The Use of ICTs in English Reading of Thai EFL MBA Students in Thailand
(การใช้เทคโนโลยีในการอ่านภาษาอังกฤษของนักศึกษาปริญญาโทสาขาบริหารธุรกิจ
ในประเทศไทย)

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Abstract

This study aimed to explore the levels of ICT skills and attitudes towards the benefits
and problems of ICT use in English reading. The surveyed participants were 240 Thai EFL
MBA students enrolled at eight major universities in Bangkok and four major universities
outside of Bangkok. Twelve students were also selected for an in-depth interview based on a
purposeful sampling of the maximum variation. Grounded in multiliteracies and English
reading frameworks, the study was an explanatory mixed-method study that combined
quantitative and qualitative studies. Major data sources included the edited Information and
Communication Technology Use and Skills for Learning English Questionnaire and face-to-
face interviews. The quantitative results demonstrated that the interviewed participants rated
themselves as unskilled in most activities except Word processing, Presentation software,
Spreadsheets, and Securing their electronic devices. According to the qualitative results, the
benefits of ICTs included the convenience of ICT use, the use of an equalizer, the motivation
to learn, authentic language, and open-mindedness while the challenges of ICTs included
some limited Internet access, less face-to-face interaction, health issue, and Internet
dependency.
CHAPTER 1

INTRODUCTION

Statement of the problem

As a result of the Information and Communication Technologies (ICTs), today teachers are required to adopt new approaches to teaching so that they can prepare their students to take an effective part in the new literacy environments. Students in the 21st century are faced with different difficulties in relation to linguistics, culture, and school contexts. Therefore, teaching English reading in English as a second (ESL) or foreign language (EFL) classrooms, is evolving dynamically due to the multiplicity of communication channels. In order to come to grips with these challenges, students need to process new skills and strategies to understand literacies used in constructing meaning from multiple modes of communication. Similarly, teachers are required to be exposed to a variety of teaching methods and techniques in order to appropriately deal with different demands by the students.

English Reading is important in that it is often the foundation for developing other skills such as listening, writing, and speaking (Chang, 2005). Reading is particularly indispensable for graduate students since they have to spend a large amount of time during graduate study reading English materials in order to gain deeper levels of understanding (Pimsarn, 2009). Because of the complexity and amount of materials that graduate students must cover each semester, it is crucial that their English reading be proficient enough to fully understand the texts.
In the educational setting, ICTs can help teachers improve their English language instruction. Thailand, for one, is facing this pedagogical challenge which requires its learners to take an active part and make effective use of the available technological resources in their learning environment. Cope and Kalantzis (2004) called this pedagogical shift a change from literacy society to a multimodal literacies society.

Previous studies have examined the role of ICTs in English language learning, and some studies focus on the beliefs and outcomes from the teachers’ point of view. Yunus (2007), for example studied Malaysian EFL teachers’ perception use of ICTs in their classrooms at the secondary level, whereas other researchers such as Giampapa (2010) looked at the teachers and students’ multiliteracies identities within the Canadian elementary classroom context. However, the use of technology in English reading by EFL MBA students studying in different universities in Thailand has not been explored. It is assumed that the use of ICTs can help EFL students improve their English language skills (Bao, 2006). Therefore, the present study addressed ICTs and second language reading and examined the students’ perception of their English learning by using ICTs in and out of the classroom.

**Purposes of the study**

The objective of this current study was to investigate the use of ICTs in learning English reading among Thai EFL MBA students studying in major universities in Bangkok and outside of Bangkok. More specially, this study aimed to explore how students used ICTs in English reading, level of ICT skills and their attitudes towards the benefits and problems of ICT use in their English language learning. Below are the research questions:

1. How skilled are Thai EFL MBA students in using ICTs?
2. What are their perceived ICT preference and impacts of ICT in English reading?
3. What are their perceived benefits of using ICTs in learning English reading?
4. What are their perceived challenges to using ICTs in learning English reading?

Significance of the study

The present study contributes this research in the area of multiliteracies and English learning and teaching as it examined Thai EFL MBA students' perceived ICT skills, impact of ICTs towards English reading, benefits and challenges of ICT use both in and out of classroom contexts. There was little or no research investigating the use of ICTs in learning English reading while studying for an MBA in different universities in Thailand. Therefore, this study explored what language learning using ICTs meant to them as a member of the global community. It was hoped that the study would provide researchers and teachers helpful implications in relation to teaching and learning English through technology.

Scope of the study

1. The participants of this mixed-method study were limited to Thai EFL MBA students enrolled in public, private universities inside and outside of Bangkok. To be specific, a total of 240 students from 12 universities (eight inside Bangkok and four outside of Bangkok) participated in this large scale study.
2. The four universities inside Bangkok included Chulalongkorn University, Thammasart University, Srinakarintharawiroth University, Kasetsart University, Sripatum University, Dhurakij Pundit University, Bangkok University, the University of the Thai Chamber of Commerce. The four universities outside Bangkok included Naresuan University, Burapha University, Hatyai University, and Payap University.
3. The data collection for the study was carried out from July-October, 2012.
4. The use of ICTs was investigated using two main research instruments namely (1) the edited Information and Communication Technology Use and Skills for Learning English adapted from EDUCAUSE (2004, as cited in Jung, 2006) and Jung (2006) and (2) interviews.

**Basic assumption**

In the present study, it was assumed that the participants of this current study honestly responded to all tasks assigned since the objectives of the research were clearly stated by the investigator before each task.

**Definitions of terms**

**Digital Divide:** Digital Divide refers to the gap between those with regular effective access to digital technologies and those without (Dickard & Schneider, 2005).

**English as a Foreign Language (EFL):** According to Oxford (2001), a foreign language is “a language studied in an environment where it is not the primary vehicle for daily interaction and where input in that language is restricted” (p. 359).

**Globalization:** According to Mok & Welch (2003), globalization refers to the multifaceted set of processes which result from social interaction among people on a world scale. Simply put, globalization can be defined as processes that increase world-wide exchanges of national and cultural resources. Examples of globalization include advances in transportation and communications infrastructure as well as the rise of the Internet (Wikipedia, 2013).

**Information and Communication Technologies (ICTs):** ICTs are defined as a range of technological devices and available resources used to communicate, create, store, and manage information (Tinio, 2003).
**Interviewed participants:** Interviewed participants refer to the 12 EFL MBA students who participated in the in-depth interviews.

**Surveyed participants:** Surveyed participants refer to the 240 EFL MBA students who completed the Questionnaire.

**Securing devices:** Securing devices refer to software programs learners used to secure their electronic devices. Those programs include firewalls, antivirus software and etc.
CHAPTER 2

LITERATURE REVIEW

In order to understand how students’ attitudes associate with the theory of ICTs and English language teaching, a short overview of factors involved in English teaching and learning is presented. In this section, literacy, multiliteracies, and related research on ICTs and English teaching and learning will be discussed.

Literacy

The concept of literacy and the text itself in the last twenty years has offered a challenge to teachers and students. The term literacy was redefined as a result of the influence of the New Literacies studies. Within the New Literacies Studies, there is increasing acknowledgment of the multifaceted interface between local and global literacies (Brant & Clinton, 2006). Bodomo, Lam, & Lee (2003) define literacy as the ability to code and decode linguistic and other symbolic systems for communication and information processing.

Nowadays, literacy is increasingly pluralized and multiplied in school discourses. The definition of literacy is extended to include digital, audio, visual, gestural, and spatial modes of communications of these elements (Mills, 2007). Simply put, literacy refers to the ability to think critically and analytically. It also includes the ability to access information quickly, evaluate it appropriately, and understand international and local cultures (Warschauer, 2002).

In the 21st century, literacy is no longer just the ability to read and write; it is now viewed as the ability to construct and understand the different possibilities of meanings made available by differing textual forms associated with diverse domains such as the Internet, videogames, visual images, graphics, and layouts (Gee, 2003).

In this section, the author briefly discusses the definition of literacy. The next part of the study examines the theoretical aspects of multiliteracies.
Multiliteracies

The term multiliteracies refers to literacies that go beyond the meaning of being able to read and write. Also, its meaning has been extended beyond reading and writing printed-based materials. The term multiliteracies were first introduced to educational researchers by the New London Group (1996). These scholars called for literacy practices that can respond to the changing social situations of global capitalism.

Multiliteracies framework has been used to expand the view of language learning in the 21st century, combining the multiple linguistic and cultural differences and the use of ICTs (Harrison, O’Rouke, & Yelland, 2009; The New London Group, 1996). In addition, the concept of multiliteracies is helpful since it provides a means of investigating how students use ICTs such as the computer and the Internet to actively communicate, read, write, or design using a variety of text formats. By acknowledging the various activities students use to participate in creative, multifaceted modes of communication, a multiliteracies framework offers teachers ample opportunities to deal with the variety of literacy practices students already use outside of school (Heron-Hruby, Wood, & Mraz, 2008). The New London Group argue that all meaning making is multimodal in nature and that new information communication technologies and media make it unreasonable to mention literacy as a singular term or to consider literacy as being based on a written text (Borsheim, Merritt & Reed, 2008).

Applying multiliteracies to educational setting, the teaching and learning of multiliteracies extends the meaning of text to visual and digital modes of learning as well as to the social skills critical for communicating while participating in such learning. In short, pedagogy of multiliteracies assumes that teachers are able to cope with texts on a broader basis than is typically the case for print-based, alphabetic literacy (Alvermann, 2004).
During the technology-based learning society, the notion of literacy has dramatically shifted from the conventional sense of reading and writing only print text to an expanded sense of reading and writing multiple forms of non-print texts (Miller & Borowicz, 2006; Westby, 2010). Therefore, teachers need to reconceptualize what literacy is and what literate skills are required for the twenty-first century. The use of multiple texts and media forms allows students with the opportunity to comprehend and relate to the increasing complexity and interrelationship of different modes of meaning (Anstey & Bull, 2006; New London Group, 2000; Pullen & Cole, 2010).

Multimodal texts permit students to experience information both a global as well as a local context (Kalantzis, Cope & Harvey, 2003). To be specific, multiliteracies framework allows students to use various mediums in learning such as video games, films, graphics, and visual images. Therefore, it is the teacher’s role to engage students with the tools and technology that they are already familiar with (Pullen & Cole, 2010).

In this section, the author briefly describes the notion of multiliteracies. Benefits of using ICTs in English language learning and teaching will be discussed in the next part.

**Benefits of Using ICTs in English Language Learning and Teaching**

One of the many challenges English teachers facing today is preparing their students for globalization and technological revolution. The emergence of these new tools is advantageous for English language learning and teaching for the following reasons.

First, ICTs can be a powerful tool to extend educational opportunities. ESL/EFL students have unparalleled opportunities to engage with authentic learning experiences (Kramsch, 1998). ICTs provide students with opportunities for the acquisition and mastery of challenging English patterns (Pino, 2008). Pino also argues that generally, ESL/EFL students do not have natural exposure to the target language out of the classroom and
therefore, ICTs can facilitate exposure to the second or foreign language. Students not only practice reading authentic texts, they can also practice listening, speaking and writing in real contexts. For example, in online settings, ESL/EFL students can chat with other students and practice numerous language learning activities such as asking questions, giving answers, and posting comments. Also, they can help each other correcting the language use. Other researchers (Alverman, Hagood, & Moon, 1999; Hobbs, 2001; Mraz, Heron, & Wood, 2003) have suggested that practicing higher-order thinking skills on media and popular culture texts can help students acquire strategies for effective reading comprehension in general.

Second, one distinctive characteristic of ICTs is that they can help learners to go beyond time and space. For example, Tinio (2003) argues that teachers can use teleconferencing technologies to help students who live in different areas learn English simultaneously. In addition, teachers and students no longer have to rely entirely on printed materials kept in libraries for their educational purposes. With the Internet, students can get access to a wide variety of learning materials anywhere and at any time.

Third, ICTs help students get access to resource persons. For instance, they can practice reading authentic texts or talk to native speakers of English and chat with friends all over the world (Tinio, 2003). Tinio also points out that one of the most frequently cited reasons for using ICTs in the classroom is to prepare current students for a workplace where ICTs are everywhere.

Fourth, students can learn the language in a non-threatening way. In English class, most EFL students might be required to read or participate in reading tasks in front of others. In such cases, self-consciousness and the fear of being humiliated can cause frustration and anxiety. Therefore, practice English reading using ICTs in a non-threatening atmosphere might help EFL learners read better (Pino, 2008). Pino (2008) also notes that ICTs are advantageous because students can practice the language without embarrassment. That is,
they can practice the target language as many times until they are confident in their language use. Pino also mentions that ICT tools can provide students with the flexibility to select their own learning materials suitable for their different interests, learning styles, and proficiencies. Therefore, Pino suggests teachers to introduce flexible, resource-based ways of learning which enable autonomy. Pino concludes that ICTs can provide a private learning environment that can lead to students’ optimal achievement. She also argues that learners can practice the language at their own pace without experiencing intense feelings of anxiety.

Fifth, ICTs provide an equal opportunity for students with different cultural backgrounds and characters, and consequently it might help lessen anxiety as well as increasing involvement in the use of language. ICTs can be a rich resource to obtain English language proficiency. Pino, for example, argues that the language learning process requires a language-rich environment in which students can be regularly exposed to different skills. Therefore, she posits that ICTs can offer interesting learning activities such as clips, colorful graphics, motion pictures, video, and sound. Students also have limitless access to English lessons, PowerPoint presentations, tutorials and assessment. All of these activities usually provide immediate feedback helping students to practice genuine language use (Pino, 2008).

In this section, the author briefly describes benefits of using ICTs in English language teaching and learning. The problems of ICTs in English language learning will be discussed in the next part.

**Problems of ICTS in English Language Learning**

Even though ICTs are a powerful tool in English language learning and teaching, there are still challenges in implementing ICTs in education.

First, there are disparities in terms of access to ICTs among big cities and rural areas, which are classified to geographical locations and administrative division (Wang, 2002).
Mason, Manton and English (2005) argue that ICTs have created a divide among students. That is, poor students who have limited budget and resources at school or at home are largely affected by this technological revolution. Also, learners with disabilities are affected as well. Jerome & Barbetta (2005) argue that it is difficult for these students to participate in activities that require the use of technology since some schools do not prepare equipments suitable for physical challenged people.

The second challenge is lack of professional development opportunities for English teachers. Many pre-service and in-service teachers expect continuous training so that they can keep up with new ICT tools that reflect technological changes in the 21st century. The lack of professional development makes it more difficult for English teachers to use ICTs in classroom setting. Other challenges involve large-class size, inadequately trained teachers, and a test-driven curriculum focusing on rote learning (Warschauer, 2003).

Another problem is inaccurate use of English among bloggers. McPherson (2006) suggests that there are a lot of slangs, graphics, as well as incorrect language use. These incorrect patterns can affect students whose English is not their first language since they may try to use new language patterns and are not able to detect incorrect language form.

Lastly, Mason, Manton, & English (2005) argue that Internet can distract students from their work. They mentioned that the ICT tools are likely to promote shallow thinking and therefore might lead to short-term memory problems as well as difficulties concentrating. In addition, when students are bombarded with unlimited information, they tend to look for irrelevant information, or are distracted to play online games instead of focusing on their work. In addition to Mason, Manton and English (2005), Pino (2008) suggests one interesting point. She claims that students might not be able to differentiate between correct from incorrect, updated and out-of-date sources and these situations might affect their decision-making and meaningful learning.
In this section, the researcher provides a brief overview of benefits and challenges of ICT use in education. Relating research on ICTs will be discussed in the next section.

**Related research on ICTs and English Teaching and Learning**

Recent research has been conducted investigating the use of ICT and English teaching and learning. In this section, the researcher will divide the studies into four main categories 1) ICTs and ESL/EFL, 2) ICTs and English reading, 3) Perceptions of ICTs among teachers and students, and 4) ICTs research conducted in Thailand.

**ICTs and ESL/EFL**

Li & Walsh (2010) explored the use of ICTs in English language classes in China. The purpose of their study was to investigate the current ICT environment in Chinese secondary schools and to look at 450 EFL teachers’ use of ICTs in their classroom practice. They examined the factors that influence decisions related to ICT use among the teacher participants. Data were collected using a questionnaire and the focus group of 33 teachers in 12 schools in Beijing. Results showed that EFL teachers recognized the benefits of ICTs for themselves and for their students. However, findings revealed that teachers were more likely to fit the new technology into current practice according to their current teaching beliefs rather than to change their beliefs about teaching English. Regarding their computer skills, almost all teachers were found to be competent in using computers, yet few were satisfied with the current provision of ICT training. While ICTs were viewed as necessary and of benefit to language learners, teachers’ uptake of technology in teaching was still very low. Negative influences affecting technology uptakes included external factors such as insufficient hardware, software, digital resources, technical support, and funding, whereas internal factors included teachers’ beliefs about the use of ICTs. Li & Walsh suggested that
EFL teachers needed to be offered proper training that deals with both technical and pedagogical issues and there is a need for the development of Computer-assisted Language Learning (CALL) products that bring together the best practices in EFL learning. Lastly, the authors recommended that comprehensive reform of the curriculum, teaching materials, assessment procedures and ICT usage needed to be introduced so that there will be more authentic language practice and a more integrated use of technology.

Unlike Li and Walsh who conducted their study with Chinese EFL teachers, Hussain, Niwaz, Zaman, Dahar and Akhtar (2010) explored the effectiveness of a technology-based learning environment on Pakistani EFL students’ achievement in learning English. An experimental design study was conducted with 90 high school students. Results from the pre- and post-tests indicated that the students in the experimental group performed better and it helped the students to develop their abilities in knowledge, comprehension and application. Findings also demonstrated that the existing methods of teaching English do not involve the use of ICTs. Therefore, the authors suggested that ICTs should be introduced as a new subject in schools and colleges.

**ICTs and English Reading**

With Taiwanese students and Taiwanese context, Tseng (2010) investigated how online reading affected EFL students’ reading comprehension. The participants included 88 Taiwanese EFL enrolled in the first year English course at a university in northern Taiwan. The Questionnaire for Online Reading Comprehension with multiple-choice questions and open-ended questions was used as the main instrument. Results showed that the participants preferred reading printed text to hypertext on computer screens as it increased the cognitive demands of the students. Also, the findings showed that factors that may have influenced students’ performances when reading hypertext included eyestrain, background colors of web
pages, and skipping lines. Tseng suggested that teachers should be careful when selecting appropriate webpages for students and that they should adjust the setting of computer screens and of web pages. Tseng also pointed out that teachers should teach students how to read hypertext and further research is required to determine if the eyestrain comes from reading text or whether it is because students just do not like to read English articles online.

Bakar, Noor, Azman, Nor & Hamat (2011) explored the effectiveness and usefulness of online reading tools (Intelligence English Language Literacy System, i-ELLS) through the students’ evaluation of an online reading system. The study was conducted for one semester with questionnaires and focus group interviews served as the main data. The participants were 33 postgraduate students from eight countries namely Malaysia, Jordan, Iran, Iraq, Libya, Yemen, China and Saudi Arabia. The findings showed that the participants had a positive feedback while using the reading tools and that i-ELLS can be useful and effective when the system is used with a purpose, and the students are willing to use it. Bakar et al. suggested that learning without a purpose, even though with state-of-the-art learning tools will be detrimental in the students’ learning process. The researchers also recommended that students should be aware of the learning process and outcomes of the activity as it might help them to become critical thinkers.

**Perceptions of ICTs among Teachers and Students**

Sheard and Carbone (2008) examined teachers’ perceptions of their students and the influence of these perceptions on their teaching practice. Students’ expectations and experiences of their ICT degrees and learning environment were also investigated. The study was conducted by a team of six researchers at five of the Victorian campuses of Monash University in Australia. The results demonstrated that the teachers saw the students' online learning environment as supplementary to classes whereas the students actually used it as a
replacement for classes. In addition, results showed that some teachers were concerned about Asian students. They mentioned that Asian learners wanted the solution rather than going through with the discussion beforehand. The researchers concluded that both teachers and students had difficulty achieving the ideals of the learner-centered, technology-enhanced educational paradigm. They remarked that although technology seems to foster student-centeredness by allowing students to take more responsibility for their learning, the way the students use it appears to conflict with this ultimate goal of student-centered learning and that is why future research should be done dealing with this issue.

Unlike the previous studies that reported the use of ICTs in classes, Aydin (2011) tried to find out whether Turkish EFL students have anxiety while using internet in-and-out of class. The instruments used to gather data included a test, a background questionnaire and an Internet Anxiety Scale adapted from the Computer Anxiety Scale (CAS) designed by Cohen and Waugh (1989). Results showed that the Internet was not a source of anxiety among the participants but there were some variables related to the Internet anxiety. The variables included gender, computer and Internet connection ownership, Internet instruction, daily use rate, Internet familiarity in years, and information level on the Internet. To be specific, the authors suggested that female participants felt more uncomfortable when they used the Internet than males did. Also, Internet connection ownership helped make the participants more comfortable with the ICT use.

**ICT Studies in Thailand**

Within the Thai context, James (2008) investigated academic staff’s perceptions of ICTs and eLearning in a Thai university. An online web-based survey using a self-administered questionnaire was used to collect the data. The participants included postgraduate lecturers conducting teaching assignments on all international masters’ programs
during the academic year of 2007. The framework consisted of six major elements, namely University Strategy, University ICT Provision, Program Delivery and Performance, Funding, University ICT Support, and Collaboration. The results demonstrated that the staff perceived that the university did not appear to have a strategic institutional policy for eLearning and the university attempted to promote the use of eLearning only for selected courses. Also, the participants believed that the level of use in eLearning technologies within the program delivery and consequent student interaction appears to be poor. The researcher concluded that the university tried to develop the provision of both blended programs and to develop fully online eLearning environments in the future but the results showed that this development was not widespread, nor was it in-depth. The researcher suggested on how the university could meet the growing need to balance learning and quality practices through an extended university-wide pedagogical provision using ICTs.

While James focused on lecturers’ perception of eLearning, Rumpagaporn & Darmawan (2007) explored the students’ critical thinking skills and attitudes towards ICTs and the perceptions of ICT classroom learning environment in Thailand. The participants were 150 students completing the questionnaire. Also, 30 students and five teachers from 10 schools in the ICT pilot project were interviewed about their views on the advantages, the limitations, and the future of the project. The overall findings revealed that students were helped to learn critical thinking skills and their attitudes toward ICTs were made more positive through integrating ICTs into the classrooms. The researchers concluded that ICT integration will be successful when resources and technical supports are fully provided and that teachers play a key role in ICT implementation. Rumpagaporn & Darmawan suggested that longitudinal, ethnographic studies should be conducted to find out how teacher characteristics such as levels of critical thinking skills and attitudes towards ICTs influence students outcomes.
Tanakachane (2005) investigated the level of ICT integration and factors affecting ICT integration of Thai English teachers in vocational schools in Nakhon Ratchasima province. The participants included 64 Thai teachers teaching English in 22 vocational schools. The questionnaires, interviews and observations were used to gather the data. The results showed that the perceived level of ICT abilities of the participants was very low. The negative factors included ICT proficiency, insufficient ICT devices, and insufficient ICT training. However, the participants showed their positive attitudes toward the integration of ICTs into teaching even though they had low ICT skills. Tanakachane suggested that future research is needed to find out further information related to vocational teachers for better and more effective teaching methods with innovation methodology and that students, teachers, and administrators should be included to obtain more complete data.

These aforementioned studies have investigated the role of ICTs in English instruction. Some studies focused on the beliefs and outcomes from the teachers’ point of view, some studies have been conducted with EFL students outside Thailand. However, the use of technology by EFL MBA students in both the Bangkok metropolitan area and other areas across Thailand has not been explored. It is assumed that the use of ICTs can help EFL students improve their English reading skills (Bao, 2006). Therefore, the present study addressed ICTs and English language learning and examined the students’ perception of their learning English reading by using ICTs in and out of the classroom.
CHAPTER 3

METHODOLOGY

This study used a mixed-method research design including quantitative and qualitative approaches. The research design was chosen to accommodate the research questions addressed in the current study. The rationale behind the use of mixed-method was to ensure completeness of the data. Tashakkori & Teddlie (1998) have suggested that the combination of strategies within one research study can be advantageous in a number of ways.

This section discusses the research methodology used in this study. After listing four research questions, the researcher provides information about the surveyed participants and the instruments used in the study. In addition, the data collection, the data analysis will also be provided in detail later. In this study, there are four main research questions as follows:

1. How skilled are Thai EFL MBA students in using ICTs?
2. What are their perceived ICT preference and impacts of ICT in English reading?
3. What are their perceived benefits of using ICTs in learning English reading?
4. What are their perceived challenges to using ICTs in learning English reading?

Participants

The surveyed participants of this study were 240 Thai EFL MBA students at eight major universities in Bangkok and four major universities outside of Bangkok. The surveyed participants were from different demographic areas namely the North, the Central, the East, the South, and Bangkok metropolitan area.

The mean age of the participants was 27.5 years with the minimum of 21 and maximum of 42. There were 93 male (40%) and 147 female (60%) participants in the sample. The participants’ characteristics such as gender, age, instructional type, demographic area will be shown in detail from Table 1 to Table 5.
Table 1

*Characteristics of 240 Surveyed Participants: Gender*

<table>
<thead>
<tr>
<th>Gender</th>
<th>No.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>93</td>
<td>40</td>
</tr>
<tr>
<td>Females</td>
<td>147</td>
<td>60</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 2

*Characteristics of 240 Surveyed Participants: Age*

<table>
<thead>
<tr>
<th>Age</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-25</td>
<td>95</td>
<td>39.5</td>
</tr>
<tr>
<td>26-30</td>
<td>89</td>
<td>37</td>
</tr>
<tr>
<td>35 up</td>
<td>56</td>
<td>23.5</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3

*Characteristics of 240 Surveyed Participants: Instructional Type*

<table>
<thead>
<tr>
<th>Instructional Type</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>120</td>
<td>50</td>
</tr>
<tr>
<td>Private</td>
<td>120</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 4

*Characteristics of 240 Surveyed Participants: Demographic Area 1*

<table>
<thead>
<tr>
<th>Demographic Area</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inside Bangkok</td>
<td>160</td>
<td>66.5</td>
</tr>
<tr>
<td>Outside Bangkok</td>
<td>80</td>
<td>33.5</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 5

*Characteristics of 240 Surveyed Participants: Demographic Area 2*

<table>
<thead>
<tr>
<th>Demographic Area</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangkok</td>
<td>160</td>
<td>66</td>
</tr>
<tr>
<td>North</td>
<td>20</td>
<td>8.5</td>
</tr>
<tr>
<td>East</td>
<td>20</td>
<td>8.5</td>
</tr>
<tr>
<td>South</td>
<td>20</td>
<td>8.5</td>
</tr>
<tr>
<td>Central</td>
<td>20</td>
<td>8.5</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
<td>100</td>
</tr>
</tbody>
</table>

**Instruments**

The instruments used for the quantitative data collection procedure were as follows:

1. Background Information Sheet. This survey elicited personal information such as gender, age, instructional type as well as the demographic area.

The questionnaire was divided into three main parts. The first part is an 11 closed-ended item five point Likert scale asking the respondents to self-rate their ICT skills. The second part is a 15 closed-ended items relating to the students preference of ICT use and the impact of ICTs toward English reading. The last part is an open-ended question items relating to benefits and problem of ICTs in English reading. The questionnaire was translated into Thai and the surveyed participants were asked to complete the questionnaire within 5-10 minutes. The reason the investigator used a paper-based questionnaire instead of an online questionnaire was in order to guarantee a high response rate. That is, the investigator physically visited each university and asked students to complete the questionnaires.

The original questionnaire was developed in the United States in 2004, by the EDUCAUSE Center for Applied Research team. Then, Jung (2006) modified it to make it more relevant to EFL college students in Asian contexts. However, data from the pilot study showed that the questionnaire was too long and too complicated. For example, there was one part asking the participants to describe the four words (Computers, the Internet, English, Learning English) using a metaphor. In addition, the original questionnaire covered other skills such as writing, listening, speaking, and vocabulary.

The pilot study participants and a reading expert suggested that (1) the questionnaire be translated into Thai, (2) the questionnaire be reduced from ten pages to three pages focusing only on the area of reading. Also, many pilot study participants skipped completing the metaphors. Some who completed them just copied the examples given resulting in the answers not being meaningful to them. After consulting an expert, the metaphor part was deleted and eventually, the questionnaire consisted of 26 closed-ended and two open-ended questions.

**Qualitative Data collection approach**

The interviewed participants included 12 Thai students who were selected based on a purposeful sampling of the maximum variation (Merriam, 1998). The interviewed
participants were students from 12 universities across Thailand. That is, the researcher asked students from eight universities from the Bangkok area and four universities outside Bangkok to participate in this study.

The rationale for using the maximum variation was the belief that findings from a small sample of greatly diversified yields shared important patterns. It was assumed that different participants with different characteristics could offer good insight. That is, both individual factors and environmental factors were taken into consideration. The selection criteria were based on characteristics that have been found to play a role in English language learning such as gender, age, and demographic area.

The materials used for the qualitative data were as follows:

*Interviews.* The researcher interviewed each participant individually during the study. Each interview lasted about 20 minutes and all interviews were audio-taped. The participants were asked general questions concerning how they used ICTs for English reading, their ICT skills, and their attitudes towards the benefits and problems of ICTs in English reading. Interviews were conducted as semi-structured and in-depth interviews, in which the researcher used general questions as guidelines rather than specific questions. Questions were open-ended so that each participant could report their perception of learning English using ICTs. All of the participants were asked to speak in English or in Thai or both during the interviews. After the interviews were conducted, data were then transcribed, categorized, analyzed, and interpreted.

Examples of Interview questions are as follows:

1. How would you rate your level of English?
2. How would you rate your skill level using ICTs?
3. What is your attitude towards the role of technology in English reading?
4 In your own experience, what are the benefits of ICTs in your English reading?
5 Do you have any problems or challenges in using ICTs in your English reading?
   Please explain in detail.

Reflection. The additional method of data collection in this study was reflection notes or analytic memos from interviews. Ely (1991) mentioned that these devices serve a significant role in moving analysis forward and since analytic memos can be thought of as conversations with oneself about what has occurred in the research process or what has been learned.

Data Analysis

The researcher used the Statistical Package for Social Sciences (SPSS) version 20.0 to analyze quantitative data. In order to answer Research Question 1 and 2, descriptive statistics such as means and standard deviations were used to describe the basic features of the data.

According to the qualitative data analysis procedure, analysis was completed based on the data set interview transcripts, and reflections from interviews. The researcher searched for common themes that emerged from the data while reading the information. In order to gain complete information, the researcher reread and rechecked the themes again.

In addition, throughout the study, the researcher consulted existing literature and reading experts to gain more comprehensive analysis from the data and to ensure that her interpretation was proper and impartial. After coding the data, relevant quotations were grouped with their related codes and then they were translated into English by the researchers, and then translation were verified with a bilingual expert who has sufficient translation experience between Thai and English. To ensure the anonymity of the participants, pseudonyms were used.
CHAPTER 4
RESULTS

In this chapter, quantitative results from the questionnaire and qualitative results from the in-depth interviews are reported. Basic statistical analyses were employed to answer research questions one, two, three and four.

1. How skilled are Thai EFL MBA students in using ICTs?
2. What are their perceived ICT preference and impacts of ICT in English reading?
3. What are their perceived benefits of using ICTs in learning English reading?
4. What are their perceived challenges to using ICTs in learning English reading?

Question One: ICT Skills in general

Quantitative Results

In this study, there were 240 surveyed participants, 60% were female students (147 participants) and 40% were male students (93 participants). The surveyed participants were asked to evaluate their level of ICT skills in using 11 selected applications. They were given five scales: (1) do not use, (2) very unskilled, (3) unskilled, (4) skilled, and (5) very skilled. The results are presented below:

With reference to the research question one, the results show that the surveyed participants rated themselves as unskilled in almost activities except Word processing ($M = 3.78$), Presentation software ($M = 3.70$), Spreadsheet ($M = 3.43$), and Securing their electronic devices ($M = 3.04$). Overall, the respondents did not seem confident in their technology skills.

The results also showed that the surveyed participants reported lower skills for online library search ($M = 2.89$), Graphic ($M = 2.78$), Creating/Maintaining blog ($M = 2.76$), and computer maintenance ($M = 2.75$). However, the lowest self-perceived ICT skills were
creating web pages ($M = 2.09$). The results suggested that the respondents’ skill levels were not high enough especially for advanced application such as creating web pages and computer operating systems, and that the respondents appeared well aware of this fact.

Table 6

*Means and Standard Deviations for Perceived ICT skills for selected applications in descending order*

<table>
<thead>
<tr>
<th>Computer skills</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word processing</td>
<td>3.78</td>
<td>.638</td>
</tr>
<tr>
<td>PowerPoint</td>
<td>3.70</td>
<td>.732</td>
</tr>
<tr>
<td>Spreadsheets</td>
<td>3.43</td>
<td>.778</td>
</tr>
<tr>
<td>Securing devices</td>
<td>3.04</td>
<td>.907</td>
</tr>
<tr>
<td>Online library resources</td>
<td>2.89</td>
<td>1.009</td>
</tr>
<tr>
<td>Graphics</td>
<td>2.78</td>
<td>.968</td>
</tr>
<tr>
<td>Creating and maintain blogs</td>
<td>2.76</td>
<td>1.086</td>
</tr>
<tr>
<td>Computer maintenance</td>
<td>2.75</td>
<td>.971</td>
</tr>
<tr>
<td>Creating and editing video</td>
<td>2.65</td>
<td>1.007</td>
</tr>
<tr>
<td>Computer operating system</td>
<td>2.49</td>
<td>1.031</td>
</tr>
<tr>
<td>Creating web pages</td>
<td>2.09</td>
<td>1.013</td>
</tr>
<tr>
<td>N = 240</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Qualitative Results**

All of the 12 interviewed participants mentioned that they owned cell phones, laptops, tablets and normally spent two to three hours online for personal and academic purposes. They also called themselves ‘computer literate’. According to the research question one concerning ICT skills, the results of the interviews are in line with what they reported in the questionnaire. That is, the majority of the interviewed participants mentioned
that they were good at using Word Processor, Powerpoint Presentation, Excel and Securing device programs. In addition, all of the interviewed participants stated that they were able to do the basic online library search but they were not experts. However, the majority of the interviewed participants mentioned that they did not have hands-on experience in creating web pages or editing videos. They also added that they wanted to learn more if they had a chance.

**Question two: Perceived ICT Preferences and Impacts of ICTs on English Reading**

**Quantitative Results**

**ICT Preference in English courses (Items 12-19)**

With regard to question numbers 12-19 in the questionnaire, when asked whether they preferred taking courses that use no technology, the mean was 3.41 on a scale of one to five indicating the neutral answer. When asked whether they preferred taking courses that use *limited* technology features, the mean was 3.22 indicating a neutral answer. In line with the first two questions, when asked whether they preferred taking courses that use technology *extensively*, the mean was 2.77 indicating that they did not favor the use of technology *extensively*. However, when asked whether they preferred taking course that use technology *exclusively*, the mean was 3.28 indicating a neutral answer.

In addition to being asked about attitudes toward ICT preferences in English courses, the surveyed respondents were asked whether their instructors use information technology well in their courses. Overall, the respondents rated their instructors' ICT use favorably. That is, the mean was 3.50 indicating that they were quite satisfied with their instructor use of technology. Half of the respondents (50%) agreed to the statement, "My instructors use ICTs well in my courses," while 9.3% (out of 240) did not think that their instructors used ICTs well. A slightly more than 35 % of the respondents remained neutral.
In addition, when asked whether they *primarily* use information technology in courses to improve their comprehension, the mean was 3.85. Also, when asked whether their school needs to give them more training on the information technology that they are required to use in their courses, the mean was 3.65.

Table 7

**Mean and standard deviation for ICT preferences**

<table>
<thead>
<tr>
<th>Questions</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. I primarily use ICTs in courses to improve my reading comprehension</td>
<td>3.85</td>
<td>.825</td>
</tr>
<tr>
<td>19. My school needs to give me more training on ICTs that I am required to use in my courses.</td>
<td>3.65</td>
<td>.850</td>
</tr>
<tr>
<td>17. The instructors’ use of ICTs in my courses has increased my interest in the subject matter.</td>
<td>3.54</td>
<td>.867</td>
</tr>
<tr>
<td>16. Overall, my instructors use ICTs well in my courses.</td>
<td>3.50</td>
<td>.828</td>
</tr>
<tr>
<td>12. I prefer taking courses that use no ICTs</td>
<td>3.41</td>
<td>.749</td>
</tr>
<tr>
<td>15. I prefer taking courses that use ICTs exclusively.</td>
<td>3.27</td>
<td>.848</td>
</tr>
<tr>
<td>13. I prefer taking courses that use a limited level of ICTs.</td>
<td>3.22</td>
<td>.921</td>
</tr>
<tr>
<td>14. I prefer taking courses that use ICTs extensively.</td>
<td>2.77</td>
<td>1.024</td>
</tr>
</tbody>
</table>

**Impact of ICT use in English reading (questions 20-26)**

The students were given eight questions regarding the impact of ICT use in English reading. Based on a scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree, the mean score of the question items 20-26 were about 3 or slightly above, which indicates that the students had a neutral feeling toward the use of ICTs in their English reading. As Table 8 shows, the highest means were given to "ICTs help me to
summarize what I have read" ($M = 3.62$), "ICTs help me to better understand what I read" (3.60), and "ICTs help me to locate the main idea" ($M = 3.60$). On the other hand, "ICTs help me to better understand complex or abstract concepts" and "ICTs help me to understand the writer's purpose" received the lowest scores (mean = 3.37 and 3.40 respectively). Even though these two items received the lowest mean, the scores were slightly above 3.00. This result indicated that the respondents felt neutral about the usefulness of ICTs in terms of the impact of helping them understand abstract concept or understand the writer's purpose.

Table 8

*Means and Standard Deviations for the Impact of ICTs in English Reading*

<table>
<thead>
<tr>
<th>Questions</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>24. ICTs help me to summarize what I read.</td>
<td>3.62</td>
<td>.879</td>
</tr>
<tr>
<td>20. ICTs help me to better understand what I read.</td>
<td>3.60</td>
<td>.885</td>
</tr>
<tr>
<td>21. ICTs help me to locate the main idea.</td>
<td>3.60</td>
<td>.822</td>
</tr>
<tr>
<td>25. ICTs help me to check whether what I read is right.</td>
<td>3.50</td>
<td>.776</td>
</tr>
<tr>
<td>26. ICTs help me to control over my own reading.</td>
<td>3.49</td>
<td>.772</td>
</tr>
<tr>
<td>23. ICTs help me to understand the writer's purpose.</td>
<td>3.40</td>
<td>.885</td>
</tr>
<tr>
<td>22. ICTs help me to better understand complex or abstract concepts.</td>
<td>3.37</td>
<td>.868</td>
</tr>
</tbody>
</table>

**Qualitative Results**

With regard to the ICT preference, ten out of twelve interviewed participants mentioned that they preferred taking English courses that use ICTs *extensively* while only two interviewed participants mentioned they preferred taking English courses that use ICTs *exclusively*. None of the interviewed participants mentioned they preferred taking courses that use *no* ICTs. All of the interviewed participants noted that they were aware of the benefits of
the ICT in English language learning. With regard to their instructors' use of ICTs, the majority of the interviewed participants mentioned that they were not satisfied with their instructors' level of ICTs. They elaborated that overall their ICT skills were better than those of their English teachers. Mintra, a female student from a university outside Bangkok, stated that:

Mintra: ICT can promote independent learning and that is why I preferred taking English courses that use ICT extensively. I can practice English at my own pace. I really enjoy learning using ICTs. ICT tools such as the Internet and the computer help increase my interest in learning English reading. However, I would like to say that my English teachers are so behind. They are not computer literate. Sometimes, they need my help. I don’t think I need more training, I think my English teachers need more training on how to use ICTs in classroom.

With regard to the impact of ICT use in English reading, the majority of the interviewed participants mentioned that they used ICT tools to help them better understand complex or abstract ideas and to summarize what they read. Praw (pseudonym), for example, added that ICTs allowed readers to save time since they could offer instant information and provided interesting learning experiences. Her comments are as follows:

Praw: As an MBA student, the Internet is very important for me. For example, when I read an article about Finance or any topics that are really difficult, I need to log on to Google and then search for what I just read. There are an abundance of related websites and they really help. MBA professors often assign something difficult to read. Therefore, I need to search for easier versions. What I do is, log on to YouTube to view the lectures, tutorials or other related lessons. It's easier if you can read the texts, listen to the speakers, and look at the pictures at the same time.
While Praw gave an example of her experience, Atichart (pseudonym) mentioned an interesting issue about time and space. Below are his comments:

Atichart: What I like most is that ICTs help me to summarize what I have read. It really saves time. I don't need to buy many expensive books. I don't need to go to the library. For example, nowadays, there are so many MBA programs around the world and I think they are competing with one another. Many professors have posted their comments, their responses about theories, practice and everything. Fortunately, I can learn from that. By reading those comments and responses, it is like they are summarizing the main ideas for you. However, the most important thing is the issues of accuracy and reliability. They are important too.

The examples above showed that the participants enjoyed using ICTs in their English reading extensively. In addition, ICT tools can be used to help the students better understand complex ideas and to summarize what they read.

**Question Three: Benefits of ICTs**

**Quantitative Results**

The majority of the surveyed respondents thought that they could benefit from using ICT in learning English. As summarized in Table 9, their responses to benefits of using ICTs were categorized into four main groups: (1) the fast and easy to use, (2) the authentic learning experience, (3) the increasing motivation, and (4) the various forms of information.
Table 9

Benefits of ICTs

<table>
<thead>
<tr>
<th>Benefits of ICTs</th>
<th># Accounts</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Fast and easy to use,</td>
<td>117</td>
<td>49</td>
</tr>
<tr>
<td>(2) Authentic learning experience.</td>
<td>35</td>
<td>14.5</td>
</tr>
<tr>
<td>(3) Increasing motivation, and</td>
<td>26</td>
<td>10.8</td>
</tr>
<tr>
<td>(4) Various forms of information,</td>
<td>20</td>
<td>8.3</td>
</tr>
<tr>
<td>(5) Other</td>
<td>29</td>
<td>12</td>
</tr>
<tr>
<td>No answer</td>
<td>13</td>
<td>5.4</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
<td>100</td>
</tr>
</tbody>
</table>

**1. Fast and easy to use**

From the questionnaire, the surveyed respondents suggested that the most valuable benefit of using ICTs is the fast and easy to use (117 accounts). They spoke highly of easiness and convenience. Their comments include, "I can practice English reading all the time since it is easy and convenient. The participants stated that they could do more research quickly and more conveniently when using technology. In relation to general learning English reading, the majority of the respondents stated that technology helps their learning English become "easy, fast and convenient". Some mentioned using ICTs as "With technology, it's easier for me to comprehend what I read while other simply stated "easy and fast" or "easy and convenient. With regard to learning English vocabulary, many stated that it was easy for them to understand new vocabulary since they could use online dictionary. For example, they stated they just clicked link and then they could immediately learn new
vocabulary. They also stated that when using technology they could improve vocabulary skills and expand their repertoire of vocabulary more easily and more quickly.

(2). Authentic Learning Experience

Authentic learning experience was seen as one of the major benefits of using ICTs in learning English reading as well (35 accounts). Many students mentioned that with technology they could read foreign newspaper free of charge and it's real English. Other students mentioned that they could talk to native speakers of English about the topics they just read from the news and that ICTs help them in evaluating and understanding the texts better. Many respondents stated that they improved English reading and other skills namely listening, speaking and writing.

(3) Increasing motivation

Many surveyed respondents mentioned that learning English with technology could help them increase their motivation to learn as well as a genuine interest in English (26 accounts). They stated that "Technology helps make English reading more enjoyable." Some stated that "I want to learn more because learning is fun." In addition, a few students mentioned "Learning is not boring anymore. With technology, it makes difficult lessons interesting".

(4) Various forms of information

Another aspect of benefit the surveyed respondent valued was that technology provides a wide variety of information. For example, many respondents briefly mentioned "various kinds of information" and "I learn a lot from using technology. It is not just English, vocabulary, but the world around me." Other mentioned that "technology also offers various
forms of learning". That is, they could read online texts, listened to the video clips in order to better understand what they read. In addition, a few students said "When using the Internet, I can expand my horizon since there is a lot of information out there for me".

**Qualitative Results**

In addition to the questionnaire, 12 MBA students were selected to answer the third research question concerning the benefits of using ICTs in learning English reading. The students' responses were categorized into five themes as follows.

1. **Convenience of ICT Use**

   Regarding the convenience of ICT use, all 12 interviewed participants mentioned that with the Internet, their learning of English became easier and faster. For example, Patcha (pseudonym), a female student from a public university in Bangkok discussed her positive attitudes towards using technology in the classroom. She consistently indicated that technology could help her learn English more efficiently. With state-of-the-art technology, she could practice reading English faster and easier. Below is her comment:

   Patcha: I can say that my English reading is much better. Normally, I spend like 1 or 2 hours on YouTube. I don't just listen to the music but I love reading the comments. If I don't understand any words, I just look them up in the online dictionary. It's so easy, so fast. Just like that. I don't really post my comments. I just love to read those comments. Some comments are written by native speakers of English, some are not. It's ok. I can learn new vocabulary and learn more about other cultures, too.

   In line with Patcha, Songpob, a male student from a private university in Bangkok added that:
Songpob: With technology, learning English is much easier, faster, and more comfortable. For example, I am using an iphone and a Blackberry and I can practice English reading by using applications. For me, it's the easiest way to learn reading English. In addition, I love listening to music videos on Youtube, you can search any song lyrics and then you will come up with new vocabulary. Then, you just look them up in the online dictionary. It's so easy. You can also do more research on grammar and structure such as the tenses. Whatever you want from google.com. Everything is up there, it's up to you whether you want to learn or not. What I like most is that it's so real.

These two examples demonstrate that the Internet can serve as a huge library for obtaining varied types of information. That is, technology can be used as a tool for research-based learning. These interviewed participants also emphasized the value of the ICTs for learning English and keeping up with real language.

2. The Use of an Equalizer

Two interviewed participants noted an interesting idea about ICTs. They mentioned that ICT was one of the best educational equalizers. Praw, a female student from a public university, added that ICTs help make the world borderless and consequently, learning without barriers can help students become smarter and more visionary. Below are her detailed comments:

Praw: I think ICTs play a big part in student' learning and development. With technology, students can become smarter, more visionary, and open-minded. Teachers do not need to spend so much time teaching since the students can do more research on their own. With ICTs, students are armed with knowledge. You
know, knowledge is power. Learning without barriers can help lessen the disparity between the rich and the poor. People around the world can exchange ideas. They don't need to be in the same room. That's why I call it learning without barriers.

In agreement with Praw, Atichart, a male student from a public university in Bangkok mentioned that:

Atichart: Knowledge is not necessarily in the library, like 100 years ago. Knowledge is everywhere. You can be anywhere searching for everything you want. Anywhere, anytime. At present, children do not need to go to the library to study, or to learn more about the world. They don't need to buy textbooks. I can say that ICTs are like having an equalizer. That is, students in big cities and students in small towns can have an equal chance to learn. The education will have more quality.

These two excerpts illustrate how ICTs play a vital role in the students' lives. That is, ICTs can be used as an education equalizer helping bridging the rich and the poor.

3. Motivation to learn

Many interviewed participants mentioned that they wanted to learn English more because the mode of learning was dynamic, interactive, and appealing. One interesting response was from Wasu. He mentioned that the Internet added an element of interest and joy to the learning process. The following is his comments about the usefulness of practicing English on the Internet.
Wasu: There are so many creative computer programs that you can use to learn English. With those innovative programs, students will become more motivated to learn. It is like they are playing games and are learning at the same time. For example, I have both a smart phone and a tablet. I think I "unconsciously" practice English reading by using my smart phone applications. In addition to my smart phone, I love reading eBooks from Kindle and iphone. I don't feel like I am reading. It is so fun and I am motivated to learn more, to read more.

Beside Wasu, Ladda, a female student from a private university in Bangkok stated that:

Ladda: I am motivated to learn more about English because it's so fun. For me, learning and practicing English are not boring anymore. When you log on to the Internet and read the online news, you can also watch video clips. It's so real, so interactive. It's fun to watch. You can practice reading and listening at the same time and you learn more about the world around you. Also, if you don't get it, you can read it or watch it again and again.

This example illustrates that the Internet offers an alternative way of learning English. It provides students with additional opportunities for drills and practice.

4. Authentic Language

The majority of the participants indicated that the Internet is a very useful tool to gain authentic use of English. Duan, for example, suggested that she could learn new idioms from the Internet. The following are her comments:

Duan: I will say that I learn a lot from youtube especially everyday-used expressions, slangs, and idioms. What interest me now are hip-hop slangs. It is
interesting because I don't know what they are talking about. It's so different from what my teachers have taught me. These slangs are not taught by Thai teachers but they are real. I will say the language you find on youtube is real.

Rattana, a female student from a private university in Bangkok, also added that:

Rattana: I can say that reading the newspaper is not important anymore. I mean, you don't need to read the newspaper. You just log on to facebook and tada. Your friends are posting their comments about the most updated news, something that was hot at that time. You learn the language and it's real. It's authentic.

These examples demonstrate that ICT tools and other technological resources can give language learners the flexibility to select their own learning materials adapted to their distinct interests and capabilities. ICTs can also promote the students' social interaction and creates an authentic discourse community.

5. Open-mindedness

Many participants mentioned the benefits of ICTs including being more open-minded.

For example, Songpob, a male student from a private university in Bangkok mentioned that:

Songpob: For me, I have so many foreign friends and normally, we communicate using "Blacberry Chat". It really helps improve my reading skills. For example, I gain new vocabulary and I also learn more about word meanings. I mean, one word might have five different meanings depending on the context you use. I also learn more about other cultures such as the Do's and Don'ts in Japan. In addition to using my Blackberry to chat with my foreign customers, I also use skype. When I don't understand what they say, I just look the word up in the online
dictionary from my ipad. For me, It's integrated learning. You can practice reading, writing, speaking and listening at the same time.

Praw a female student from a public university from Bangkok also noted that:

Praw: If you want to post something online, you need to be open-minded. You need to accept other people's ideas. For example, I'm not a Justin Bieber's fan but if you log on to youtube, you will see that there are so many Justin Bieber's followers. After reading the comments, you will see that what you believe is not really important. You need to listen to others, you need to be open-minded.

In conclusion, the participants perceived ICTs as a positive tool for the benefit of their English learning, especially in the area of reading, and vocabulary building.

**Question Four: Problems in Using ICTs**

**Quantitative Results**

The surveyed respondents' answers regarding their perception of problems in using ICTs in learning English reading consisted of both technological and non-technological aspects. Those responses were categorized into four major groups as follows:
Table 10

*Problems of ICTs*

<table>
<thead>
<tr>
<th></th>
<th># Accounts</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Internet access</td>
<td>80</td>
<td>33.3</td>
</tr>
<tr>
<td>2. Inaccuracy of information</td>
<td>51</td>
<td>21.2</td>
</tr>
<tr>
<td>3. Eye fatigue</td>
<td>33</td>
<td>13.8</td>
</tr>
<tr>
<td>4. Take learning for granted</td>
<td>31</td>
<td>13</td>
</tr>
<tr>
<td>5. No Problem</td>
<td>16</td>
<td>6.6</td>
</tr>
<tr>
<td>No answer</td>
<td>29</td>
<td>12.1</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
<td>100</td>
</tr>
</tbody>
</table>

(1) **Internet access**

The biggest concern reported by the respondents was the Internet access including inadequate access and insufficient resources (80 accounts). Many surveyed respondents mentioned that there is still a disparity between big cities and rural areas in Thailand. They stated that students who lived in the cities were more advantageous than those students who lived in small and remote towns. The high speed Internet was pricey and therefore, it was not possible for poor students to afford. Even if those students lived in the big cities, they needed to pay a lot in order to gain Internet access. Many students stated "not accessible to all groups of people." Other mentioned "expensive, not affordable". One student stated "ICTs create disparities between the rich and the poor." These responses reflect Thailand's infrastructure, insufficient fund and imperfect network management.
(2) Inaccuracy of Information

The second highest problem related to ICT use was the inaccuracy of information (51 accounts). Twenty one percent of the students mentioned they needed to evaluate and think first whether the information was correct or not. They mentioned that sometimes the translation program such as Google translate did not work properly. Therefore, they could not solely rely on the technology but themselves. A few students stated that the technology alone did not work. They needed to consult both their instructors and the ICTs. These responses reflect their lack of confidence toward the use of technology. Other students also reported that they could not 100% trust the authenticity of the news or articles they read from the Internet. Therefore, they mentioned "I need evaluation skills when reading online texts."

(3) Eye Fatigue

Another barrier noted by the surveyed respondents was the eye fatigue (33 accounts). Some of them simply stated "Eye fatigue". Some mentioned "I got eyestrain every time I use technology."

Qualitative Results

Overall, all 12 participants mentioned that they had positive attitudes toward the use of ICTs in English language learning. However, they stated that ICTs somehow had some issues for EFL learners. Below are their challenges in learning English in relation to ICT use.
1. Internet Access (big cities vs. rural area)

The participants discussed the Internet access between urban cities and rural areas. Internet access includes access to computers, the Internet, and computer labs, fast and slow Internet service. The students’ comments are as follows:

Atichart: At first, I said that ICT use is an equalizer. At the same time, ICTs expand the gap between the rich and the poor. People who live in rural areas might not have access to the Internet and therefore, they might not be knowledgeable. Without enough knowledge, they cannot help improve their own quality of life. Consequently, they might be taken advantage of by other people who are aware of their weaknesses.

In addition to the Internet access, Patcha, a female student from a public university suggested an interesting issue as follows:

Patcha: I want to say that government's instability plays a key role. Many people mentioned ICT problems such as Internet access and Internet failure. However, I think they forgot to talk about our human resources. Are our English teachers good enough? Do they have sufficient knowledge about ICTs? I want to say both teachers and students are not ready to use new technology and therefore, they might use ICTs in the wrong way. I agree that there are some professionals but I don't think that there are enough for the whole country. Also, how about the government? Do they have sustainable or tangible plans in terms of ICT management? I don't see any.
2. Less Face-to-face Interaction

With respect to interaction, the participants drew attention to students’ lack of face-to-face interaction as a result of the technology use. Mintra, a female student from a public university outside Bangkok gave an example of this by saying:

Mintra: Because of ICTs, people lack face-to-face interaction. Instead of talking to your friends or asking your teachers, you simply log on to Google and search for answers yourself. No more talk, no more people skills.

In line with Mintra, Atichart stated that:

Atichart: People are alone because of the technology. They don't talk, they don't discuss, like years before. ICTs make our society become materialistic. We are much more selfish. Some people use technology to make profit, in a bad way.

The examples reveal that ICT tools might create a divide among learners. That is, the Internet might be able to promote superficial communication, substitute social interaction, and lead to inaccurate learning.

3. Health Issues

The majority of the participants also discussed the effect of internet use and eye fatigue. One participant expressed his negative attitude toward technology in terms of eye health as follows:

Wasu: If you always look at the computer screen, your eyes will get worse. I had eyestrain every time I spend too much time on the Internet. Besides having eye fatigue, your personality is not good. I mean, you don't have a personality if you use your own cell phone all the time. I mean, you will look stupid if you use it all the
time. You don't look at the world around you, you just gaze at your smart phone screen.

In line with Wasu, Ladda, another female student from a private university in Bangkok added that reading online texts makes her eye fatigued:

Ladda: Do you know what the office syndrome is? I have that kind of syndrome. My muscles ache and my eyes are tired. I know because I use the Internet too much.

These two examples show that ICT tools can contribute to some health issues such as eyestrain and muscle aches.

4. Internet Dependency

In this category, the participants discussed their personal reason for their negative attitudes towards using the internet for EFL learning. Atichart, for example, mentioned that students became more dependent on the Internet and thought of the Internet as the only source of information. Here are his comments:

Atichart: I think nowadays, we depend on technology too much. We don't trust ourselves. We let technology control our lives, voluntarily. Therefore, you don't have thorough information of anything because you depend too much on the computer. You don't practice using your heads.

Another student, Rungrtiwa, supported Atichart’s comments by saying that:
Rungtiwa: Nowadays, technology helps make our lives easier and more comfortable. Therefore, we are addicted to it. We take learning for granted, we don't see the value of reading, listening or thinking. Because we get information so easily, no sweat.

The above examples reveal another important aspect regarding ICT tools. Through the use of the Internet, students have access to limitless information. Since the students are addicted to a convenient way of learning, essential cognitive functions such as decision making and meaningful learning might not be developed.
CHAPTER 5
DISCUSSION

Based on the findings discussed earlier, this section presents remaining challenges that need to be solved by researchers and educators, and then provides pedagogical and empirical implications. The discussion will be divided into themes as follows:

1. Definition of literacy

The findings of this study supported Miller & Borowicz (2006) that in the technology-based learning society, the notion of literacy has dramatically shifted from the conventional sense of reading and writing only print texts to an expanded sense of reading and writing multiple forms of non-print texts. The participants of this study gained information using various multimodal layers in learning. The use of different text formats and media forms allows these students with the opportunity to understand and relate to the increasing complexity of different modes of meaning (New London Group, 1996).

The findings of this study confirmed that the definition of literacies has been expanded to include the ability to think critically and analytically, access information quickly, evaluate it appropriately, and use it effectively. In addition, the findings suggested that the concept of literacy is expanded to include acquisition of the English and ICT skills as a stepping stone to being literate. The majority of the interviewed participants mentioned that both English and ICTs are now viewed as the method of communication and knowledge acquisition, which allows them to effectively participate in the global community (Warschauer, 2002).

A number of researchers have proposed that technology offers a global data base of authentic materials that can enhance language learning and teaching (Son, 2007). As shown in the students’ responses, the participants had a positive attitude toward ICTs in language
learning. They viewed ICTs as tools to practice language skills and technology is helpful for their own language development. The participants of this current study enjoyed searching limitless information, reading authentic texts and using multiple modes of learning to help them read faster and better.

The findings supported Hussain et al. (2010)'s comments that frequent internet and technology use helped ESL/EFL students with their oral English, improved their English reading comprehension, enlarged their English vocabulary, and enhanced their listening and speaking. Also, most of the surveyed participants found ICTs to be valuable in terms of the convenience of use, the various forms of information, the increasing motivation, the authentic learning experiences, the open-mindedness, and the education equalizer.

The rapidly increasing importance of ICTs in English language learning, therefore, encourages teachers to assess their teaching skills so as to fit in with the challenges caused by technological revolution. The findings supported Warschauer's (2001) statement that English teachers should be able to use multiple texts and media forms to participate in learning communities. Also, the findings suggested that new forms of reading, writing, and interpersonal communication via digital technologies are required for English classes.

That is, teachers should be ready to teach English with a goal of preparing their students to become effective workforce. Hu (2002) claimed that without qualified teachers, no matter how good the curriculums, syllabuses, textbooks and tests are, the development of ELT will be handicapped and the quality compromised (p. 45).

2. ICT integration

The findings of this study demonstrated that ICTs have enormous potential to improve learners' achievement by offering fast and easy-to-use information, increasing motivation,
being equalizer, promoting authentic learning, fostering learner autonomy, and promoting cultural understanding, not to mention reading strategies such as summarizing, locating main idea and reading comprehension (Jurich 2001). The results reported here also highlighted the benefits of ICTs toward English reading especially in terms of summarizing, locating main idea and reading comprehension. As Kern (2006) mentioned that success largely depends on teachers' efforts in providing meaning learning activities, and helping students to reflect critically on language, and context. Consequently, without an emergent pedagogy, deliberate goals to introduce ICTs into the curriculum cannot be achieved (Law & Plomp, 2003).

3. Digital divide

The data found revealed a multifaceted nature of the digital divide. Lack of access or limited access to the Internet was some of the major challenges often reported by the participants in this study. The real problem, however, might come from the country's incomplete infrastructure or it might reside in the students' incompetence in ICT skills. The results showed that the surveyed participants rated themselves as unskilled except Word and PowerPoint.

The students who spend little time using ICTs in their learning English might be because the lack or the limited access to the Internet. In addition, insufficient technical assistance might further discourage the students' interest to use ICTs in learning. Therefore, educators and teachers should be aware of this challenge not only for connectivity or physical accessibility to technology but also for the possible second-level divide (Dickard & Schneider 2005). The second level divide refers to the degree to which students are willing to adopt new technology. Dickard & Schneider noted that the challenge is transformation, not technology, since the ultimate education goal is to make sure that all students have has access to the available resources. The study suggested that teachers should reconsider the traditional
concept of the digital divide and come up with a new definition that reflects "shifting the
digital divide paradigm".

The multiliteracies pedagogy is formed based on the idea as not to leave any students
behind (New London group, 2000). However, there is evidence found that English language
education have continually failed to include minority and low socio-economic status students,
and therefore create the pattern of social inequity (Mills, 2007). The findings reported here
indicated that ICTs have not yet ensured that all learners had access to ICT tools. The
findings also supported digital divide theory that not all learners had access to all literacies.
Instead, literacies are accessible mainly to the dominate groups and social classes.

As the participants of this study mentioned, students in rural areas might be affected
by the lack of access to the Internet (lack of resource, lack of complete infrastructure). The
results support what Cope & Kalantzis (2004) mentioned about a difference between
linguistic and experience of those of the rural area schools and those in big cities. Therefore,
there is a need to evaluate the potential of the multiliteracies pedagogy to provide equitable
access to powerful literacies for a wide representation of social classes (Mills, 2007) As Mills
mentioned, this only can be achieved by classroom based research, the beginnings of which
are reported here.

4. Human factors

As the participants of this study mentioned, there are many challenges of ICT use
such as lack of infrastructure in rural areas, lack of up-to-date hardware and software, and
unfamiliarity with technology. One important issue is that we might forget the role of human
factor that influences the use of ICTs while paying too much for equipment (Warschauer,
2003). Mostly, researchers and teachers focus too much on external factors such as lack of
equipment, unreliability of technology and lack of resources. However, we should reconsider
human-related factors such as teachers, students and staff member when discussing challenges in ICT use in education.

Since the surveyed participants rated themselves as unskilled ICT users and the results showed that they preferred taking courses that used no ICTs, they rated their instructors' ICT use favorably. Therefore, teachers and schools should provide sustainable support because the activities focus on basic skill training and software applications without thoroughly examining what staff and students can do with and through technology, how they perceive the use of technology and how they understand the effect of technology on the learning process (law & Plomp, 2003). Jung (2006) noted that it might be resulted by the small amount of funding given to training programs compared to paying for hardware and software, which makes it difficult to supply staff and students with uninterrupted support, and ongoing evaluation. (Jung 2006).

The participants mentioned they wanted their school to provide ICT training and continuous support so that they can efficiently use ICTs in their learning. However, they further mentioned that they needed continuous support relating to how to use new technology in learning English in an interactive and supportive learning environment, not one time training focusing on basic skills and software application.

5. Teacher role

The findings are in line with what Jung (2006) suggested about the role of teachers and schools in integrating ICTs into their class. The participants mentioned that they needed more training on ICTs. Therefore, the researcher encourages school to provide continuous trainings to both teachers and students so that they can expand their existing knowledge on ICTs.
The findings of this study revealed that students were not confident in all activities except Word Processor, PowerPoint Presentation, Spreadsheet, and Securing their electronic devices. Therefore, teachers should build on the students' existing knowledge and help them to be more confident. Later, they might have a more sense of belonging at school. This supports the comments of Brostrom (2002) who highlighted the importance of students feeling suitable for school. Brostrom also argued that "feeling suitable for school" is one significant factor to the students' achievement.

This study supported the New London Group's (1996) conclusions that technology can be used as a tool to teach language and culture. It provides an extensive range of authentic materials as well as a more learner-centered medium of instruction, which can foster classroom-based activities. The findings also illustrated how EFL MBA students use ICTs for multiple purposes.

6. Health issue

Although there were favorable reports on the technology, there were some complaints in regard to the nature of ICTs. As the online or hypertexts are non-linear and equipped with visual, audio, and texts, the participants considered reading long articles from the Internet as unhealthy. In fact, one of the interviewed participants mentioned she had office syndrome due to a continuous use of the computer.

In addition to being frustrated and discouraged when reading hypertexts, the students mentioned that they developed eyestrain when reading hypertexts on computer screens. This answered Tseng’s (2010) question whether the students do not read because hypertexts caused eyestrain or they do not read because they just do not like it. To be more specific, the findings suggested that the participants wanted to read in general, but they did not like reading online because of eyestrain.
IMPLICATIONS

The research findings have important implications both pedagogically and empirically.

First, even though the participants were neutral about their teachers’ ICT skills, English teachers should be trained continuously in order to be ready for this technology-based teaching era. Within this new paradigm, English teachers need to work with administrators, policy makers and students themselves. Such a partnership will be designed to encourage the use of ICTs in the classroom.

Second, the findings from both quantitative and qualitative analyses revealed that the participants valued the use of ICTs in English reading. In addition, findings from the quantitative analysis demonstrated that the majority of the participants viewed themselves as unskilled in most activities except Word Processing, Presentation software, Spreadsheets and Securing their electronic devices. Therefore, this means that schools and universities have a responsibility to introduce Multiliteracies than has been recognized. It is time for teachers, administrators to start integrating ICTs in English classroom. Classroom teachers who are not familiar with ICT tools might have trouble providing instruction. Thus, continuous training and technical support in the area of ICTs should be offered for these teachers.

Third, the results demonstrated that lack of access or limited access to the Internet was some of the major challenges often reported by the participants. Therefore, teachers and schools should be aware of this challenge. There is a need for schools to evaluate their ICT resources including human-related factors (teachers, students, and staff members) and external factors (lack of equipment, unreliability of technology, and lack of resources).

Fourth, since the participants of this study consisted of Thai EFL graduate students in the MBA programs studying in Thai contexts, their attitudes may not be able to represent all the Thai EFL students. Therefore, there is a need for future research to find out further
information related to Thai students to better understand their perceptions toward the use of ICTs in English classrooms. In addition, other internal factors such as belief in ICT use, motivation to use ICTs, and external factors such as access to the Internet, ICT training and etc. should be taken into consideration.

Fifth, the combination of quantitative and qualitative research method within this current study provided ample room for comparison between benefits and problems of ICT use and allowed for a closer investigation of how student viewed ICT in English language learning when reading in English. Mixed-methods research is capable of clarifying both the breadth and depth picture of what is happening within a set of research data. In this present study, the two approaches working together provided a more comprehensive understanding of the findings than either one of the approaches alone could offer.

Sixth, the present study explored the use of ICTs as well as benefits and problems of ICT in English reading. Therefore, it would be interesting to conduct further study by exploring impacts of ICT in other areas such as writing, listening, and speaking. In addition, comparative studies on impacts of ICT in English reading exploring the different characteristics of students (Non-English major vs. English major) within the same study.

Seventh, classroom teachers can start using the self-rated questionnaires in association with think aloud, retrospective interview to have a combined inventory of students ICT use. Also, these processes could also be administered longitudinally, before, during and after the school starts to determine the effects of the ICT in English language learning. Knowledge of students’ perception toward ICTs and their development of ICT skills can help teachers make more effective use in assisting students’ learning.

Limitations of the Study
Even though there were 240 MBA students participated in the quantitative study, further studies with a larger number of interviewed participants are needed in order to gain a better conclusion. There should also be more research exploring the relationship between factors in ICT use and reading comprehension achievement. Further studies can build on the findings of this study to discover practical applications in teaching and learning a second and foreign language reading using ICTs.

In addition, although the interview is a widely used method to gain information, sometimes the students do not report everything. In addition to using interview like this study did, further research should triangulate the data with other supporting data such as student’s diaries and students’ exercises.
CHAPTER 6
CONCLUSION

For the past years, schools have placed an emphasis on the use of technologies in English language teaching to help improve the learning of English among ESL/EFL students worldwide. It was also anticipated that ICTs implementation would also enhance higher-order and critical thinking skills for students in English classrooms. Results from this study are helpful for universities since they provided their perceived ICT skills, ICT preference, perceptions and problems of Thai EFL MBA students regarding the use of ICTs in and out of the classrooms. Since the participants mentioned both benefits and challenges of ICT use, the findings would be of assistance to both teachers and students. They could identify the problems related to ICT use and they further could take appropriate action to overcome the problems so that the ICTs could be used effectively by teachers and students. Lastly, it is hoped that teachers will use the recommendations and adapt them to fit in with their classes. This process can put emphasis on students existing strengths, preferred communication modalities as a pathway to subsequent literacy learning.
References


Borsheim, C., Merritt, K., & Reed, D. (2008). Beyond technology for technology’s sake:


Heinle & Heinle.


แบบสอบถามบทบาทของเทคโนโลยีที่มีต่อการเรียนการอ่านภาษาอังกฤษ

ส่วนที่ 1: ข้อมูลส่วนตัว
1. เพศ □ ชาย □ หญิง
2. อายุ ______ ปี
3. มหาวิทยาลัย __________________________

ส่วนที่ 2: ความเห็นของนักศึกษาเกี่ยวกับการใช้เทคโนโลยีและอุปกรณ์ต่างๆ
ความสามารถในการใช้เทคโนโลยีของท่านอยู่ในระดับใด กรุณาวางกรอบหรือบอกบวกตัวเลขที่ตรงกับความสามารถของท่าน

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<td>2. Spreadsheets (Excel, etc.)</td>
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<td>3. Presentation software (PowerPoint, etc.)</td>
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<td>4. Graphics (Photoshop, Flash, etc.)</td>
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<td>5. Creating and editing video/audio (Premiere, Widows Movie Makers etc)</td>
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<td>6. Creating Web pages (Dreamweaver, FrontPage, etc.)</td>
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<td>7. Creating and maintaining blogs</td>
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<td>8. Online library resources</td>
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<td>9. Computer operating systems (Windows, OSX, etc.)</td>
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<td>10. Computer maintenance</td>
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<td>11. Securing your electronic device (firewalls, antivirus software, etc)</td>
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### 3: Using Technology for Reading and Language Learning

Thailand and/or or not in which it scale is generally high or high enough.

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<th>Strongly Disagree</th>
<th>Disagree</th>
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<td>I like studying English with technology only.</td>
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<td>Overall, the teacher uses technology well in teaching English.</td>
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<td>The teacher uses technology to improve my understanding of English.</td>
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<td>The teacher should provide technology training in English courses.</td>
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<td>Technology helps me understand the author’s purpose better.</td>
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<td>Technology helps me summarize the contents I read.</td>
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<td>Technology helps me check understanding of the parts, such as...</td>
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<td>5. Overall, the teacher uses technology well in teaching English.</td>
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<td>9. Technology helps me understand complex or abstract concepts.</td>
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<td>10. Technology helps me understand the author’s purpose better.</td>
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<td>5</td>
</tr>
<tr>
<td>14. Technology helps me understand the author’s purpose better.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. Technology helps me summarize the contents I read.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
ส่วนที่ 4: ข้อดีและข้อเสียของเทคโนโลยีที่มีต่อการเรียนการอ่านภาษาอังกฤษ

กรุณาเขียนความเห็นของท่านด้านล่าง

1. ประโยชน์ของการใช้เทคโนโลยีในการเรียนการอ่านภาษาอังกฤษ

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2. ข้อจำกัดหรือข้อเสียของการใช้เทคโนโลยีในการเรียนการอ่านภาษาอังกฤษ

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ขอขอบคุณนักศึกษาทุกท่านที่สละเวลาตอบแบบสอบถาม