to ESL education. Some Internet applications which can be used as active teaching and learning tools in the ESL classrooms are being presented in this paper, such as electronic mail, electronic discussion group or "lists," electronic forum, chat room, and keypal. Additionally, this paper intends to bring educators' attention to those issues which affect language learners' interests in using the Internet in their learning. Issues include the lack of training, accessibility of technology, and lack of feedback.
Internet-Enhanced ESL Education: A Literature Review

A Research Paper
Submitted to the
Division of Educational Technology
Department of Curriculum and Instruction
In Partial Fulfillment
of the Requirements for the Degree
Master of Arts in Education
UNIVERSITY OF NORTHERN IOWA

By
Yu Cao
March 2001
This Research Paper by: Yu Cao

Title: Internet-enhanced ESL Education: A Literature Review

has been approved as meeting the research requirement for the
Degree of Master of Arts in Education

May 10, 2001
Date Approved

Sharon E. Smaldino
Research Paper Reader

Mary C. Herring
Research Paper Reader

May 14, 2001
Date Approved

Rick Traw
Head, Department of Curriculum and Instruction
Abstract

The field of foreign language education has always been in the forefront of the use of technology to facilitate the language-acquisition process. The Internet, as the most dynamic information tool and communicative application has been implemented into the field of teaching and learning English as a Second Language (ESL). In order to promote Internet-enhanced ESL education and help ESL educators and students to be aware of the functions of this advanced educational technology, this paper intends to present some of the most current research on the tremendous benefits which the Internet can provide to the ESL education. Benefits include helping increase access to English language literature, developing critical literacy, enhancing students’ learning motivation, and meeting learners’ diverse learning styles. Some Internet applications which can be used as the active teaching and learning tools in the ESL classrooms are being presented in this paper, such as the electronic mail, electronic discussion group or “lists,” electronic forum, chat room, and keypal. Concerns about the factors which influenced the attitudes of the ESL educators toward the integration of the Internet into the curriculum are discussed. These concerns include teachers’ limited involvement in the design process of technology-enhanced curriculum, lack of technical training, limited accessibility of the technology, and teachers’ fear of being replaced by technology. Additionally, this paper intends to bring educators’
attention to those issues which affect language learners' interests in using the Internet in their learning. Issues include the lack of training, accessibility of technology, and lack of feedback.
### Table of Contents

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the problem</td>
<td>1</td>
</tr>
<tr>
<td>Significance of the Review</td>
<td>2</td>
</tr>
<tr>
<td>II. Methodology</td>
<td>4</td>
</tr>
<tr>
<td>III. Literature Review</td>
<td>7</td>
</tr>
<tr>
<td>Benefits of Using the Internet</td>
<td>7</td>
</tr>
<tr>
<td>Increasing English Language Literacy</td>
<td>7</td>
</tr>
<tr>
<td>Developing Critical Literacy</td>
<td>10</td>
</tr>
<tr>
<td>Enhancing Students’ Learning Motivation</td>
<td>11</td>
</tr>
<tr>
<td>Meeting Learners’ Diverse Learning Styles</td>
<td>13</td>
</tr>
<tr>
<td>Applications of Internet</td>
<td>13</td>
</tr>
<tr>
<td>Electronic Mail</td>
<td>14</td>
</tr>
<tr>
<td>Electronic Discussion Group or “lists”</td>
<td>16</td>
</tr>
<tr>
<td>Electronic Forum</td>
<td>16</td>
</tr>
<tr>
<td>Chat Room</td>
<td>17</td>
</tr>
<tr>
<td>Keypal</td>
<td>18</td>
</tr>
<tr>
<td>Teachers’ Attitude</td>
<td>19</td>
</tr>
</tbody>
</table>
Chapter 1

Introduction

Statement of the Problem

The use of technology in foreign language education has increasingly developed over the past few years. The Internet has emerged as a prominent new technology used in the education, business, and economic sectors of the whole world since 1983 (Schrum & Berenfeld, 1997). Meanwhile, with the focus on language, communication, and culture exchange in foreign language learning, foreign language teachers are continually pursuing the best ways of providing authentic materials and experiences that will improve their students’ knowledge and skills in learning a foreign language. The Internet transforms communication around the world, and confirms its promise to enhance the ways that language learners interact with the text, sounds, and images of a foreign culture. Thus, it is obvious that the Internet should play a major role in the foreign language classroom and has tremendous potential as a teaching and learning tool in foreign language education (Leloup & Ponterio, 1997).

However, the specific benefit for infusing the Internet into the foreign language classroom, and how to use it in instruction does not appear explicit to the foreign language professionals. Many foreign language educators are still seeking appropriate approaches to enhance their pedagogical strategies in using
the Internet (Bush & Terry, 1997). Although the Internet can offer many benefits to foreign language education, it is a dynamic educational medium that may present significant challenges to educators when they try to integrate Internet activities into the existing pedagogical models. As well as foreign language students also will meet these challenges when they are struggling to use this advanced educational technology to improve their foreign language learning (Lankes, 1997).

The hypotheses of this paper are the use of the Internet in foreign language education and the problems and challenges which influence the attitudes of foreign language teachers and the students toward integrating Internet as the educational tool into their teaching and learning process. These issues need to be addressed. In order to effectively infuse the Internet activities into present foreign language education help the students take the advantage of the interactive potential of the Internet and effectively use it to enhance their learning, educators should face and meet these challenges. They need to attempt to find the best means to resolve these problems and address new concerns about Internet-enhanced foreign language education.

**Significance of the Review**

This paper is intended as a general review of the literature to present some of the current pertinent research on the implementation of the Internet into teaching English as a Second Language (ESL). Through the review, it is possible
to identify the problems and provide the appropriate assumptions to resolve the related issues.

The paper consists of four chapters. The first chapter is the introduction, providing the overview of concerns and the necessary background to understand the issues. The second chapter demonstrates the instruments which are being employed to collect the information and data toward the application of the Internet in ESL education and the factors which influenced the use of the Internet in ESL teaching. The third chapter reviews the dramatic benefits of using the Internet in the ESL instruction, methods of applying the Internet in the ESL classroom activities, and the factors which affect teachers’ and students’ attitudes toward using Internet. The fourth chapter will discuss the results of the review, provide some approaches to resolve the problems, and suggest ways ESL teachers and learners can develop positive attitudes in implementing the Internet into the ESL education.
Chapter 2

Methodology

The choice of the methodology is dependent upon both the subject of the research and the related aspects of the research design. Birley and Moreland (1998) looked at methodology as, “a decision-making process that is predicated upon sets of background assumptions or paradigms. A paradigm is a theoretical model within which the research is being conducted, and organizes the researcher’s view of reality” (p. 30). Methodology can be classified into two categories: quantitative, the information can be quantified and then interpreted to make an argument about what the numbers revealed, and qualitative, understanding the information and interpreting the meaning (Birley & Moreland, 1998; Wood, 2000).

The Internet is increasingly becoming an important teaching and learning tool in foreign language education. Some experts and professionals have written many books and articles. In order to critically analyze the existing literature of this research, identify and locate the related information from a number of resources to support this paper’s ideas, the effective research method should be defined. This research paper employed content analysis as the research methodology which is a common term for different types of textual analysis. Textual analysis also can be called interpretive analysis which aim to mine the meaning of texts by studying them closely (Wood, 2000). Content analyses are a
very effective approach to analyze the various types of documents, such as the official, semiofficial, and unofficial (Birley & Moreland, 1998). Scott (cited in Birley & Moreland, 1998) has provided the criteria to evaluate these sources:

1. Authenticity – is the origin of the document certain?
2. Credibility – is the evidence biased towards a particular viewpoint?
3. Representativeness – is the document typical of similar documents of that period?
4. Meaning – is the research absolutely clear about the meaning of the document (p. 53).

The text that have been viewed and analyzed for purposes of this research paper include books, journal articles, on-line articles, and ERIC documents. The TESOL Journal is a specific journal about teaching English as a second language. The Internet TESL Journal is another effective resource for providing some thoughts and insights about this research. ERIC (Educational Resources Information Center) is a federally funded information system that provides access to educational related information (Schrum & Berenfeld, 1997)

To identify and analyze the resources and use criteria for evaluating the information is a very important step of the research design process. Three rationales for selecting the sources and exploring the research areas are: (1) to identify the benefits of using Internet applications in the ESL classroom curriculum (to answer the question why to use the Internet); (2) to introduce some
effective on-line applications which can be integrated into ESL teaching and
learning pedagogy (to answer the question how to use Internet in the ESL
education); (3) to demonstrate the factors which influenced the ESL teachers and
learners’ attitude toward incorporating the Internet applications into their teaching
and learning (to answer the question how to improve the effectiveness of using
the Internet).
Chapter 3

Literature Review

Benefits of Using the Internet

Briner (1999) identifies that constructivism is based on the elements of active student participation in which “they are constructing their own knowledge by testing ideas and approaches based on their prior knowledge and experience, applying these to a new situation, and integrating the new knowledge gained with the pre-existing intellectual constructs” (p. 1). The theory of constructivism provides an important theme in understanding the design of multimedia learning environment (Boyle, 1997). Learners are viewed as the active constructors of their knowledge of the world. When incorporated into the foreign language instruction, based on the theory of constructivism in designing the Internet-enhanced learning environment, the Internet offers the ESL students a number of significant educational benefits. This paper intends to present the benefits of Internet use in the ESL classroom instruction from the aspect of increasing ESL learners’ English language literacy, developing their critical literacy, enhancing their learning motivation, and meeting their diverse learning styles.

Increasing English language literacy. Moll (1994) defined literacy as “a particular way of using language for a variety of purposes, as a sociocultural practice with intellectual significance” (p. 201). With the development of computer-mediated communication, the definition of the literacy has broadened to
a wide dimension, and the computer may now be viewed as both a necessary
component of literacy and a means to achieve that literacy (Murray, 1991). The
Internet offers ESL students a powerful medium through which to develop their
literacy skills.

The Internet supports the development of reading skills by creating a
functional learning environment through access to a broad range of interesting,
relevant, and interdisciplinary textual material that engages students in
meaningful and authentic language processing (Shea, 1996). Because much of the
information presented on the Internet is written in English (Higgins, 1991), ESL
students have the opportunity to obtain the diverse collection of the authentic
English language text dealing with a wide range of the information themes. The
successful Internet search requires the use of critical reading skills, such as
predicting content, categorizing, guessing meaning from the context, skimming
and scanning. When the ESL students navigate through the large amount of the
information on the Internet, they unconsciously practice their reading skills, and
their reading skills are increased comprehensively.

Using Internet applications such as the electronic mail, bulletin board or
chat room in the ESL classrooms can excite, motivate, and encourage students to
use the computer in the realistic and authentic learning situations, which can
develop students' writing and thinking skills (Kroonenberg, 1995). When the
language students communicate with their teachers and classmates through the
Internet, they know who the audiences are and what is appropriate to write. They want to express their thoughts in comprehensible English, knowing that their classmates and the teachers will read what they wrote. Kroonenberg (1995), who once used e-mail in her ESL classes at the Hong Kong International School, stated that composing on keyboard seems to provide a certain motivation that she did not see when students compose their work by hand. Once the students become familiar with the computer system, they write more quickly and fluently, and it allows their ideas flow through their fingers. As the ESL students work individually and with their peers, they are trying to produce the analytical responses to the course materials and to each other’s writing. They begin to refine their critical thinking skills. Warschauer (1998) believes that the Internet contributes to written fluency. When ESL students write on the computer, they spend more time on and give greater attention to the task of composing. Furthermore, the Internet provides the opportunity for the ESL students to communicate with the native language speakers. Engaging ESL students in an intercultural interaction with native speakers of English creates an authentic context for using language to share information and to negotiate meaning (Hilles & Lynch, 1997).

As Mike (1996) describes, the use of Internet in the ESL instruction has also shown to promote ESL students’ communication skills in English. Language as a communication tool should be taught to help the learners to become
proficient by using the language, and not by just merely learning about the language. Computer-mediated communication through the Internet offers ESL students a conversational and text-based electronic learning environment through which they may acquire, share and discuss their ideas as they communicate in an asynchronous (e.g., via e-mail) or synchronous (e.g., via chat room) mode with those in their class, in other parts of the country, or across the world. Meanwhile, communicating with the native speakers in English allows ESL students to practice their specific skills such as negotiating, persuading, requesting information, and engaging in true life, authentic discussion.

Developing critical literacy. In addition to building English language literacy, the Internet can also be used to build critical literacy, which is the ability to locate and evaluate information (Mather, 1996). The Internet offers immediate access to up-to-date raw information on every conceivable topic from a huge variety of sources, but students must be made aware that the Internet sources unfortunately are not always useful and appropriate for their learning. It is crucial that students identify the validity of source materials. In the electronic information age, evaluating the credibility and validity of resources is the responsibility of a critically literate reader (Farah, 1995). To determine whether an Internet source is reliable and credible, students should use their critical literacy skills to analyze and synthesis the information. It is the instructors’ responsibility to create the activity and form the questions to help the students to explore the Internet and set
up their critical literacy ability. Through these activities, students learn how to be
the critical readers and thinkers and how to evaluate the validity and reliability of
research sources.

Enhancing students' learning motivation. Motivation is always a key issue
in the field of education (Fox, 1998). Skinner and Austin (1999) mentioned that
the main factors of motivation in the Internet-enhanced ESL instruction are 'real'
communication and 'real' community, and enhancement of personal confidence.
Internet provides the ESL students the opportunity to communicate with the
students from all over the world. It offers the learners a sense of having a 'real'
Audience when they are writing and sharing the information with each other.

Palloff and Pratt (1999) stated that the Internet is a place and is more like a
learning community which is the vehicle through which learning outcomes being
achieved on online. They also stated that “the creation of a learning community
supports and encourages knowledge acquisition” (p.163). The Internet provides
the ESL learners a sense of the learning community. In this learning community,
students appreciate being part of a particular social unit in which all the
participants are learners of the same foreign language, the English language. This
sense of learning community obviously helped the students understand how to
perform the tasks they were set, and that they quickly developed a body of shared
knowledge for each of the tasks. Most of all, they realized they had an important
part to play in participating in learning the English language. Any group, which
provides a sense of belonging to a community, and therefore fulfills the personal needs of learner, is providing intrinsic motivation to the students (Skinner & Austin, 1999). The benefits of the communication and community being viewed as ‘real’ by the students are many: interaction with different people and culture, developing thoughts and ideas, feeling part of a supportive social group, learning from each other, and caring each other’s learning (Palloff and Pratt, 1999).

Krashen (1987) pointed out that high motivation, self-confidence, and low anxiety are the recipe for positive language acquisition. Skinner and Austin (1999) stated that students mentioned they feel less anxiety and more confident than in other language learning situations when they are learning in the Internet-enhanced language learning environment. Anxiety is defined as a state of uneasiness and apprehension or fear caused by the anticipation of something threatening. Language anxiety has been said by many researchers to influence language learning, that too much anxiety may cause a poor performance (Scovel, 1991). Reducing the ESL students’ anxiety and increasing their self-confidence are on the same axis. Internet provides an equal and opened learning environment for the language learners. They are all in the situation to learn the same language. Kroonenberg (1995) stated that the keyboard and the screen seem less intimidating than humans, and shy students’ who have refused and reluctant to speak in class can come alive while creating meaningful communication via keyboard and screen.
Meeting learners' diverse learning styles. According to Galloway and Labarca (1990), most students can master the same learning content, but how they master it is determined by individual learning styles. Every person has a learning style, a set of biological or developmental characteristics, preferences, and tendencies that affect how one learns. The Internet has the ample potential to tailor the instruction to meet the individual learning styles (Bush, 1997). The introverted student who may not feel comfortable speaking out or asking for help in a face-to-face situation may flourish in the online setting, and all students gain the luxury of control over their time while attending classes and the ability to be more thoughtful about their interactions within those classes (Palloff & Pratt, 1999). Bush (1997) pointed out some other possibilities where the Internet can help the instruction to meet individual students’ learning styles. One suggestion was varying the time spend on various elements of instruction to help the learners who need more time to learn the same amount of knowledge or putting the information or knowledge in text on the screen to facilitate the learners who can get more comprehension on the words when they are written than when they are heard. As illustrated by Bush (1997), language instruction via technology will give students more control over what and how they learn.

Applications of Internet

Much of the research on foreign language instruction shows that students can learn effectively by using a variety of on-line applications of Internet
(Lafford, 1997; Meskill & Ranglova, 2000; Warschauer, 2000). The rapidly expanding use of computer networking in many parts of the world is transforming the way we communicate with each other. In the context of foreign language education, the Internet makes it possible for the language learners to access and communicate with the native language speakers and obtain the authentic information about the native countries. Through e-mail and other electronic communication tools, students have the opportunity to encounter and study in asynchronous and synchronous communication styles. The Internet opened multiple communication channels for foreign language education (Shetzer & Warschauer, 2000).

Varied applications of Internet have been used in foreign language classrooms. The Internet can be used to exchange information through electronic mail, electronic discussion groups or “lists,” electronic forums, chat rooms, and keypal, to obtain the information on a variety of topics through the World Wide Web.

Electronic mail. The Internet has been used by some language instructors in creative ways. One of these is the electronic mail (e-mail). According to Negal (1999), by the end of 1998, there were already over 100 million e-mail users with a predicted growth to just over 150 million users by the end of the year 2000. Undoubtedly, e-mail has become an integral part of our daily communication via the Internet.
From the description of Lafford (1997) about the electronic mail:

Electronic mail can be easily understood by comparing it with the U.S. Postal Service. Basically, you write someone's P.O. box address on the front of a postcard. You write a message on the postcard and put it into the mail system in a mailbox. (p. 239)

From Lafford's active description of electronic mail, it obviously demonstrates that electronic mail is a convenient and easily-used tool which allows an individual anywhere in the world to communicate with any other individuals. A message sender can compose and send the message at his convenience, day or night, regardless of whether the receiver is at home. With Internet connections, the physical locations of the students are irrelevant. Owing to its functions, some creative educators are making use of the Internet for foreign language education.

There are many language-learning projects now taking place on electronic mail (Marcos, 1994). In these projects, electronic mail is used as a means to deliver English language instruction. For example, teachers in the United States e-mail the Chinese students a series of assignments designed to help them improve basic writing skills. As they continue these lessons, they advance from basic to higher levels of ability in writing. Electronic tool is an excellent tool to support language learning and exposure the realistic learning environment to the learners (Lafford, 1997).
Electronic discussion group or “lists”. Electronic discussion groups or “lists” (sometimes referred to as “Listservs”) use e-mail to provide a forum where people of similar interests can participate in a professional dialog and share ideas and resources (LeLoup & Ponterio, 1997). There are many lists created for language teachers on the Internet. Some are service lists, which distribute information about all aspects of the technology used in language teaching. LeLoup and Ponterio (1997) introduced that the Intercultural E-Mail Classroom Connections (IECC) for K-12 list offered a service to help teachers to find partner classrooms for cultural exchanges via e-mail. Participation in electronic discussion lists can be an effective tool for the foreign language teachers’ professional development by exchanging their teaching experience and sharing their teaching strategies in using technology.

Electronic forum. An electronic forum is another application for using e-mail in foreign language education. Usually, to use an electronic forum, each student has an account that allows him or her access to the site housing the forum. The students can join groups or discussions based on membership and can view topics that were posted by the leader or other members. Instructors can post their questions on the forum and let the students answer them. Each student can send his or her answers on the forum. Meanwhile, the students can read the answers of other students. Kroonenberg (1995), who did a research at Hong Kong International School, stated that in the forum, everyone’s opinion is heard,
something that does not always occur during oral discussion. Students who were usually timid about participating in an oral discussion in a face-to-face class become more active participants in an electronic mode. She pointed out that for the most part of students' writing had improved in both fluency and organization as an additional benefit. They had a better understanding of English usage.

**Chat room.** A chat room in ESL education allows for synchronous, real-time communication. The obvious advantage of this type of Internet application being that messages are typed, sent, and received instantaneously, bringing the electronic communicative exchanges from the static to the more dynamic and becomes more like the oral face-to-face interaction of a traditional classroom (Pelletieri, 2000). It enables authentic conversation among participants anywhere in the world. Users enter a channel and talk by typing messages to all of the other people on the channel. In a chat room, two or more individuals can talk on-line about various topics. For example, language learners can be paired with each other by the foreign language teachers and be given a debatable topic to discuss. This kind of practice can stimulate students with authentic communication and help students develop their specific communication skills such as arguing, persuading, or defending a particular idea. They can get the immediately feedback from their partners. It is similar to real-time and face-to-face conversation in the English language. These practices can also enhance the speed of students' comprehension. In order to respond, students must understand what is being said.
Students who are reluctant to speak or cannot respond spontaneously in an oral class are able to create meaningful communication via the keyboard and screen (Kroonenberg, 1995).

**Keypal.** Writing to a penpal has been viewed as an interesting learning activity and has benefit for foreign language students. Having a "keypal" (an electronic penpal) becomes more fun for the foreign language learners. Teachers can pair their students with a keypal either within their own class, from other classes or other countries. The teachers may ask students to gather information and write on specific topics or allow students to choose their own topics. One-to-one exchanges can be very effective if both participants are actively involved. Keypals also can be advanced to one-to-many and many-to-many communication. Within the language class, the teacher can divide students into groups for e-mail communication. For example, if the students read a story after the class, they can write a summary, critique the story and send it to other members of their keypal group via e-mail. Although it may seem artificial for students to write to classmates with whom they may meet every day and communicate face-to-face, the practice can be effective in helping students improve their writing and reading skills in English. If the students' keypals live in other places or in other schools on the other side of the world or if the participants come from different cultures, the experience will be more stimulating for the students to open their eyes to explore the outside world.
Teachers' Attitude

As just described, the Internet provides a multitude of educational benefits for the ESL education. However, although the Internet can be a powerful tool in the foreign language education, it depends entirely on those who use it. Some concerns about the teachers' attitudes and the factors, which directly influence their attitudes, should be taken into consideration when the educators attempt to integrate the Internet into ESL classrooms.

Teachers are the foundation of our educational institutions. They define the instruction and activities in the classroom. Instructional technology will not reach its full potential without their support (Aust, Allen & Bichelmeyer, 1989). Teachers, as the gatekeepers to their classroom, do ask the questions about whether or not they should use the computers as a central or even substantial part of classroom instruction (Cuban, 1986). In other words, effective use of the educational technology ultimately depends on the knowledge and skills of the teacher, the person with the greatest impact on the learner's learning process (Cuban, 1986; Healy, 1998; Palloff & Pratt, 1999). Therefore, teachers' attitudes toward Internet applications and the effectiveness of integrating it into the ESL teaching and learning process need to be considered. Many studies have been conducted to examine the teachers' attitudes toward on-line applications. In general, study findings revealed that most educators are excited about using the Internet in ESL classroom instruction (Bush & Terry, 1997). Meanwhile, the
research demonstrated that there also exist some factors which hindered the
development of the integration of Internet in the ESL education. Factors include
teachers' involvement, teachers' training, accessibility to technology (Cuban,
1986; Healy, 1998; Palloff & Pratt, 1999), and teachers' fear of being replaced by
these educational technologies (Cuban, 1986; Martinez-Lage, cited in Borchardt,
1997).

In order to enhance the ESL instructors have positive attitudes toward
using Internet in their instruction, recognition of the factors that influence the
teachers' attitudes toward Internet applications in their instructional process need
to be defined. It is important to help teachers incorporate effective methods into
their teaching.

**Teachers' involvement.** Research by Cuban (1986) indicated that the
underutilization of the educational technology, such as the film, instructional
television, and computers, in the schools might be because the decisions to use
these educational technologies was made at the administrative level and by non-
teachers. Teachers were seldom consulted or included in the class design process.
Healy (1998) also pointed out that there is an atmosphere that when the schools
are incorporating the technology in teaching, some non-teachers can hold the
more power than the educators to make decisions.

The ESL educators should take an active leadership role in determining
the approach in which the Internet applications are used to support educational
goals. School administrators should include teachers in the discussion of establishing the educational technology plan (Cuban, 1986; Palloff & Pratt, 1999). The suggestion should remind administrators that the teachers should be included in the process of designing the technology-powered curriculum and integrating the educational technology into the academic curriculum. These issues will directly affect teachers’ attitudes toward integrating the Internet into their ESL instruction.

**Teachers’ training.** Providing sufficient training to meet teachers’ needs in using educational technology has ranked near the top of virtually every survey or study conducted on determinants to successful implementing technology in education (Brody, 1995; Healy, 1998). In their study, Pina and Harris (1993) reported the anxiety or lack of confidence that teachers display towards computers and other new technologies is a subject which should be of primary importance to educators, since many teachers feel ill-prepared and resist the integration of computers and other technologies into their teaching. Many studies showed that lack of training or insufficient teacher preparation was the major obstacle contributing to teachers’ high levels of anxiety and lack of confidence in computer use. Therefore this lack of confidence brings about the under use of computers in schools (Cuban, 1986; Okinaka, 1992; Shick, 1996). Amico (1995) suggested that computer experience is significantly related to a more positive attitude toward computer use and that an introductory course in computer can
influence teachers' attitudes toward computers in a positive direction. This evidence shows that training is critical.

How can teachers gain the skills necessary to make effective use of technology to enhance their students' learning, to reduce their own anxiety level, to increase their own confidence, and understand the advanced educational technology? The answer is very clear: pre- and in-service opportunities for technology education (Kassen & Higgins, 1997). The best possible way is to provide enough training to those teachers, such as providing teachers with workshops, intensive programs in teacher preparation or introductory computer courses to give teachers the opportunity to learn more about the instructional uses of computers. Instructors who integrate the Internet into their ESL courses must themselves be comfortable with and competent users of computer technology. The integration mentioned here supports curriculum goals and objectives. Technology training should not only instruct teachers to aware of how to use the technology, but also to teach them how to incorporate the technology into their curriculum (Brody, 1995; Kassen & Higgins, 1997). Only in this way, they will be able to teach students how to use that technology to improve language learning, and they will be able to develop interesting and valuable ESL instruction.

Accessibility of technology. Several studies indicated that one of the factors that influences teachers’ attitude toward educational technology and their
use of such technology in their teaching is accessibility (Cuban, 1986). The meaning of accessibility of technology in foreign language education includes two aspects: one is computers are available to teachers at their stations, another is teachers can easily have access to people who can serve as experts to support and teach teachers how to use the technology. Funding is the main issue which affects infrastructure and technology availability in schools, and the budgets are going through rough times at all levels of education (Bush, 1997). It will be hard for schools to implement technology and provide enough technical on-site support as long as technology is seem as something beyond the other educational requirements that are currently needed. In order to successfully integrate the Internet into ESL teaching and learning process, institutions need to demonstrate concerns about teachers’ needs in accessing the Internet. Technical support should be provided to ensure that teachers will gain confidence and skills in using the Internet in their teaching.

**Teachers’ fear.** Many researchers, in their studies, mentioned those teachers’ perspectives about incorporating technology into their teaching process and their fears of being replaced by the educational technology (Cuban, 1986; Martinez-Lage, cited in Borchardt, 1997). Technology alone is not what makes a difference in ESL education; the use of the technology coupled with sound pedagogical principles is also necessary (Martine-Lage, 1997). Warschauer (2000) states, “The Internet itself does not constitute a method, any more than
books, or blackboards, or libraries constitute a method. Rather, each teacher shaped her teaching according to both her own beliefs and the more general socio-cultural context” (p. 45). Technology is the instructional tool in the hand of the teachers. Computers should never replace the teachers, but educators cannot ignore the power that technology has to enhance both their teaching and the learning process of students. Furthermore, those who understand and recognize this power, and who know how to use the technologies available, will eventually replace those who do not (Borchardt, 1991).

Students’ attitude

A number of studies have shown that learning with computers is more effective than traditional methods and boosts students’ learning motivation (Kroonenberg, 1995; Skinner & Austin, 1999; Thuy, 1992). Most of the foreign language learners have positive attitudes toward applying Internet as a tool in enhancing their learning (Lafford, 1997; Meskill & Ranglova, 2000). However, the existence of the constraints which influence the learners’ technology use in the learning process is also a major problem for the educators to take into consideration. In this research paper, three constraints have been identified which affect learners’ attitudes are discussed. They are students’ training, technology accessibility, and lack of feedback.

Students’ training. The notion of ease of use is one of the vital factors in the creation of a positive impression toward educational technology in foreign
language learning (Lafford, 1997). Instructors should keep this notion in mind at any time when planning to integrate on-line activities into language curriculum. Lafford (1997) suggested that training on using the Internet should be done at the very beginning of a course, so that the students can get used to and feel comfortable with the use of the technology in their own learning environment. This training also ensures students will take more advantage of the Internet throughout the whole semester. Lafford suggests “clearly written instructions on their use should be handed out to students so they can access the technologies on their own time without extensive hand-holding by either the instructor or a lab assistant” (p. 242). Otherwise, the learners will be quickly overwhelmed and frustrated by the complexity of the Internet applications and finally lost their enthusiasm to employ the Internet in their study.

Technology accessibility. Meskill and Ranglova (2000) reported that constraints did work against the implementation of the Internet-enhanced curriculum, particularly in terms of the accessibility of the technology. Lafford (1997) presented his research about the application and reactions to the use of e-mail in the foreign language classes at Arizona State University. He found language learners’ reactions to e-mail technology were mixed. Many students thought the use of e-mail was a new and exciting way to practice their writing skills and motivated them to write messages to each other using the native language. “Getting messages from a variety of students helped expose me to a
greater vocabulary...I was constantly looking for an opportunity to seek out new people to communicate with” (p. 244). However, this research was conducted before the renovation of the technology facility at the Arizona State University and many students described their frustration with access to technology to do their e-mail assignments. Students were very critical of the lack of easy access to e-mail and this colored their view of the Internet-enhanced learning activities. It is obvious that educators need to carefully consider variables related to their students’ learning environment, that pertain to context of technology use, when they create the technology-enhanced curriculum. Meanwhile, educators also need to seek the ways to help the students to find computer access.

Lack of feedback. The feedback includes two aspects. One is facilitation of the course activities and learning process guidelines by the instructors. Another is the reaction from the students’ peers. Lafford (1997) found that giving too much freedom in an e-mail assignment for the ESL students, the students were at a loss when find topics to say and felt lack of the feedback to help them to correct their mistakes in grammar. Results from the study of Meskill and Ranglova (2000) about one online reading class demonstrated that although students uniformly announced their favorable attitude toward using the on-line application in their study was high, some students apparently remained uncomfortable. Instructors speculated that these students found the lack of direct guidance, such as assigned topics and a structure of presentation, more challenging. Moreover
only half of the students responded that they could receive comments on written work from classmates. Many students noted a great deal of disappointment when they got online and found they had no messages waiting for them (Lafford, 1997). These problems will decrease learners' learning motivation and cause the negative attitude toward integrating the Internet application into their learning process.

To avoid those problems of the lack of the feedback during students' learning, teachers should play an important role in facilitating and providing the guidelines for the learners. In the telecommunication foreign language learning environment, the teachers need to encourage and facilitate students' interactions, provide the immediate feedback to students' assignments, keep the critical frame of course outcomes and objectives, and monitor students' participation.
Chapter 4

Conclusion

The field of foreign language has always been in the forefront of the use of technology to facilitate the language-acquisition process from the use of film, instructional television, and computer to the increasingly developed Internet. As the power of the Internet increases, it will undoubtedly play a critical role in foreign language education, particularly in ESL instruction. Researchers have demonstrated that the Internet offers many benefits for the foreign language education such as increasing the ESL students' English language literacy, developing their critical literacy skills, enhancing their learning motivation, and meeting their diverse learning styles.

In summary, while the Internet has already contributed many effective functions in ESL teaching and learning and the attitudes of the ESL educators and learners toward the Internet application in the classroom are positive, there still exist some challenges that educators need to consider. Teachers are an essential and critical component in the teaching and learning process. They play a very important leadership role in the ESL instructional activity. Their attitudes toward integrating the Internet into the ESL classroom and the factors which influenced their attitudes, such as their involvement in the designing process of the academic curriculum, teachers’ training, accessibility of technology, and teachers’ fear of being replaced by the technology, will directly affect the effectiveness of
integrating the Internet into the ESL classroom. In addition, as the main participants in ESL education, foreign language learners also play a vital role in the process of integrating the Internet into the language curriculum. Factors, such as the students' technology training, technology accessibility, and lack of feedback, should be carefully analyzed. As the educators, we are advised that all of these factors and lessons should be taken into consideration when ESL educators attempt to integrate the Internet into the ESL courses and improve the effectiveness of using the Internet in language learning.
Reference


