CHAPTER II

REVIEW OF RELATED LITERATURE AND RESEARCH

The study aimed to investigate students' English reading anxiety and CALL anxiety in blended learning. This chapter reviews the literature and research related to computer-assisted language learning (CALL), blended learning, online reading, reading anxiety, foreign language reading anxiety, and computer anxiety. Also, some related literature and research are reviewed to obtain sufficient background information for the study.

Computer-Assisted Language Learning (CALL)

Nowadays, the use of technology and the Internet is rapidly increasing in teaching language environments (Chen, Belkada and Okamoto, 2004; Eskenazi, 1999; Nelson and Oliver, 1999; O' Dowd, 2003; Pennington, 1999; Toyoda and Harrison, 2002; Warner, 2004 as cited in Chen, 2008). Students today have grown up on computers and are familiar with using the Internet, and teachers are increasingly aware of integrating technology into the instruction for meaningful learning (Koehler, et al., 2004). Educators recognize that the computer technology and language learning programs may enhance language acquisition from both independent and collaborative learning environments, and language experiences. (Kung, 2002 as cited in Wang, 2008).

CALL is an instructional method which provides video, sound, graphics, and texts, which allow students to be exposed to the target language and the culture and also facilitates comprehension in listening and reading (Chun and Plass, 1997 as cited in Chen, 2008). Warschauer (1996) pointed out that the development of CALL over the last 30 years can be recognized in three phases: behavioristic CALL, communicative CALL, and integrative CALL.

Behavioristic CALL is the first phase of CALL which was based on the behaviorist theories of learning. It was conceived in the 1950s and was implemented in the 1960s and 1970s. Programs of this phase entail repetitive language drills and can

be referred to as "drill and practice". Drill and practice courseware is based on the model of computer as tutor (Talor, 1980 as cited in Warschauer, 1996). In other words the computer serves as a vehicle for delivering instructional materials to the students. After rejecting the behavioristic approaches to language learning at both the theoretical and pedagogical levels and the introduction of the microcomputer in the early 1980s, the behavioristic CALL was weakened.

The second phase of CALL, the communicative CALL, was based on the communicative approach to teaching which became prominent in the 1970s and 1980s. Vance Stevens (1989 as cited in Warschuer, 1996) argued that all CALL courseware and activities should be built on intrinsic motivation and should foster interactivity – both learner-computer and learner-learner. Several types of CALL program were developed and used during this phase. Taylor and Perez (1989 as cited in Warschuer, 1996) proposed the computer as tutor model in which the process of finding the right answer involves a fair amount of student choice, control, and interaction. In addition, they proposed another CALL model which involves the computer as stimulus. For this model, it stimulates students' discussion, writing, or critical thinking. The third model involves the computer as a tool (Brierley and Kamble, 1991; Taylor, 1980 as cited in Warschuer, 1996) or, as sometimes called, the computer as workhorse (Taylor and Perez, 1989 as cited in Warschuer, 1996). This CALL model empowers the student to use or understand language.

For the last phase of CALL, integrative CALL, a number of educators were seeking ways to teach in a more integrative manner by developing models which could help integrate the various aspects of the language learning process; for example, using task- or project-based approaches to integrate students in authentic environments, and also to integrate the various skills of language learning and use. Integrative CALL was based on two important technological developments in the mid- 1990s, the dramatic increase in commercial multimedia for language learning as CD-ROMs became standard in home computers and the development of the World Wide Web. People can share the information resources and communicate with one other no matter when and where they are on the network, and also there are mainly free English resources for the online English language learning (Warschuer, 2000 as cited in Wang, 2008).

Ushida (2005) mentioned that various CALL activities attempted to create technology-enhanced language learning (TELL) environments. The study of Adair-Hauck, Willingham-McLain and Youngs (1999 as cited in Ushida, 2005) showed that students could enjoy the TELL learning environment because of the relaxing atmosphere without the pressure of a classroom and peers.

The CALL programs are popular in foreign language learning today because of its benefits to the students to enhance their language proficiency. Wang (2008) promoted the benefits of CALL in five categories. First, CALL programs could offer second language learners more independence from classroom. Computers will never get tired and can repeat the same thing again and again without complaining. Moreover, computers can keep teaching resources for a longer time and also can be shared by other teachers and students around the globe. Second, language learners have the option to study at anytime and anywhere. Traditionally, students go to class at a fixed time and fixed classroom. On network, students can learn and use the same materials wherever they are. Third, CALL programs can be wonderful stimuli for second language learning. Both teachers and students can take advantages from various communicative and interactive activities provided on network in the forms of fun games and communicative activities. Activities on the web reduce the learning stresses and anxieties so that this may promote second language learners learning motivation. Fourth, computer can promote learning interaction between students and teachers. Some activities on the Internet such as sending E-mail and joining newsgroups may promote students to communicate and share their personal view, thought, and experience with people they never met before and interact with their own teachers and classmates without or less shy. Finally, computers can help classroom teaching with a variety of materials and approaches. With computers, teachers can present pictures, videos and written texts with or without sound to the class. Students do not get bored easily and they may become more active. At the same time, students can also share their findings and information with teachers and classmates.

Moreover, Marzban (2011) mentioned that CALL provided the technical and logistic support for the fulfillment of theoretical tenets of communicative approach which emphasized a more humanistic and individualistic learning and which

accounted for different cognitive, affective, biological, and socio-cultural variables among the students.

So far, most discussions on the use of e-learning in higher education have focused on ways for the teacher to incorporate the new technology into their teaching. Discussions or even knowledge about e-learning from the students' perspective seem to be very sparse (Keller and Cernerud, 2002). However, there are reports of students overwhelmingly preferring to take class using e-learning than a traditional course. They felt that e-learning was a helpful tool in their learning (Brotherton and Abowd, 2002). According to Keller and Cernerud (2002), students' perceptions of e-learning in university education may be influenced by specific individual variables. In addition to the variables age and gender, there are at least three characteristics: previous experience of computers, technology acceptance, and individual learning style.

Utilizing an e-learning course is advantageous to the students in learning process. According to Brown (2001), one of the greatest advantages is also a major area of concern. The students also have control over every aspect of the learning situation from the time spent on task, practice time, and study time. A benefit of the students having so much control over their learning experience is that advanced students can proceed without becoming bored with repetitive instruction and can progress through the material without having to wait on other students who may not be grasping the materials as well. By the same token, Kruse (2006 as cited in Borstorff and Lowe, 2007) proposes that students who are having difficulty with the material can slow down to the pace suitable to them which allows them opportunity to fully understand the content and not get frustrated with themselves.

Students in one research study indicated their satisfaction in the ability for web-based instruction to achieve their progress throughout a course (Helmi, Haynes and Maun, 2000 as cited in Borstorff and Lowe, 2007). Dedicated students are also able to extend their learning beyond the requirements of a course when they tap into the wealth of online resources (Berger and Topol, 2001).

The Internet provides an easy access to four skills, which are necessary for language learning. It is known that English language is the most commonly used language in the world and nobody can argue with the importance of foreign languages, especially English. Therefore, it is vital to learn English and it becomes easier when

using the Internet as a tool for learning in the virtual learning environment. For this research, the reading skill was studied on the use of CALL by integrating the e-learning to the reading course.

Blended Learning

As a large number of studies mention the benefits of CALL, the learning process in the study involve both traditional face-to-face interaction using a printed material and e-learning as a supplement to the course. Blended learning is the thoughtful integration of classroom face-to-face learning experiences with online learning experiences – not a layering of one on top of the other. From this perspective, the Internet has been considered to be a disruptive technology that requires a careful consideration of the educational goals, structures, and process (Archer, Garrison and Anderson, 1999 as cited in Garrison and Kanuka, 2004).

So and Brush (2008 as cited in Akyüz and Samsa, 2009). Wu, Tennyson and Hsia (2010)) argued that blended learning means any combination of learning delivery methods, mostly including face-to-face instruction with asynchronous and/or synchronous computer technologies said that blended learning was described as a learning approach that combined different delivery methods and styles of learning. The blend could be between any form of instructional technology (e.g., videotape, CD-ROM, CAI, web-based learning) with classroom teaching.

Phipps and Merisotis (1999 as cited in Akyüz and Samsa, 2009) proposed that blended learning be referred as the third generation of distance education systems. The first generation was correspondence education which utilized a one-way instructional delivery method, including mail, radio, and television. The second generation was distance education with single technology; for example, computer-based or web-based learning. The third generation is blended learning, characterized as maximizing the best advantages of face-to-face learning and multiple technologies to deliver learning.

Deghaidy and Nouby (2008) mentioned the course design perspective on Rovai and Jordan's study that a blended course can lie anywhere between the continuum anchored at opposite ends by fully face-to-face and fully online learning environments. Also Deghaidy and Nouby (2008) were cited in Kerres and De Witt

(2003) whom offered a 3C-conceptual framework for blended learning designers which involves the 'content' of learning materials, the 'communication' between students and tutors and between students and their peers, and the 'construction' of the students' sense of place and direction within the activities that denote the learning landscape.

From a teacher's perspective, Deghaidy and Nouby (2008) said that a blended e-learning approach required new pedagogical skills in order that the students gain the most from the presented course. Educators suggested that in the face-to-face environment, students having more control over their learning, increases social competencies, improves student morale and overall satisfaction, enhances information skills acquisition and student achievement, respects differences in learning style and pace, and fosters communication and closeness among students and tutors (Martyn, 2003; Hooper, 1992; Saunders and Klemming, 2003; AzTEA, 2005; Byers, 2001; Kendall, 2001; Piskurich, 2004; Joliffe, Ritter and Stevens, 2001 as cited in Deghaidy and Nouby, 2008).

Blended learning is an effective and low-risk strategy which positions universities for the onslaught of technological developments that will be forthcoming in the next few years. Moreover, Internet information and communication tools provide flexibility of time and place and the reality of unbounded educational discourse. These reasons show how the best utilize both face-to-face and online learning for purposes of higher education (Garrison and Kanuka, 2004).

Beyond, Sharma and Barrett (2007) indicated that the crucial element in blended learning is an appropriate balance of face-to-face teaching and technology use. Neither the computer nor the World Wide Web is meant to replace instructors; both are supplements to instructor-developed lesson plans, but technology can provide a myriad of benefits, including the development of independent learners, a source of instant feedback, and motivation to learners.

Online Reading

The Internet is used as an important tool not only for teachers but also for students for all grade levels as a guide for teaching and learning. Considering the objectives of courses and levels of students, the Internet is mostly used in the

university environment as the tool to learn foreign language (Hackbarth, 1997 as cited in Tanyeli, 2009).

In the field of education, language learning and teaching can easily be assisted by the Internet since there are many highly developed web sites which offer speaking, reading, listening, and writing activities. On the Internet, reading involves more than readers' interpretations of text and of the writer's stance in a paper reading environment; when a third factor, Internet technology, is involved, reading also becomes a selective process that requires special skills to scrutinize the Internet's abundant visual and non-textual features (Coiro, 2005; Schmar-Dobler, 2003 as cited in Huang, Chern and Lin, 2009).

Although the research on the attitudes towards the Internet is innumerable, the studies on students' attitudes towards the integration of ICT-based reading in foreign language curricula are few (Sagin Simsek, 2008). One of the studies by Yessis (cited in Sawaki, 2001) showed that although the computer practice group read more slowly than the paper practice group, the computer practice group accomplished significantly better focusing more on the content of the texts. The approach to tasks and lesson designs of online reading should follow the same guidelines suggested in the literature on reading methodology. Invariable with the previous research, it was proposed that the use of the Internet in learning required some technological skills and knowledge from both teacher and student (Warshauer, 1997; Brandl, 2002 as cited in Sagin Simsek, 2008).

Singhal (1999 as cited in Huang, Chern and Lin, 2009) investigated hypertext reading strategies among university students in a Web-based reading class and sought to ascertain the usefulness of such Web-based programs. The study found that after Web-based reading instruction, students' reading comprehension improved and their use of reading strategies also increased. Some studies in the area of web assisted instruction and reading have also found an increase in student motivation and confidence. Students believe in the effectiveness of online reading activities and that they enjoyed participating in the online activities (Adler-Kassner and Reynolds, 1996 as cited in Tanyeli, 2009).

Reading Anxiety

At present, the database of research concerning anxiety and foreign/ second language reading is not complete, and therefore no generalizations specific to reading can be formulated. Sellars (2000 as cited in Horwits, 2001; Brantmeier, 2005) mentioned in a study on reading anxiety that reading anxiety is a distinct variable in foreign language learning. Students with higher levels of overall foreign language learning anxiety reported higher levels of reading anxiety. In a close look at anxiety ratings, findings showed that more students indicated feeling "somewhat" anxious about second language reading than any other rating. Sellars also found a negative relationship between reading anxiety and second language reading comprehension when students read a magazine article.

Young (2000 as cited in Brantmeier, 2005) examined several interacting variables including anxiety, comprehension, self-reported comprehension, text features, and reading ability with four different non-literary reading passages such as magazines, newspaper, etc. The finding reported a significant relationship between second language reading anxiety and second language comprehension with two of four passages utilized in the study.

Brantmeier (2005) also studied about second language reading with advanced language learners; the result revealed that at the advanced level of language instruction learners generally do not feel anxious about reading in a second language. Learners are more anxious about post-second language reading tasks (both oral and reading) than the act of reading itself. Students feel less anxious about reading when immediate communication apprehension is not a concern.

Foreign Language Reading Anxiety

During language learning, anxiety is known as a factor which affects students at every stage of learning, whether during input, processing, or output (MacIntyre and Gardner, 1989). Anxiety is distinguished into several categories; trait anxiety and state anxiety are typically distinguished. Trait anxiety is a characteristic of a student's personality; in contrast, the state anxiety is experienced in response to a specific event (Spielberger, 1983 as cited in Horwitz, 2001). MacIntyre and Gardner defined language anxiety as "the feeling of tension and apprehension specifically associated

with second language contexts, including speaking, listening, and learning" (1994, p. 284)

Over three decades ago, there were studies which found the different relationship between anxiety and second language achievement, then Scovel has investigated and concluded that language researchers should be specific with the type of anxiety they are measuring (Scovel, 1978 as cited in Horwitz, 2001, p.113). Horwitz, Horwitz and Cope (1986) moved further by proposing a situation-specific anxiety construct, Foreign Language Anxiety, which they described it as "a distinct complex of self-perceptions, belief, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process".

When the native language is not English, students usually have fears and worries about not succeeding to learn. However, it is the students themselves who motivates themselves with the help of their institution and lectures to overcome their anxieties (Tanyeli, 2009). Reading seems to have least conscious to anxiety effects because it is done privately with unlimited opportunity for reflection and reconsideration.

The possibility of a specific anxiety in response to second language reading has important consequences for teachers' understanding of the reading process and the practice of reading instruction. Anxiety would seem to be a mediating variable that intervenes at some point between the decoding of a text and the actual processing of textual meaning (Saito, Horwitz and Garza, 1999).

Saito, Horwitz and Garza (1999) proposed two aspects of foreign language reading which would seem to have great potential for eliciting anxiety: unfamiliar scripts and writing systems and unfamiliar cultural material. With respect to unfamiliar writing systems, the reader would experience anxiety as soon as he or she attempts to decode the script because the reader would immediately experience difficulty in processing the text. Unfamiliar cultural concepts would seem to have an impact at a point in the reading process that is less immediate than that of unfamiliar scripts and writing systems. In other words, anxiety is also anticipated when a reader can decipher the words of a foreign language text, but not its sense, because of incomplete knowledge of the cultural material underlying the text.

Although reading plays a substantial role in the second language curriculum, there has been relatively little discussion of anxiety and second language reading. With the current emphasis on authentic texts, and their inherently unfamiliar cultural content, one would expect reading to be problematic for many students, such as in Vande Berg's (1993 as cited in Saito, Horwitz and Garza, 1999) study which students in an introductory French literature class found reading French difficult. After considering, she found the fact that the advanced students experienced anxiety over reading suggests that the unfamiliar cultural concepts encountered in a literature class may be responsible for anxiety reactions, given that those students were likely already comfortable with the French writing systems.

Saito, Horwitz and Garza (1999) studied the anxiety by the FLCAS and the FLRAS, the specific foreign language reading anxiety which they developed to the reading aspect. They found that reading in a foreign language is indeed anxiety provoking to some students, and it is a specific anxiety type distinguishable from general foreign language anxiety that has been linked to oral performance. Moreover, it is found that levels of reading anxiety vary by the target language and seem to be related to the specific writing systems. Besides, it increased with students' perceptions of the difficulty of reading in a foreign language. The tool that was used to assess foreign language reading anxiety was the Foreign Language Reading Anxiety Scale (FLRAS) developed by Saito, Horwitz and Garza in 1999.

In addition, there is a study on EFL reading anxiety as well. Shao (2014) investigated the causes of Chinese college students having English reading anxiety through questionnaires and interview of students in the University of Jinan, China. The researcher found five causes of the anxiety: lacking of cultural knowledge of English-speaking countries, lacking of confidence in reading English, lacking of necessary reading skills, lacking of English linguistic knowledge and lacking of interest in reading English.

Computer Anxiety

In today's society, computers have been recognized as not only a powerful technology for managing information and enhancing productivity, but also an efficient tool for education and training. As people are encouraged to interact with computers,

some face the fear and apprehension provoked by computer (Chien, 2008). Computer anxiety is a phenomenon when using a computer. Computer anxiety has been defined as the fear, apprehension and phobia felt by an individual when interact with computer or when they think about using computer (Hardman, 1993; Howard, 1986 as cited in Chua, Chen and Wong, 1999). Other terms are used interchangeably with computer anxiety such as computerphobia (Rosen, Sears and Weil, 1987) and computer apprehension (Anderson, 1996).

Scholars argued that trait anxiety is a characteristic of a student's personality; in contrast, the state anxiety is experienced in response to a specific event (Spielberger, 1983 as cited in Horwitz, 2001). Saadé and Kira (2007, 2009) defined the concept-specific anxiety as a transitory-neurotic type of anxiety. It is the range between the trait and state anxieties which is associated with a specific situation. Therefore, computer anxiety is a concept-specific anxiety because it is associated and covered a wide variety of situations in which people interact with computers (Oetting, 1983 as cited in Saadé and Kira, 2009; Gilroy and Desai, 1986 as cited in Parayitam, et al., 2010).

Since the 1970s, educators have been investigated people's negative reactions to computer technology. The studies reviewed so far mainly involved the relationship between computer anxiety and computer-related variables. Some educators studied the relationship between computer anxiety and computer experiences, other looked into relationship to age, gender, culture, attitudes, computer performance, self-efficacy, or cognitive abilities (McIlroy, et al., 2001; Tekinarslan, 2008; Mahar, Henderson and Deane, 1997; Beckers, Rikers and Schmidt, 2006; Meier and Lambert, 1991; Rosen, Sears and Weil, 1987; Beckers and Schmidt, 2001, 2003; Rosen and Weil, 1995; Henderson, et al., 1995; Raub, 1981).

Researchers examining e-learning and individual characteristics, it is found that computer anxiety played a significant role in a learning process. Individuals with high computer anxiety are likely to remain in that state of high computer anxiety in the future, and experience greater anxiety with repeated exposure to computers. They are at risk for resisting the use of computer technology and an inability to gain learning benefit over the anxiety cost of an e-learning environment (Fuller, et al., 2006 as cited in Chien, 2008). Computer anxiety can affect student acceptance of computer-based

training support tool. Also it can mediate the effect of perceived ease of use of e-learning (Wagner and Flannery, 2004; Jashapara and Tai, 2006 as cited in Chien, 2008). Saadé and Kira (2009) investigated the influence of computer anxiety on perceived ease of use and the mediated effect of computer self-efficacy on this relationship, within an e-learning context. The finding demonstrated the importance of self-efficacy as a mediator between computer anxiety and perceived ease of use of a learning management system.

Many theoretical frameworks have been used to measure in computer anxiety area. Maurer and Simonson's (1984) Computer Anxiety Index (CAIN), developed in conjunction with the Standardized Test of Computer Literacy (STCL), examines avoidance of caution with, negative attitudes toward, and disinterest in computers (Rosen, Sears and Weil, 1987). Loyd and Gressard's (1984) Computer Attitude Scale (CAS) assesses computer liking, confidence, and anxiety through a Likert attitude-measurement format (Rosen, Sears and Weil, 1987). Raub's Attitudes Toward Computers Questionnaire measures three factors: computer appreciation, usage and societal impact (Rosen, Sears and Weil, 1987). Weil, Sears and Rosen's (1988) Computer Anxiety Rating Scale (CARS) developed to measure activities and experiences with computers that might cause anxiety (Gordon, et al., 2003; Korukonda, 2007; McIlroy, Sadler and Boonjawon, 2007; Hogan, 2009). Weil and Rosen's (1988) Computer Thoughts Survey (CTS) developed to assess cognitions while using a computer or thinking about using a computer (Gordon, et al., 2003; Korukonda, 2007; Hogan, 2009). Sears, Rosen and Weil's (1988) General Attitudes Towards Computers Scale (GATC) developed to examine negative global attitudes about computers. (Gordon, et al., 2003; Korukonda, 2007; Hogan, 2009).

Gordon, et al. (2003) revealed on their study that the factor structure of the Computer Anxiety Rating Scale as suggested by Rosen and Weil (1992) was not replicated in the sample. On the basis of possible lack of validity in the sub-scale scores derived from the Computer Anxiety Rating Scale. However the factor structure of the Computer Thoughts Survey as suggested by Rosen and Weil (1992) was supported.

Morover, McIlroy, et al. (2001 as cited in Gordon, et al., 2003) found in their study that the Computer Thoughts Survey is "a slightly more effective instrument for eliciting differences in computing attitudes than the Computer Anxiety Rating Scale across the number of groups and conditions, which in turn might imply that negative computing cognitions are more resistant to change than anxiety attitudes". From the McIlroy, et al. (2001) study, there is evidence that the Computer Thought Survey scores may have more utility than the Computer Anxiety Rating Scale in indicating computerphobic attitudes and therefore maybe considered a more useful instrument in determining potential computerphobic students in future studies (Gordon, et al., 2003).

Therefore, from the above arguments, this study employed the Computer Thought Survey (CTS) which was developed by Weil and Rosen (1988) as a model to measure the computer anxiety in reading course in which e-learning is a supplementary part. For this study, participants were the same in age and culture variables, other variables were not counted as the significant factors.