Computer assisted language teaching (CALT) in Bangladesh at tertiary level

A thesis submitted as a partial requirement to fulfill the degree of Master of Arts in ELT in
East West University

Supervisor

Dr. Muhammed Shahriar Haque

Associate Professor

Department of English

East West University

Submitted by

Mahmuda Akhter

ID: 2010-2-92-003

January 2012

Acknowledgement

My foremost thanks go to the Almighty for giving me the strength and ability to complete this work. I express my sincere gratitude to my supervisor Dr. Muhammed Shahriar Haque. Without his guidance, it would not be possible for me to conduct this research. I am also thankful to the all the teachers and administrators who agreed to give me their valuable time for the interview session. The last but not the least, I want to thank my friends—Farina Haque, Jewel Ahmed, Shamsul Huda Shuvo, Nujhat Shejuty, Abu Reza Nurul Haq and Shihabul Goni for their suggestion and advice to write this dissertation.

Declaration

I, hereby, declare that this dissertation is based on my original work except the quotations and citations. The concepts taken from other sources have been cited properly. The dissertation has not been submitted previously or concurrently in any other institution.

MAHMUDA AKHTER

January 2012

Name: Mahmuda Akhter

ID: 2010-2-92-003

Department of English

East West University

This thesis has been accepted and approved for the fulfillment of the degree of Master of Arts in ELT in East West University.

Supervisor: Dr. Muhammed Shahriar Haque

Date of submission: January 2012

Rating: …………………………………

Comments:

………

………

………

………

………

………

………

………………………………………...

Abstract

We live in a world of constantly emerging new technology that challenges the field of education and presents many exciting opportunities. New technologies particularly computer and internet appear to offer possibilities for overcoming geographical and cost barriers of learning. Strategic use of new educational technology can enhance both learning and teaching (Webster and Murphy, 2008) and the introduction of computer in to foreign language instruction seems to conform to the statement. The world is heading towards a knowledge economy and a lot of money will be invested in Computer Assisted Language Learning (CALL). However, the investment will be successful if the teachers and administrators can realize the importance of it and the teachers can execute the system properly. According to Levy (2008), effective CALL requires the teachers to select the appropriate resources and tools based on learners' level and needs. So it is apparent that teachers' training is important for the successful implementation of CALL.

This study attempted to trace the existing facilities of the universities in Bangladesh. It also focused on teachers' and administrators opinion regarding CALL. The study was conducted to find out the answers of three central research questions:

1. Do the universities provide technological support required for computer assisted language program?

2. Are the teachers tech-savvy enough to use computer in language teaching?

3. What types of training will be helpful for the teachers to conduct computer assisted language courses?

113 language teachers and 17 administrators of 17 universities (15 private and 2 public) were interviewed to collect data. Vygotsky's theory of social constructivism was used to analyze the data.

From the analysis it was found that most of the universities did not have enough facilities required for CALL. Except two private universities, most of the other universities had only one multimedia projector for English department or language courses which was not always available. Two universities did not have any logistic supports for CALL. The teachers were also not very much aware of CALL and its benefits. They hardly had any knowledge of different uses of internet and other e-tools for language teaching. So they suggested different sorts of training that would be helpful for them. The administrators gave a mixed response in their interviews. While some officers expressed their interest in the successful execution of CALL the others were very sly during the interview session. One of the probable reasons could be that they were interviewed in office setting. So they did not feel comfortable to talk about the lacking of their universities.

As Vygotsky (1978) says that language learning is highly influenced by the learning community that involves not only the teachers and students but also the parents, institutions, peers and so on. Each member of a learning community can play a vital role in the language learning process. This study proves that trained teachers and assistance of the institutions is important to implement CALL at tertiary level. So it is high time for the teachers and policy makers of tertiary level to think about the execution of CALL in Bangladesh.

Table of Content

CHAPTER – I

INTRODUCTION

1.0 Introduction

English has become the global language as 80% of the internet content is in English, 70% of the emails sent around the world are written in English and 60% of the world publications are also in English (Austin, 2007). It is to be noted that at present, 66% speakers of English are non-native speakers (*ibid*.). So it can be said that English language does not belong to any specific country or nation and the importance of learning English requires no explanation. According to Rahman (1998: 26), a student of Bangladesh spends about 1600 hours learning English before getting into university where 1000 hours instructional time is enough to become proficient in a language. Unfortunately, Bangladeshi students cannot interact in English even after spending so many hours in learning English (*ibid*).

Computer has become an influential part of language teaching because of the rapid growth of technology (Gardner and Miller, 1999:1). At present, language teaching can hardly be done without the assistance of computer technology (Jones, 2001:360). Students expect computer among the available facilities of language courses and the teachers and administrators realize that computer-assisted language courses are more attractive than traditional language courses (*ibid*). Since the early 1960s, language teachers have witnessed dramatic changes in the form of language use and teaching (Kern and Warschauer, 2000:1). In Bangladesh computer assisted language teaching (CALT) is quite a familiar concept in some private universities of urban areas. But, all

the universities may not have the required infrastructures for computer assisted language learning (CALL) or even if they have their teachers may not have the knowledge and skills of using technology for language teaching. So this study was conducted to explore the existing infrastructure of Bangladeshi universities for CALL. The study also aimed to find out whether the teachers had enough knowledge to use computers for language teaching and the type of training that would help them to be more competent in using information technology.

1.1 Problem statement

Educators recognize that utilizing computer technology and CALL programs can be convenient to create both independent and collaborative learning environments (Lai and Kritsonis, 2006). With the emergence of CALL, Network Based Language Teaching (NBLT) or teaching through online has also become popular where teaching involves the use of computers connected to one another in local or global networks (Kern and Warschauer, 2000:1). This form of teaching and learning is also known as computer mediated communication (CMC) (Simpson, 2002: 414). However, successful implementation of any technology requires considerable effort by the teachers and administrators (Timucin, 2006). Jones (2001) believes that CALL cannot be regarded solely as a "self-access operation"; the process must be guided by the teachers and teachers' involvement and commitment is very crucial for the successful execution of CALL.

In Bangladesh, it seems that many universities have enough technological support but they cannot use those because of lack of expertise. But it is easier for the teachers to

teach language in a better way using computer (see Lai and Kritsonis, 2006). So it is important for the teachers to know what kind of software and logistic support is required and how they can be used to teach language. This study addresses this issue and tries to find out whether the Bangladeshi universities have enough logistic support for CALL, and whether the teachers are tech savvy enough to use the facilities. Besides, a highly potential technology might not be of any use if it is not administered properly (Zhao, 2003: 8). The effectiveness of any technology greatly depends on the teachers' ability to utilize it (Jones, 2001:361). So it is also important to know what type of teacher training is required for initiating computer assisted language courses which is another issue addressed by this study.

1.2 Purpose of the study

To implement the concept of digital Bangladesh in the education sector initiating computer assisted language courses can be the first option to think about. But, the institutions need to have enough logistic supports and other infrastructure to implement CALL (see Lai and Kritsonis, 2006). So the purpose of this study is to look at the existing technological supports for CALL provided by the private and public universities in Bangladesh. Moreover, teachers' knowledge and involvement in the process is also very crucial (Jones, 2001). The other purpose of this study is to find out whether the teachers are aware of the use of computer for language teaching and what kind of training is required for teachers to conduct computer assisted language courses.

1.3 Central Research Questions

This research attempted to find out the answers of the following research questions—

4. Do the universities provide technological support required for computer assisted language program?

5. Are the teachers tech-savvy enough to use computer in language teaching?

6. What types of training will be helpful for the teachers to conduct computer assisted language courses?

1.4 Significance of the study

Since the concept of CALL and CALT are quite new in Bangladeshi context there is hardly any study in this area. So this study can contribute to enrich the literature and theories on CALL and CALT in Bangladeshi context. Besides, if any university decides to initiate a computer assisted language course this study will inform them about the existing situation of CALL at the tertiary level. The teachers and the administrators will understand why teachers need training on using computer and what kind of training will be helpful for them.

1.5 Delimitation

This study delimits itself to the universities situated in Dhaka. 15 private universities and two public universities in Dhaka were surveyed to collect data that is one third of the total number of universities in Dhaka. Only the English language teachers were interviewed to collect data. The teachers who teach literature were excluded from this research.

1.6 Limitation

Since CALL was, till writing this dissertation, quite a new concept in Bangladesh there was hardly any study on CALL in Bangladeshi context. This study was conducted on some universities in Dhaka. The scenario of the universities outside Dhaka might be different.

1.7 Operational Definitions

1.7.1 Computer Assisted Language Learning (CALL)

Jones and Fortescue (in Gunduz 2005:197) say that in CALL setting, computer is a flexible classroom aid which can be used both by teachers and students inside or outside the classroom in a variety of ways.

1.7.2 Computer-mediated Communication (CMC)

According to Simpson (2002), CMC is any kind of human communication that is transferred through computers.

1.7.3 Computer Assisted Language Teaching (CALT)

There is no specific definition of CALT. The term has been coined to differentiate between the teaching and learning aspects. However, CALT is also used for computer assisted language testing (see Brown, 1997) but in this research it stands for computer assisted language teaching.

CHAPTER – II

LITERATURE REVIEW

2.0 Introduction

Technology has become an indispensable part of this age and people can hardly go without the assistance of modern inventions. Education in developed countries is already dominated by computer and other modern facilities and the developing countries like Bangladesh are also heading towards that. However, while leading to technology enhanced education system, Bangladesh may face several challenges like lack of necessary equipments, trained teachers and so forth. This research attempts to find out the present condition of computer assisted language teaching in Bangladesh. As a part of that endeavor, some recent and past research findings have been accumulated in this chapter to analyze different aspects of computer assisted language teaching and learning.

2.1 Definition of CALL

With the recent advent of modern technologies, Computer Assisted Language Learning (CALL) has emerged as a tempting alternative to the traditional mode of teaching (Ehsani and Knodt, 1998:54). However, there is no universal definition of CALL. Different researchers characterize it in their own way. Leffa (2009: 40) defines CALL as—

> …..a cultural artifact with resource on its own including higher connectivity and interactivity. It integrates with other components in the learning community transforming the way teachers and students work and think. From this collective perspective teaching and learning

become a unified activity, distributed not only among the community members but also on the artifacts available in the environment.

According to Timucin (2006:262) Computer assisted language learning involves the use of technology in the form of "computer and transformation process of the institutions where the changes actually take place". Computer-assisted language teaching (CALL) is the study of application on the computer in language teaching and learning (Levy, 1997) and is now used routinely in a variety of instructional situations (Fotos, 2004: 3). As a result, the teachers are increasingly required to posses CALL expertise that include both practical skills and a thorough understanding of information technology (IT) theory (*ibid*). CALL permits learners to control their pace of learning and interaction with others (*ibid*). Jones and Fortescue (in Gunduz 2005:197) say that in CALL setting, computer is a flexible classroom aid which can be used both by teachers and students inside or outside the classroom in a variety of ways. After analyzing all these definitions, it can be said that CALL is an approach to teaching and learning where computer and computer-based facilities are used to present, reinforce and assess materials to be learned and includes interactive elements.

2.2 History of CALL and CALT

Computers have been used for language teaching for more three decades (Gunduz, 2005:198). So CALL surely needs to be looked in to far more depth of its past history to understand its development. Kern and Warcshauer (2000) classifies the history of CALL in to three phases—behaviorist CALL, cognitive CALL and socio-cognitive CALL.

7

2.2.1 Behaviorist CALL

The first steps of CALL programs, consisting of grammar and vocabulary tutorials and drills, go back to America in1960s when mainframe computers were in trend (Kern and Warcshauer, 2000:8). At that time those programs were referred to as Computer Assisted Instruction (CAI) (Gunduz, 2005). According to Bangs and Cantos (2004:223), the first CALL software was developed in Stanford University and some years later in 1968, University of New York developed CALL software for German language. However, the most ambitious CALL project PLATO (Programmed Logic for Automated Teaching Operation) was launched in the University of Illinois (*ibid*). The 1970s witnessed a revolution of CALL as a result of development in research related to the use of computer for linguistic purpose (Gunduz, 2005). From 1960s to 1970s, the CALL programs were consisted of repeated drilling on the same materials, positive and negative feedback and focused on accuracy that was consistent with behaviorist approach (Kern and Warcshauer, 2000). At that time behaviorist theory was taken as the theoretical base of CALL and computers started to be considered not only as a technological aid but also as an alternative to traditional teaching.

2.2.2 Cognitive CALL

During 1980s, the behaviorist approach was rejected by the defendants of Communicative Language Teaching (CLT) and personal computers were also creating greater opportunities for personal work (Gunduz, 2005). Communicative CALL is based on cognitive approach that says that learners construct new knowledge

through exploring their surroundings utilizing their existing knowledge (Kern and Warcshauer, 2000). The computer provided tools and resources but it was up to the learners to do something in a simulated environment (*ibid*). The focus was not on what forms students learned from the computer but how they did use the forms while working on computers (Gunduz, 2005:198).

2.2.3 Socio-cognitive or integrative CALL

By 1990s cognitive approaches started to be criticized and socio-cognitive approach to CALL shifted the importance from learners' interaction with computers to learners' interaction with each other via computers (Kern and Warcshauer, 2000). Technologically there was a huge development in computer networking and as a result, internet browsing, email communication, chat rooms, presentation and so forth become more popular among the teachers and students (Bangs and Cantos, 2004:226). This approach led teachers to use more learner-centered and interactive method in authentic social context (Gunduz, 2005:199). Students learned and used various language skills in an integrative way and were enabled to use different computer tools for learning rather than visiting computer lab once a week for isolated exercise (*ibid*).

Bax (2003) does not agree the phases of Kern and Warcshaure (2000) as he finds some flaws in the classification. So he suggested renaming the phases to eradicate the confusions. He renames behaviorist CALL as restricted CALL, cognitive CALL as open CALL and integrative CALL as integrated CALL.

2.3 Importance of CALT

According to Lai and Kritsonis (2006), computer and the language program related to it can provide learners with more independence than the traditional language classes. Lee (2000) states that teachers should include computer in second language classroom since it can—

1. Motivate students better than the traditional way of teaching;
2. Enhance learners' achievement;
3. Increase authentic materials for study;
4. Encourage greater interaction among teachers, students and peers;
5. Emphasize individual need;
6. Enhance global understanding.

Lai and Kritsonis (2006) believe that computer can provide learners with many fun games and communicative activities that reduce learners stress and anxiety. Through the communicative activities, computer assisted language course can help learners improve their linguistic skills, affect their attitude towards language learning and build self-confidence as Robertson, et al. (in Lai and Kritsonis, 2000) observe that the learners of computer assisted language programs have higher self-esteem rating than the regular students.

Taylor and Gitsaki (2003) explore that in a well-designed computer assisted language program, the teachers can get essential information regarding learners' progress and provide feedback according to learners' need. Besides, students can get authentic materials either at school or home and these materials can be accessed 24 hours by

connecting to internet (Lai and Kritsonis, 2000). Shy or introvert learners will be benefited from individualized technology assisted learning and studious learners can also work at their own pace to achieve higher level (*ibid*).

According to Warschaure (1996), in late 1980s computer assisted language programs started to become popular in USA for teaching composition. The author believes that there are a number of motivations that the teachers get from computer assisted teaching including the desire to provide authentic communication partners, the recognition of the importance of cultural exchange and "the desire to teach new learning skill to the language minority students".

2.4 Face to face interaction versus Computer Mediated Communication (CMC)

CMC is an umbrella term which refers to human communication via computers (Simpson, 2002:414). After conducting a study on 16 ESL students of a community college in Hawaii, Warschauer (1996) comes up with the following findings—

1. While in face to face discussion one or two students seem to dominate the floor CMC features more balanced participation with each student sharing their ideas equally

2. Students can express themselves comfortably and creatively during electronic discussion;

3. They tend to use more formal and complex expressions in electronic discussion than they do in face to face discussion. It may help them to acquire more sophisticated communicative skill.

4. Japanese students hardly participate in face to face discussion whereas they participate more equally in online discussion. It emphasizes the significance of students' cultural background.

5. The students who lack oral fluency participate more in online discussion.

6. The online discussions have few interactional features such as questioning, confirmation check, paraphrasing and so on that are often found in face to face interaction.

Pillettieri (2000) reports that during chatting learners feel less anxiety about participation and it motivates to produce more of target language. Chatting can also develop sociolinguistic and interactive competence (*ibid*). Kern (in Pillettieri 2000) also reports that in electronic discussion, students use a wide variety of discourse structures and the variety of verb form and clause type is greater in electronic discussion than in the oral discussion. Pillettieri (2000:83) believes that network-based communication (NBC) can play a significant role in the development of grammatical competence because in this medium of communication students have more time to process and monitor the "interlanguage". He further suggests that synchronous NBC tasks should be goal-oriented and they should be designed in such a way that all participants are required to communicate each other for successful completion of the task. However, Chun and Plass (2000) emphasize on the

sociolinguistic aspects of language as they believe that by having the opportunity to communicate through a different medium, learners are challenged to process authentic information beyond their grammatical and syntactic competence.

The students engaged in synchronous communication, particularly online chat, realize that they need to think and act very quickly as they do in face to face interaction as Weininger and Shield (2001: 89) say that CMC is "constrained by temporal limitations". Schewinhorst (2002: 139) finds the repetition of messages in synchronous communication though technically it is redundant since the previous messages are available on the screen. However, the author argues that the repetition may be used to get more time for decoding the last message. Formulaic languages are also used more frequently in CMC than face to face interaction to save time while typing (Levy, 2008: 7).

To ensure effective CALT, the teachers need to maintain a balance of approaches, resources and tools to meet the needs of learners in a particular context (Levy, 2008: 1). In order to achieve that balance the instructors has to know how to organize technological resources and how they can combine them with face to face to teacher-student and student-student interaction (*ibid*). In this regard, Sotillo (2000: 83) can be quoted:

> …..in the hands of professors who know what they are doing, online instruction is superior to face to face interaction. It appears that synchronous electronic discussion is more efficient in terms of time on task than ordinary classroom discourse, and that the decrease in teacher

domination of discussions creates more opportunities for the production
of more complex language.

However, Levy (2008: 2) believes that broad claim about the advantage of CALL should be analyzed with some "skepticism" because of the complexity of language and language learning and diversity of students and learning strategies.

Compared to synchronous communication there have been less studies on asynchronous communication that is probably because of the confounding variables (Levy, 2008: 8). Among the few studies, Sottilo (2000: 104) explores that students tend to focus on accuracy and form in asynchronous communication whereas they only focus on meaning and fluency in synchronous communication but still many grammatical and spelling mistakes are found in asynchronous communication (*ibid*). Sottilo's (2000) study concludes that synchronous and asynchronous communication influence learners' attention differently and affect both language learning and production.

2.5 Self-access center (SAC)

Self-access language learning is an approach to learning, not an approach to teaching (Gardner and Miller, 1999). A self-access center is not just a collection of materials rather it combines a number of learning elements that provides learners with a different kind of learning environment (*ibid*). Self-access center can benefit all types of language learners since it is not culture specific or age specific (*ibid*). Self access center is a powerful tool to enhance learners' capacity of independent and lifelong

learning (Miller et al., 2007). Gardner and Miller (1999) found in a study that learners were very positive about the benefits of self-access center. Malcolm (2004) thinks that active coordination among SAC administrators, staffs, instructors and students is essential. So he suggests that students can be actively involved to establish and maintain SAC in several ways like managing resources, providing input in material designing to make it suitable for their context and so on.

Institutions' attitude is important to establish self-access center. In a highly structured institution, the introduction of self-access center needs to be included in their policy (Jones, 2001). The institutional influence becomes more important where funding is required for a self-access center (*ibid*). Teachers and other decision makers need to have time to learn about how self-access center can be used in language teaching and to reflect on how it might work best in their context (Miller, et al., 2007).

According to Gardner and Miller (1999), a self-access center can be of three types based on its structure of support—structured (complete guidance is given to learners on how to enter the system and how to move through it), semi-structured (learners choose their own materials and skills to work on but they can ask for guidance if they need) and unstructured (learners have to decide on their own learning and monitor their progress). However, SAC cannot replace a teacher (Jones, 2001). Rather it creates new and important roles for teachers which they need to adopt or adapt (*ibid*).

No self-access system is better than any other. It is adapted to suit the context where it occurs. So what works well for one group might not be appropriate for another group (Gardner and Miller, 1999). Gardner and Miller (1999:58) suggest different types of self-access system with interesting names like Telephone sales, Mobile shop, Market stall, Bring and buy sale, Postal sales, Boutique, Video-rental shop, Technology shop and many more. Among them, "Telephone sales" is such a system where learners contact their teachers by telephone or email and get access to materials through their computer and internet and it is suitable for university students (*ibid*).

2.6 What is blog?

According to Eastment (2005) blogs are simply online diaries where an individual can write their thoughts, reflection or whatever they choose with an option for the readers to post comments. Bella (2005) says that weblog or blog is a website that can be created and updated easily and people can publish in blog instantly without having any knowledge of HTML (Hyper Text Markup Language) programming. To make the definition simpler, Barlett-Bragg (2003) defines blog as a collection of entries usually written by single author and presented in reverse chronological order. Weblog entries are made by typing directly into the browser and all type of formatting like spacing, italic, bold, underline creating link can be done without any knowledge of HTML or FTP (File Transfer Protocol) so that anyone who can type, copy and paste can create and maintain a blog (Campbell, 2003; Godwin-Jones, 2003). Perhaps, the incredible growth of blogs can be attributed to the simplicity of creating and maintaining a blog (Barlett-Bragg, 2003). The accumulation of writings and other contents in a blog create a record of learning and resource for others (Campbell, 2003). A weblog is

16

very interactive as readers can post comments on any given entries and threaded discussion can take place if the chosen software supports (*ibid*). As a limitation of weblog, Godwin-Jones (2003:14) mentions that entries are accessible in chronological order but not in the order of content.

2.7 Blog as a teaching and learning tool

Campbell (2003) introduces following three uses of weblogs that can be utilized for learning outside the classroom—

1. The Tutor Blog: It can perform three functions. Firstly, learners and parents can find information about course outline, assessment, homework, due dates of assignments etc. in tutor blog. Secondly, it can be used as a portal where the teacher can post different materials and websites for learners' self study. It may also foster learner autonomy. Thirdly, the blog can be used to give voice to someone's feelings and thoughts. The students can post their comments regarding any classroom activity. Thus the teacher can also keep a track of students' improvement in writing.

2. The Learner Blog: This blog can be run by individual learners or groups of learners. Learner blog may be best suited for reading and writing classes. A common reading assignment can be followed by comments of all the learners where the students get a writing practice.

3. The Class Blog: It is a joint effort between teacher and students. It can be an open space for students to express their thoughts about any classroom activities. Class blogs may be useful for project-based language learning where learners are given

the opportunity to develop research and writing skills by being asked to create an online resource for others. It also can be as a virtual classroom for international students where the students from different countries will get access and publishing rights in this blog.

Soares (2008: 518) terms the learner blog as a personal library where students will get reference materials, books and many more for further study. She continues that since learners' written works get published in blog it makes them more concerned about their writing. She also suggests that learner blog can be used as an online portfolio of where students can go back to their previous work and measure their continuous progress during a writing course. About learner blog, Barlett-Bragg (2003) states that since the content become sole responsibility of the learners it may lead learners to deep-learning.

Stanely (in Soares, 2008:520) thinks that class blog is best used as an "extra-curricular extension of the classroom" that encourages the learners to think in depth about the topics discussed in classroom. Soares (2008:520) states that the best advantage of using blog in language classroom is that several groups of learners can interact with each other all over the world through blogging. The interaction not only involves authentic use of target language but also sharing of culture, thoughts, feelings and values that make the learning more concrete and enjoyable (*ibid*).

Kavaliauskiene et al. (2006:221) find that using blog in EFL writing class makes the learners feel that their writing is not only for the classmates or teachers but for the whole world and thus it raises their language awareness. They conducted their study on the first year students of Mykolas Romeries University who were learning English for specific purpose. From their study Kavaliauskiene et al. (2006:227) notice the following issues—

1. Blog allows learners to learn at their own pace and it overcomes their fear of making errors and enhances self-esteem.

2. It can increase learners' motivation because of its novelty and diversity.

3. Students get feedback not only from their teachers but also from the other readers of the blogs.

4. In a blog, learners can go back to their previous performance and compare it with their present works. Thus they can measure their own improvement.

Horvath (2009:8) identifies blog as a way of developing community bonding and individual autonomy in reading and writing courses at tertiary level. Godwin-Jones (2003:14) thinks that blog can be productive for project based language learning.

2.8 Podcast and its role in language teaching

The term "podcast" is originated from the term "pod" (acronym of Personal On Demand) and "broadcast" (Smythe and Neufeld, 2010:488). Pozzobon (2008:112) defined podcast as regular audio or video program that is accessible via internet and can be downloaded to computer or personal devices so that the user can view or listen

to it anytime. However, Smythe and Neufeld (2010) give a more technical definition of podcast. According to them, a podcast is one of the web 2.0 digital social networking tools (like blogs, Facebook, and Youtube) that provide platform for the user generated content, often by means portable media players like iPod or MP3 players. Though many institutions have banned these accessories since they cause distraction among the students, students outside the schools are "infused" with this technology (Lee, McLoughlin and Chan, 2007). So using these applications in the classroom may encourage learners to be involved in learning new things (*ibid*). Podcast can be in found several websites like BBC or on specialized software like Apple's iTunes (Pozzobon, 2008:112). One of the main attractions of podcast is that learners can create their own podcast (individually or collaboratively) in order to reach the authentic audience (Smythe and Neufeld, 2010:489). It does not require deep knowledge in technology and the product is reusable, portable and keeps learners engaged in a creative learning process for an extended period of time (Lee, McLoughlin and Chan, 2007).

Podcast can be of different types as Stanely (in Pozzobon, 2008:113) comes up with three types of podcasts—authentic podcast (created for general people), teacher podcast (created by teachers to help students) and students podcast (produced by students often with the help of teachers). It is clear from this study that teachers can not only produce their own podcast but also engage the students in producing them that conform to Erben, Ban and Castaneda's (2009:18) third principle of "creating effective second language learning environment" that urge to give learners classroom time to use their English productively. With this tool, teachers can ensure that their

20

students are listening to authentic content at least for a period of time that will help them to attain a level of proficiency (Pozzobon, 2008:113). Besides, podcast does not confine the students to passive listening; rather it makes them participate actively in producing (*ibid*). Dudency and Hockly (2007) point out that the teachers can record their class lecture and publish them in university website for the students who miss those classes.

2.9 Creating and posting podcast

Smythe and Neufeld (2010: 489) suggest a software named GarageBand that is widely used to create podcast on Apple computer. Using this software, the students can control the sound effect and music of their podcast. Chartrand and Pellowe (2007) create two podcast with the assistance of their students following the steps mentioned below—

1. At first they brainstormed about some important points like the level of the targeted learners, the number of episodes of the podcast, the kind of conversation and so on and so forth.

2. Then they scripted conversation for the students of beginner and intermediate level.

3. They use Apple computer (iMacG5), an Edirol UA-3FX USB audio capture unit and an Audio Technica microphone to record the conversations.

4. For editing and mixing the recordings, they use GarageBand 3, iTunes 7 and SoundStudio 3 software.

5. They modified the pace of dialogues based on the learners' level. For beginner level, they included a slow-paced version of the dialogues whereas for intermediate level they use a faster version and the dialogues tended to be longer.

However, there are only few websites where one can upload his/her podcast free of cost. Since podcast requires a huge memory because of the audio or video files, most of the websites charge for disk space and storage usage (Pozzobon, 2008). Pozzobon (2008) recommends the website called Podbean that offers the opportunity of creating, listening and subscribing to podcast without any cost. It is to be noted that the users can use only 100MB space free of cost in this website (*ibid*).

2.10 Social networking site (Facebook) in language teaching

Social networking sites are the new form of CMC (see Blattner and Fiori, 2009). According to Knobel et. al. (1998), computer based learning is not just the mere existence of hardware and software rather it requires the "coming together" of people in learning mediated by the network. Nowadays, Knobel's learning network has taken the form of Social Networking Communities (SNC) (Blattner and Fiori, 2009:19). According to Blattner and Fiori (2009:19), Facebook is the fastest growing and best known site on the internet that has more than 100 million members. In 2006, Stuzman explored from his survey that university going students are the largest users of Facebook as 90% of undergraduate students and 22% of the graduate students who were surveyed use this SNC. Veer (2010:158) terms Facebook as a "hip, hot and happening site" where members can "witness" each other's life by viewing and

sharing numerous quantities of information. Blattner and Fiori (2009:19) find Facebook to be more "sophisticated" than many other SNCs like MySpace, Friendster, Blackboard, WebCT, Angel and many more.

2.11 Role of SNC (Facebook) in education

Blattner and Fiori (2009) believe that Facebook can be a powerful learning tool since it allows its user to experience various patterns of interaction. To illustrate, Veer (2010:65) points out that in Facebook people can imitate different types of real life conversation as they can poke a friend, give a virtual hi or hello, write on somebody's wall and send cyber gifts. Facebook offers several forums for students where they can find job, roommate or even textbook (Blattner and Fiori, 2009). Students or instructor can create a link for any particular course and invite other students to join that link, which give them the opportunity to collaborate and exchange knowledge outside the classroom (*ibid*). The instructor can post many important notices like time and place of next class, discussion topic, deadline of assignment, email address, office hour and many more. Joining any group is an interesting and popular feature of Facebook (Blattner and Fiori, 2009) and according to Veer (2010) this feature can be used for language classroom to promote constructive thinking.

Recent investigations have discovered that Facebook can have a positive impact on student-to-student and student-to-teacher relationship (Mazer, et. al., 2007). Mazer and his colleagues (2007) have explored that by accessing social networking sites learners can find the common interest with the peers and instructors that lead to a

comfortable interaction and leaning environment. O'Sullivan (2004) and his co-authors find out that the students who have access to instructors' web page containing "self-disclosed" information have a high level of motivation and develop a positive attitude towards the course and teacher. Thus it can be said that SNC like facebook can be an effective tool to build up a community among the students and teachers. Probably for this reason Blattner and Fiori (2009:21) think that recognition of the academic opportunities that a SNC offers is important both for students and teachers. Instructors need to realize that Facebook is an important part of students daily "e-routine"; so if a teacher can use it for providing guidance "it will be an invaluable asset to their educational and social experience" (*ibid*).

Facebook can also develop learners' pragmatic competence (Blattner and Fiori, 2009:22). Pragmatic competence includes the knowledge of speech act and the ability to use a language appropriately in a specific context (Eslami-Rasekh, 2005). It is a major aspect of language learning (*ibid*). Kasper and Rose (2003) further elaborated this definition by adding that "pragmatics deals with the way speakers and writers achieve goals as social actors who respect social norms in order to attain interpersonal relationships with interlocutors". Facebook allows its users to perform meaningful interaction with the speakers of their native language as well as of other languages that gives them access to authentic information on various topics (Blattener and Fiori, 2009). Thus facebook can be considered as an innovative tool to develop learners' socio-pragmatic awareness and competence in second or foreign language (*ibid*). The authors emphasize on Facebook groups that provide learners with the opportunity to experience realistic and authentic language through discussion forum. Kasper and

Rose (2003) also agree with them and suggest that learners can use their observation power as a tool to understand the pragmatic practices of any community in facebook.

2.12 Other e-tools for CALL and CALT

Apart from blog, facebook and podcast, there are many other tools and websites for teaching and learning. Such as—

2.12.1 Email

Email stands for electronic mail that allows users to exchange electronic messages and computer files from one computer to others (Erban, et al., 2009). Like a pen-pal, students can have key-pal with who they can exchange email (*ibid*). According to Nagel (1999), exchanging email among the students of a classroom motivates them to participate and it does not require to be very expert in using computer.

2.12.2 Skype

Skype is a communication tool that allows users to make audio and video calls over the Internet and also to land line (Eaton, 2010). Calls to other Skype users are free and probably for this reason, in the mid of 2010, Skype had more than 124 million users who made 95 billion calls, of which approximately 40% were video call (*ibid*). If a computer is connected to a large screen or projector, Skype can be used to teach a large class where the teachers and students might not be at the same place (*ibid*).

2.12.3 Listservs

Listservs allows a group of people with common interest to join and participate in an organized and moderated email discussion group (Earban et al., 2009:122). Teachers

can use already existing listservs or they can create a personalized and closed listservs for their own class or group (*ibid*). Learners can practise English in this discussion forum on many topics, such as English grammar, colloquial English, English idioms, and varieties of English and so on (*ibid*).

2.12.4 Wikis

Wikis is a collaborative website that can help students to develop their writing skill (Holtman, 2009:30; Erban et al., 2009:122). The term Wikis is coined from Hawaiian language which means "quick" (Erban et al., 2009). It allows members to post new writings and edit the existing posts (Holtman, 2009). Thus the teachers can check students writing and provide feedback in Wikis (*ibid*).

2.12.5 Some useful websites

Erban et al. (2009:173) suggest the following websites that may help teachers and students—

www.useingenglish.com

www.sitesforteachers.com

www.esl-galaxy.com

www.atozteacherstuff.com

www.coollessons.org

www.eslcafe.com

2.13 Distance education: Teaching and learning in virtual world

With the advancement of technology, learning has become such an activity where location is less important and probably for this reason distance education has become popular in the realm of education. Davey (in Carter and Elseth, 2009:444) define distance learning as a formal educational process that occurs with the teachers and students separated by time and distance. Wilson (in Carter and Elseth, 2009:444) states that "distance learning is an educational approach that integrates technology, connectivity, curricular content and human resources" to teach student outside of a traditional classroom. Learning is no longer confined to four walls of a building but can take place anywhere and anytime, facilitated by digital information and communication technology (Kluge and Riley, 2008:128). The emergence of online 3D virtual worlds poses many exciting opportunities and challenges for teachers (*ibid*). Gesche (2009:525) names this 3-D world as "Virtual Third Space", originally coined from Bhabha (in Gesche, 2009:526). According to him, it is such a space where people can "construct, reconstruct and negotiate identity" and the identity is temporary rather than fixed. Kluge and Riley (2008:128) have mentioned virtual world as "Metaverese" where residents can design their avatar, create their environment and function in a ways that resemble to the real world. The popularity of virtual world is increasing day by day. Linden Lab's "Second Life" (SL), one of the leading virtual worlds, has grown from 230,000 users in 2006 to 8.5 million in 2007 and it has been predicted that 80% of the active internet users will take part in virtual world by the end of 2011 (Klug and Riley, 2008). Nowadays people not only interact in SL but also trade there with "Linden dollar" and they can buy island, house, office space and many more within the world itself (Coffman and Klinger, 2007).

The language learners cannot get a real life environment to practice their target language but virtual worlds like Second Life can provide learners with that platform (Sherblom et al., 2009). Gesche (2009) believes that virtual learning communities have become popular for several reasons such as—providing new platform for language learning; creating an exciting "trans-cultural communicative space"; facilitating inter-cultural communication and providing opportunities for real life interaction. Broadribb et al. (2009), Klug and Riley (2008) and Coffman and Klinger (2007) discuss the opportunities and significance of virtual world in education—

- Virtual environment has the potential to fully immerse the learners in the learning process.

- It allows learners from different places to collaborate on the same topic and learners can use their imagination and creativity to perform any particular task.

- In virtual world, educator can prepare the learners for the complex and interconnected global society.

- In distance education program, learners can have a sense of participating in a classroom through the virtual world.

Carter and Elseth (2009) thinks that learners get more engaged in Second Life because they not only can mimic real life actions but also can do a lot more that is not possible in real setting like flying without any transport, visiting museums, gothic cathedral, dangerous and new places and what not. They further says that while visiting these places learners meet and talk with people who exist in the real world and it stimulates an authentic situation to converse.

In spite of having much potential, using virtual world for education is challenging both from a student's and teacher's perspective. Participation in virtual world requires learners to have vigorous knowledge of computer and internet (Kluge and Riley, 2008:131). Teachers and parents often frown at Second Life since they consider it only as an online game (Carter and Elseth, 2009). There is a dearth of qualified and trained teachers who can design and instruct courses in virtual space (Swertz et al., 2009). Gesche (2009) also states that designing language class for virtual setting needs careful preparation both in technical level and personal level. Sherblom et al. (2009) finds that both teachers and students experience numerous challenges in virtual world like gaining access, managing internet and Second Life distraction, coping with computer problems and so on. Cost is another challenge for the implementation of virtual world education. It requires high-speed net connection with modern computers (Kluge and Riley, 2008). In Second Life, though the basic account is free, it costs $9.99 per month to create any educational presence (*ibid*). Liability issues are still at question in virtual world (Bugeza, 2008). Many illegal acts like virtual violence, harassment, and assault take place in Second Life and the issue whether a teacher will be liable for that to not need to be resolved (*ibid*). Besides, some students may find the world so exciting that they may get distracted from the educational purpose (Kluge and Riley, 2008).

2.14 Education system in Bangladesh

The education system of Bangladesh is broadly divided into three categories—general education, madrasa education and vocational education (Anwar, 2006). Primary education, secondary education and tertiary education are the three parts of general

education (Pouezevara and Khan, 2007:9). Primary education, managed by the Ministry of Primary and Mass Education, is consisted of grade 1 to 5 (*ibid*). Hossain (2010) categorizes the secondary education into three sub-categories—junior-secondary (grade 6 to 8), secondary (grade 9 to 10) and higher secondary (grade 11 to 12). The students who get their higher secondary certificate (HSC) can enroll in tertiary education. They can go for 3-year degree pass course in degree level college or 4-years honors course based on their capacity and interest (Patra et al., 2010). There are total 88 universities in Bangladesh—31 public universities and 54 private universities (http://www.ugc.gov.bd/university/?action=public). Bangladesh National University (BNU) and Bangladesh Open University (BOU) are two special universities where the former offers university courses in affiliation with different colleges and the later provides non-campus distance education (Patra et al. 2010:40). Besides private universities, there are two international universities that provide world class standard education (*ibid*).

Madrasa education is very similar to general education but the secondary phase is known as Dakhil and higher secondary stage is known as Alim (Anwar, 2006). Technical and vocational courses are offered in vocational and trade institute after the completion of primary level (Patra et al. 2010)

2.15 E-learning and distance education in Bangladesh

E-learning or electronic learning is a technology driven learning system where all the learning and teaching activities are carried out via network and electronic devices

(Patra et al., 2010). There are very few studies on e-learning in Bangladeshi context and the available studies focus on general learning and teaching not on language teaching. According to Islam and Selim (2006a), e-learning was first introduced in Bangladesh in 1956 via radio-broadcast and it was expanded by Bangladesh Open University (BOU) in 1992. Though it has been quite a long time it is still far behind in terms of using modern ICT (Islam and Selim, 2006b). They mainly deliver their lessons via television and radio but if they make these lessons available online students can access them anytime from anywhere (Andersson, 2008). However, Bangladesh is now connected to "the information super-highway" through sub-marine cables which will add a new dimension in the expansion of e-learning in Bangladesh (Islam and Selim, 2006b). But, e-learning poses both prospects and challenges for the developing countries like Bangladesh (Islam and Selim, 2006a).

2.16 Prospects of e-learning for Bangladesh

Patra et al. (2010) list the following benefits of e-learning in Bangladeshi context—

1. In a country of more than 140 million populations, it is not possible for the Bangladesh government to make infrastructure to admit all the students. By initiating e-learning program, a small number of institutions can provide education to a large number of students.

2. Bangladesh government has declared to build ICT based digital Bangladesh and e-learning is a crucial part of that goal.

3. E-learning is very cost effective since it does not require any classroom and students also do not need to come to class or purchase reading materials. All the reading materials can be provided through internet.

4. Online registration and advising save time both for the students and teachers. A number of universities have started to perform the formalities of registration through online.

5. E-learning provides self-learning opportunities for the students and they can continue working beside their study.

Akbar (2005) states that the demand for higher education is increasing but many students drop out after their higher secondary education due to various reasons like poor socioeconomic condition, dearth of universities in many areas and so forth. He believes that e-learning can meet the demand of higher education and better learning materials of these students ensuring quality output.

2.17 Challenges for Bangladesh in E-learning

E-learning is till now a new concept for the Bangladeshi learners (Akbar, 2005). To introduce e-learning education system, there are a number of challenges need to be faced. For example, Akbar (2005) mentions about the unavailability of computer and internet connection. According to him, except the urban areas, computer and internet connection is not accessible for common people in many areas. Islam and Selim (2006a) also agree on that point. They explore from their study that the poor socio-economic condition of Bangladeshi might posit a huge challenge for the implementation of e-learning.

32

Andersson (2008) marks educational setting as an impediment to the execution of e-learning. She conducts her study on two developing countries—Bangladesh and Sri Lanka where she discovers that the students in developing countries are used to authoritarian classroom setting. In such a situation, initiating e-learning courses will be very challenging and the challenge for students is not only about technology but also about the structure of educational setting. She also finds lack of flexibility in the curricula, learners' lack of responsibility for their own learning, time management and indifference of the administration to be responsible for the failure of e-learning program in Bangladesh.

Akbar (2005) discovers that local authorities are yet to accept e-learning facilities in Bangladeshi framework. So he recommends that with high technology, user friendly environment is also necessary for the success of e-learning. Andersson (2008) points out that lack of trained teachers to conduct e-learning courses is another problem to be considered. Besides, Akbar (2005) emphasizes that most of the materials used for e-learning are developed in western context. So developing local materials that are relevant to Bangla language and culture is very important to implement e-learning.

2.18 Social constructivism and social learning in Teacher Education

Learning is highly a social activity (Pritchard and Wollard, 2010:34). This finding is based on Lev Vygotsky's (1978) theory of social constructivism (in Pritchard and Wollard, 2010) which asserts that human learners depend on social interaction for stimulus, challenges and shared activity to promote thinking, engagement with the

33

ideas and knowledge. Pritchard and Wollard (2010:35) find three major points from this theory. They are—people around the learner have a central role in learning; they influence how learners see the world; and certain tools influence the way learning and intellectual development progress. Similarly, Randall and Thornton (2001) also come up with a number of key concepts of the Vygotskian theory of learning. It is to be noted that they relate this theory to teacher education considering teachers as learners and teacher educators as expert individual. Their points are as followings—

- Knowledge is constructed by interaction usually between a learner and a more expert individual.

- At the beginning, knowledge exists on an inter-psychological plane (in social interaction) and then it is transferred to intra-psychological plane (in learners' mind).

- Learning of new ideas or "appropriation" takes place when the new ideas are moved from inter- to intra-psychological level.

- For each learner (here, teachers), there are concepts skills that exist 'on the edge' of their knowledge which is known as their Zone of Proximal Development (ZPD). They can deal with these concepts or skills if they get help from more experts (like teacher educator or advisor).

- The process of helping a student-teacher through ZPD and to "appropriate" a new concept is termed as scaffolding. The advisor can help teachers in this process through discussion.

Beck and Kosnik (2006) believe that social constructivism is an approach that can help deal with the challenges and tensions of teacher education since it encourages all the members of a learning community to present their ideas strongly while remaining open to the others. Based on that, it can be said that the institution and authorities play a vital role for the development of teacher education. According to Clarke and Hollingsworth (in Geijsel et al., 2009:407), it is important to consider teachers as learners and institution as learning community for teachers' development. To Beck and Kosnik (2006), teacher education is so crucial that authorities should give more time, resources and efforts to it to develop teachers' experience and professional skill. Constructing own knowledge is also important in social constructivism approach as no new knowledge can be learned without linking it to the existing knowledge (Dewey in Beck and Kosnik, 2006). However, Geijsel et al. (2009:410) think that since social constructivism views learning as a process involving each and every member of a learning community, teachers' participation in decision making can add to the teachers' sense of "self-efficacy" and thus motivate their learning. The authors further say that though psychological factors and background knowledge is important for learning, organizational structure also matters in the learning process.

Student-teacher should have time and encouragement to reflect on what they are learning (Beck and Kosnik, 2006). With encouragement and support, teachers start to develop their own teaching style that fits their individual need and talent (*ibid*). As an example of teacher's construction of pedagogy, Beck and Kosnik (2006) discuss teachers' approach to technology in education. According to them, the teachers who are comfortable with technology tend to make it central in their way of teaching

whereas those who have negative experience with technology pick discussion, reading and so forth as their main teaching tool. They further say that though it is necessary for the teachers to use technology as much as possible, "allowing differences to degree facilitates optimal teacher development and performance".

2.19 Teacher training on CALT

Teachers may need to design, implement and evaluate a CALL activity. So it is becoming important for the teachers to be familiar with CALL opportunities inside and outside the classrooms (Jones, 2001:361; Fotos and Browne, 2004:3). Jones (2001:362) think that technology and computer cannot replace teachers rather it assigns teachers different new roles like facilitator, organizer, guide, material designer, monitor and so forth. So according to him training on CALL is necessary for the language teachers to perform these roles properly. Several researches (for example, Kessler, 2006:22) suggest that there is hardly any formal course or program to help the teachers who are interested in CALL. So they avoid using technology in their classroom and those who are very enthusiastic attend seminars, workshops and conferences to satisfy their enthusiasm by questioning or discussing with the more experienced people (Kessler, 2006:24). Kessler (2006:24) believes that the "formal language teacher preparation programs" neglect to prepare their graduates with the knowledge of technology. Levy (1997) recommends ongoing supports to appreciate and implement CALL effectively.

Though there is a wide support for teachers to use technology the question is what type of training is necessary for the teachers. Several colleges of education have already incorporated basic computer skills such as, keyboarding, mouse skill, working with menus and sub-menus in their courses (NCATE, 2008). Knowledge of different electronic communication like email, discussion board and file sharing are important to collaborate with students and colleagues (Kessler, 2006). Fotos and Browne (2004) emphasize on the use of internet and CMC for today's academic environment. Similarly, Hirvela (2006:234) also highlighted CMC to be integrated in teacher training since it promotes collaboration and at the same time creates an archive of valuable comments and opinion that teachers or teacher educators can access anytime from anywhere for further clarification. Son (2002) pays attention to more sophisticated skills like video teleconferencing, chatting, developing web-based materials, blogs and other forums that enhance not only classroom learning but also distance learning. Green and Tanner (2005) also encourage distance teacher education program because it allows the trainees to use their "multiple intelligence". Ebsworth et al. (2004) have a different experience of teacher education. They used only video tapes for their training program and they get a positive response from the teachers (146). In their program, in addition to advisors' feedback, the trainees get self-feedback when they watch their own videotapes and they not only enjoy it but also review their language use (151). However, Daud (in Kessler, 2006) suggests teachers not to expect that technology will handle all their teaching problems.

Egbart et al. (2002) explores that teachers often cannot use technology in spite of having knowledge and training on CALL because of some obstacles. According to the

author, the main impediments are time, curricula and administrative restriction, and insufficient resources. So it can be said that in addition to teacher training, hardware, software, technical assistance, curricula and administrative support and, last but the least, emotional support are the resources required for the implementation of CALL (Egbart, 2002). Jones (2001:365) observes that administrative and classroom duties prevent teachers to be enthusiast about training on CALL and even if they are provided with training they may not find enough time to put their new knowledge in to practice. He further says that if curriculum is enhanced by CALL teachers may feel interested in it.

2.20 Teacher education in Bangladesh

Teachers are, in broad sense, learners because they learn twice—once for themselves and again for students (Khan, 2005). Though, in recent days, teacher training has got attention it is still a problem area in Bangladesh. According to Rahmna (1998), training is obligatory only at the secondary level. There is no pre-service training for the teachers of primary, higher-secondary and tertiary levels (*ibid*). Sultana (2005) discovers in her study that only 36% of the teachers of private universities have training on teaching but further inquiry proves that they have a wrong conception of teacher training. They consider seminar, workshop and conferences as training. Quader (2005) says that teachers at college, Degree and Masters levels under the National University undergo a training of three months before going into the classroom but the training is neither extensive nor intensive. But, she believes that life is becoming very competitive in the present world and in this competitive world, teachers need to be trained so that they can carry out their work properly. However,

according to Sultana (2005), compared to public universities, private universities give more importance on teacher development but still constant changing of work place on the part of faculty members and continuous replacement of teachers by the universities show that none of the parties are satisfied with the present situation. So she suggests teachers to take control of their own development to cope with the "complex, competitive and ever changing world of teaching". She especially urges the private universities to launch and support teacher training programs that will maintain the quality of education leading to the growth of universities. She further says in her article that besides providing training, the universities also should arrange seminars, conferences and workshop for teachers' and also students' betterment

In Bangladesh, there are 116 Teacher Training Colleges (TTCs) (15 governments and 101 private) that offer 1-year Bachelor of Education (B. Ed) degree to the secondary school teachers (Pouezevara and Khan, 2007:11). In addition to these TTCs, NIEAR (National Institute of Education, Administration, Extension and Research), IER (Institute of Education and Research), BIDE (Bangladesh Institute of Distance Education), NAEM (National Academy of Educational Management) and some other private institutions provide training for the teachers of secondary level but there is not always an English specialist to train the English teachers (Rahman, 1998:99). Teachers hardly receive any training for teaching a particular subject and as a result, they teach in the classrooms through age old methods and techniques (Khan, 2005:119). Moreover, the syllabuses of the existing training focus more on the theoretical aspects of teaching method and as a consequence the trainees cannot utilize their knowledge in the classroom situation (Rahman, 1998 and Yasmeen,

2005). Unfortunately, policy makers ignore these issues that create a gap between the knowledge of training and the things practiced (*ibid*). At present ADB (Asian Development Bank) is funding TQI-SEP 2005-2011 (Teaching Quality Improvement in Secondary Education Project) that provides training to all eligible teachers of grades 6 – 10 in government and private schools (Pouezevara and Khan, 2007:13). There are also some government projects like ELTIP, PERC for secondary and primary English teachers but lack of coordination in these projects is often responsible for not achieving the expected result (Khan, 2005:120). To fill up this lacking, BRAC, an NGO, has come forward with the project named PACE (Post Primary and Continued Education) where the local experts provide training to the secondary English teachers and also teacher trainers (*ibid*).

It has been said earlier that there is no pre-service training for the teachers of tertiary level except the three months training provided by National University to their teachers. From Quader's (2005) study, it has been found that the training take place in several venues like Bangladesh Institute of Administration and Management (BIAM), North South University and some other places and trainees are accommodated at the National University Campus in Gazipur from where they are transported daily to the training place. However none of the trainings discussed above educate teachers with the knowledge of technology and its advantages.

CHAPTER – III

METHODOLOGY

3.0 Introduction

This chapter deals with the theory and methods applied for this study. The design of this research, theoretical framework, sampling, setting, data analysis procedure and the problems of data collection are discussed in this chapter. The justification for sampling and setting is also discussed here.

3.1 Research Design

This study is a descriptive and analytical research work. The data were collected from 113 teachers of 15 private universities and 2 public universities. Interview was used as a method of collecting data. The teachers were interviewed in their universities in a formal setting. The selected universities were contacted at first to get permission and then the teachers were interviewed during their appointed time. The collected data were tabulated and analyzed based on the central research question. Vygotsky's (1978) theory of social constructivism was used to analyze to the data.

3.2 Theoretical Framework

Vygotsky's (1978) theory of social constructivism has been used in this study to analyze the data as Beck and Kosnik (2006:8) believes that social constructivism is not just a theoretical idea; it can play a significant role in solving the problems and

tensions teachers face in teacher education. According to Vygotsky (1978) and Beck and Kosnik (2006), all the members of a learning community has to present their ideas strongly while remaining open to others ideas. No idea or thought can be conveyed without linking it to the existing knowledge; new ideas must be based on the old ones since learning/teaching is a gradual process rather than a sudden initiative (Randall and Thornton, 2001). So it is important to provide new knowledge based on their existing knowledge. Beck and Kosnik (2006) claim that with encouragement and support from the learning community, student-teachers begin to develop their own pedagogy that fits their needs and talent. Society or community has to play a vital role in this gradual process of learning teaching as Brophy (in Beck and Kosnik, 2006:9) claimed that a well-developed community can have a positive influence on teaching. Beck and Kosnik, (2006:8) feels that while improving working conditions and resources, high quality training should be provided to the teachers to enhance their experience, and institutions should spend more on training than they used to spend before. This study will analyze what kind of support the teachers get from their universities to develop their teaching skill, and whether the authority is cooperative enough to spend money to develop their teachers' skill in using computer and technology.

3.3 Sampling

The study focuses on both the private and public universities. The universities were selected form University Grant Commission's (UGC) website. According to the UGC website (http://www.ugc.gov.bd/university/?action=public), there are 56 private and 31 public universities in Bangladesh. Among them 46 private and 3 public

universities are situated in Dhaka (UGC website). So, 15 private and 2 public universities of Dhaka city were chosen to collect data based on their availability. Minimum 6 teachers from each university were interviewed. The teachers who teach English language courses were interviewed for this study. Those who teach literature were excluded from sampling. However, it is to be noted here that one university had only four language teachers. So, in that university, four teachers were interviewed.

The administrators of the universities were also interviewed for collecting data. The administrators were of various designations like Chairperson, Dean, Administrative Manager, Academic Affairs Manager and Registrar who can talk about the universities' existing situation and future plan. One administrator from each university was chosen for interview. In total 17 administrators were interviewed from both public and private universities.

3.4 Setting

The teachers were interviewed in formal setting (in university) since it is difficult to contact them outside the university. So the setting might influence their responses as they were diplomatic while talking in the formal environment. However, for some teachers, the interviews were taken over telephone with the permission of the respective teachers since they could not manage time during their office hour. The interview session took 15 to 20 minutes.

The administrators' interviews were also taken in their office. Since they were in a formal environment and surrounded by other staffs and colleagues they were very diplomatic while talking. Some of them directly refused to answer some questions.

3.5 Instrumentation

Interview was used as an instrument to collect data as it helps to get more authentic information. Both the teachers and administrators were interviewed. They were asked the questions from the set of the interview-questions (appendix 1) but some questions were asked based on their responses. A digital voice recorder was used to record the interviews if the interviewees allowed. For the participants who did not allow to record, responses were written down in notebook.

3.6 Data Collection Procedure

As a first step of collecting data, it was important to find out the universities that have English department or offer English language courses. The academic calendars of the universities were also studied to make sure that there is no exam or holiday on the date of collecting data. Then the authorities of the universities were contacted to get permission. When they gave permission, appointments were made with the teachers of respective universities. They were interviewed on their appointed time. The interview sessions were recorded with the permission of the teachers. Similarly, the administrators were also interviewed during their appointed time.

3.7 Data Analysis Procedure

The teachers' responses were analyzed based on the theory and research questions. At first the data are tabulated and then result is presented in a descriptive manner. In Appendix 3 the responses of the individual teacher had been shown. It is to be mentioned here that in Appendix 3 from U1 to U15 were the private universities and T1 to T101 were the teachers of private universities and the rest 12 teachers were from public universities. In Appendix 4 the responses of the administrators were presented and from U1 to U15 represented the private universities and U16 to U17 were public universities. The results were presented in three steps. In the first step, a comparison was made among the universities based on their teachers and administrators response. The overall responses of all the teachers were discussed and presented in percentage in the second step. After that, the central research questions were answered and finally a connection between the theory and findings were made.

3.8 Obstacles Encountered

It was difficult to get appointment from the teachers and administrators. Some of the teachers and administrators were reluctant to talk. Besides it was monsoon during the time of data collection. So, many of the teachers and administrators cancelled their appointment as they could not come to the university due to heavy rain. Moreover, the political turmoil also caused many hindrances in collecting data. There were many *Hartal* (a mass strike called by any political party to ensure any demand). As a result, the appointments on Hartal days were cancelled and rescheduled which was very difficult.

CHAPTER – IV

FINDINGS

4.0 Introduction

Computer and internet seems to be engraved on every step of learning and teaching. In developed countries CALL (Computer Assisted Language Learning) is being used in almost every level since they have the required infrastructure and modern amenities but for the developing countries like Bangladesh, CALL is till now a new concept. Since Bangladesh is heading towards the goal of digital Bangladesh, it is high time to think of initiating CALL programs at different educational level. This study was conducted with an aim to find out whether required facilities for CALL exist in the Bangladeshi universities or not. The study also looked into teachers' competency in technology and what kind of training would make them more competent in teaching language with the assistance of technology. 17 universities (15 private universities and 2 public universities) were selected to collect data and 113 teachers and 17 administrators from those universities were contacted for interviews. The data found from the interviews have been analyzed in this chapter. The scenario of each university has been discussed first. Then the percentage is shown based on overall discussion. Finally the findings are compared to the theory and other literatures.

4.1 Responses of the teachers of private universities

In University 1 (U1 in Appendix 3), it was apparent that all the teachers (T1 – T7) used computer and internet for teaching English language. They used computer mainly for presentation and teaching listening and speaking. They had multimedia and internet connection in some classrooms. They had to give requisition in advance if they wanted to use it during class. For this reason, the multimedia rooms were not always available. The teachers did not face any problem in using computers or internet but one teacher mentioned that he often faced problem in downloading. Using internet to collect materials was very common among the teachers but they do not know about any specific website for language teaching except one teacher who uses the website www.learnenglish.britishcouncil.org. Most of the teachers (T1, T4 – T7 in Appendix 3) said that they never thought of using blogs or facebook to teach language though they were familiar with them and only two of them heard of podcasts. Two of them (T2 and T3 in Appendix 3) said that blog can be used for teaching writing and one of them had his own blog and he used it sometimes for teaching purpose. Other teachers were not aware of blog and they thought that facebook may not be effective for teaching since it is informal. All the teachers agreed on the point that training is necessary except two teachers who said that training on technology is not important for English teachers and they also do not have time for training. Most of the teachers (Appendix 3) could not provide any specific suggestion regarding what type of training or workshop would be helpful for them. Five of them (T1, T2, T3, T4, T7) said that joint venture with other universities, in-house training by IT experts, workshops on specific software, websites and recent technologies and discussion with CALL experts and teachers who use technology would be helpful for the teachers to

be aware of how they can use technology in language classes. Among seven teachers who were interviewed, four teachers (T2, T3, T4, and T7 in Appendix 3) were familiar with the term CALL whereas two teachers did not have any clear idea about it. Two teachers (T1 and T5) were totally unaware of CALL. Since there was a course on CALL in the university's brochure, it seemed most of the teachers knew about it though the course was not offered because of the lack of expert. This university did not have any self access centre. However, some teachers said that the process was going on while some teachers confounded self access center with computer lab.

In university 2 (U2 in Appendix 3), the teachers (T8 to T15) mentioned that they used computer in the classroom since their course curriculum demanded so. However, they mainly used it for presentation and teaching listening and speaking. The university had multimedia and over head projector in some classrooms. However, like U1 they also needed to give requisition for that in advance. They did not have net connection in the classroom. The teachers said that they did not face any problem in using the facilities since they were quite accustomed to using these. They used internet very frequently to collect materials but they did not follow any specific website. They took the help of different search engines like Google, Yahoo to find lessons and they adapted the materials according to learners' level. One teacher (T13 in Appendix 3) stated that she did not depend on computer very frequently; rather she mainly depended on the course book. Most of the teachers (T8, T9, T10, T11, T13, T14 and T15) had no idea of how blogs, facebook and podcasts can be used for teaching language. One teacher (T12) said that blog can be used in the classroom but facebook should not be encouraged. However, she also did not have any idea of podcasts. All

the teachers agreed that training and workshop would be helpful for them except one teacher who claimed that they already had enough knowledge to use computer. As a teacher of English language they did not need to know that much about technology. Two teachers (T12 and T13) proposed that seminars on the use of podcasts can be arranged to make the teachers aware of it. Three teachers (T8, T11 and T15) did not give any specific suggestion. The other teachers (T9, T10 and T14) suggested that within the university, some discussion or seminars can be arranged to make the teachers aware of modern technologies and websites for language teaching. Since there was no English department in U2, the language courses were often neglected by the authority. None of the teachers (Appendix 3a) had any idea about CALL and two teachers (T10 and T13) got confused between CALL courses and basic computer courses. They also did not have any self access center or language lab and one teacher confused them with computer lab.

In university 3 (U3 in Appendix 3a), the teachers mainly use power point slides for lecturing since they have multimedia in every classroom. Most of the teachers say that they do not face any problem in using computer or internet. Only two of them (T19 and T21) said that they face problems while using MS word 2007 and downloading any material from internet. Among eight teachers (from T16 to T23), seven teachers had no idea of podcast whereas one of them (T18) heard about it but she never used it in classroom. However, they were familiar with facebook and blog though they never thought of using these for teaching purpose. By common consent, training and workshop on information technology is very much important for the teachers but two of them (T22 and T23) were reluctant about training. They opined that the teachers

were too busy for training. But all the teachers agreed that the university authority would cooperate with them if they wanted to have a training session. They had a language lab and they always advised their students to go there and practise.

In university 4 (U4 in Appendix 3a), the scenario was quite different. Here, the teachers (from T24 to T30) hardly used computer inside the classroom. They only used multimedia when there was a presentation in the classroom. They had only one multimedia for English department which was available on advanced booking. Sometimes they faced problems when two teachers asked for the multimedia at the same time. However, the teachers used computer and internet for teaching preparation and most of them usually did not face any problem while using computers. Two teachers (T26 and T28) said that if they faced any problem they took help from their colleagues. It is to be noted here that all the teachers considered using MS word, browsing and checking email as the only uses of computer. They may not be aware of the other usage of computer. Seven teachers of U4 (Appendix 3) had no idea of podcast. They were aware of blog and facebook but they never thought of using them for educational purpose. Besides, since all the students did not have access to internet these tools may not be effective. Five teachers (T24, T25, T26, T27 and T30) strongly agreed that they required training and workshop to be more competent in using technology while one of them (T24) said that the university's infrastructure needed to be improved before providing training. However, some teachers indirectly expressed their doubt about whether the university authority would arrange such training or not. The other two teachers (T28 and T29) stated that training was not important for them as they already went through an intensive training program provided by the university

when they joined here. They were asked whether this training included any lesson on using technology or not and they informed that they mainly learned the use of power point and some common aspects of teaching.

The teachers (T31 to T36 in Appendix 3) of university 5 (U5 in Appendix 3) also used multimedia only for presentation like the teachers of U4 that was available on advance requisition. They sometimes used tape recorder for listening classes. The teachers mainly searched in Google for teaching materials. Apart from that they did not use any other aspect of internet or computer and probably for this reason they did not face any problem in using computer. One teacher (T32) mentioned that she quit using multimedia because of the technical problems she faced. Among the six teachers (Appendix 3) who were interviewed, none of the teachers knew about podcast but they were familiar with blog and facebook except one teacher who only knew about facebook, not about blog. Regarding training on IT, all the teachers agreed that they need training and preferably workshop to improve their skill except one teacher (T33 in Appendix 3). He believed that English teachers do not have to be expert in IT so training is not necessary for them. However, the teachers were reluctant to make any comments on whether the authority would support them or not regarding training.

The situation was worse in university 6 (U6 in Appendix 3). In this university, teachers did not have any kind of technological support. However, the teachers (T37 to T44 in Appendix 3) justified this lacking saying that since it was a new university

the authority was still developing the infrastructure. So in future they may have all these facilities. Though inside the classroom they could not use computer, they often take assistance from the computer and internet outside the classroom. But, their use was restricted to searching Google to find out materials and while doing this, they usually did not find any difficulty. But three teachers (T38, T42 and T43 in Appendix 3) stated that they faced many problems as they were not competent in using computer. None of the eight teachers were familiar with podcast but they are quite familiar with facebook and blog but they never used them for teaching purpose. One teacher (T43 in Appendix 3) was unaware of all these three tools (facebook, blog and podcast). However, they believed that training and workshops on CALL was necessary for them to improve their skill in IT. They provided some suggestions regarding training. For example, different features of Google and internet can be introduced; workshop on MS word 2007 can help teachers to use it properly; advantages of using technology can be introduced to the teachers and authority and IT experts can work in collaboration with the English teachers. They did not have SAC in their university and one teacher got confused between SAC and computer lab.

University 7 (U7 in Appendix 3) also showed the same scenario. They had two campuses in the same area and they had multimedia facility in one campus whereas the other campus did not have it. So the students of the second campus were deprived of the necessary facilities. However, in first campus, the teachers were also not happy with the existing logistic support. They expressed their frustration saying that they always could not use multimedia even if they needed it. Besides, the machines were also not in a good condition. Outside the classroom, they only used computer to

prepare any document and search through Google. In doing these tasks, they usually faced no problem but one teacher mentioned that she found it difficult to download materials from internet; some teachers faced problems while handling some devices like printer, projector, scanner and so on. So, they felt that training, workshops and seminars would help them overcome these problems but their authority would not be interested to organize such programs. The teachers needed to do it on their own. When they were asked about podcast, blog and facebook all the teachers said that they never heard of podcasts. Though some of them were familiar with blog and facebook they never thought of using them for teaching purpose. They were also asked about the term CALL but four of them had no idea of such course and they confused it with CSE course but two teachers were aware of this term and among them one emphasized on CALL course. There was no SAC in their university and one teacher confounded SAC with computer lab.

The university 8 (U8 in Appendix 3) had only four teachers (T51 to T54) to teach English language. There was no multimedia or over head projector (OHP) for language class. They had to contact the department or administration if multimedia was really necessary but they usually avoided using it because of all the hassles they had to go through. The teachers stated that the university offered the language courses because they had to do so. The authority was not much serious about the quality or progress of these courses. However, the teachers used computer and internet outside the classroom only if it was very much necessary. Since the authority did not provide any technological support for them they were not very interested in using it. As their use was very limited they faced no problem is using computer but

one teacher admitted that he was not much competent in using technology. So, training will be helpful for the teachers but the authority may not be interested in that. At the same time the infrastructure for language courses also should be improved. The teachers were not much aware of podcast. They were familiar with blog and facebook but never used them in teaching language. They were also not very familiar with CALL except one teacher (T51). Having a SAC was like day-dream for them.

In university 9 (U9 in Appendix 3), the teachers (T55 to T61 in Appendix 3) could not use computer inside the classroom as they did not have computer or multimedia facilities in English department. When they used computer outside the classroom they only used it for basic purpose like typing any document, checking email, browsing internet for materials. One teacher (T55 in Appendix 3) admitted that he was not very proficient user of computer. One teacher opined that technology made things very complicated. One teacher (T61) found it difficult to handle some devices such as, printer, and scanner and to find suitable website for students. Two teachers (T55 and T58 in Appendix 3) did not know about facebook, blog and podcast. Others were familiar with them but they never planned to use them for teaching. CALL was a new term for all the teachers. However, they were interested to learn about these terms and for this reason they felt the need of workshop and training. But some teachers mentioned that the university might not help them for training. They had to do it on their own if they were interested. The university did not have any self-access center.

The teachers of U10 (Appendix 3) used computer and multimedia mainly for giving lecture and presentation. They had multimedia facility in some classrooms but there was no internet connection in the classrooms. For teaching preparation, they used computer only to prepare documents and browse internet for collecting lessons. They did not face any problem in doing these except three teachers (T65, T67 and T68 in Appendix 3). When they faced any problem they contacted the people of IT department. When they were asked about the necessity of training they expressed their interest for training, seminars and workshop but one teacher (T63 in Appendix 3) revealed that the authority may not help in this regard. However, the other teachers said that the university authority was careful about their all kinds of needs. They suggested that training on using internet in the classroom, preparing attractive power point slides, solving virus problem and using podcast, blog and facebook would be fruitful for them. It is to be noted here that among the seven teachers who were interviewed, none of them had any idea of podcast but they knew about facebook and blog though they never thought of using them for language teaching.

The university 11 (U11 in Appendix 3) seemed to have much more improved infrastructure compared to the last few universities discussed above. They had multimedia facilities in every classroom but they did not provide internet connection in the classroom. The teachers used internet outside the classroom to browse materials but they did not follow any specific website except one teacher who followed the website www.owl.english.purdue.edu quite frequently for his writing classes. The teachers were competent in using computer and internet. They only had problem when the computer was slow or hung because of virus. One teacher (T72 in Appendix

3) mentioned that they often shared their newly acquired knowledge about computer with their colleagues and it helped them a lot. Almost all the teachers were familiar with the podcast, blog and facebook and their use for teaching purpose. One teacher (T72) had already used facebook for teaching and he also had own website where he uploaded teaching materials. The teachers agreed on the point that training is beneficial but some teacher (T71 and T74 in Appendix 3) said that it should not be mandatory. The other teachers opined that workshop is better than training since it takes less time. They were also in touch with CALL as their department offered a course on CALL. There was no self-access center in the university.

In university 12 (U12 – Appendix 3), they had a separate department for language teaching. The teachers seemed quite satisfied with the existing facilities as they had multimedia facility in every classroom. They also used tape recorder and CD player for listening classes. They used internet to collect materials but they adapted the material based on learners' level and context of the classroom. In doing so they usually did not face any problem but still they were interested to participate in training and workshop if they could manage time which was very difficult. However, they suggested that training and workshop on internet, creating blog and website, new pieces of language software would be effective for them. They further said that they were working on material designing. So knowledge on CALL would be helpful for them to prepare better materials for the students. Among the eight teachers interviewed, all of them agreed that blog and facebook could be utilized for teaching purpose but they never used them for teaching. Only one teacher (T79 in Appendix 3)

was familiar with podcast though she never used it. The teachers were also aware of the term CALL and several aspects of CALL.

The teachers of U13 (Appendix – 3) gave mixed response regarding their use of technology. Two teachers (T86 and T89 in Appendix 3) totally denied the advantages of using technology. According to them, technology made the teaching and learning process artificial and complicated. So they did not use computer or any kind of technology for teaching and they also did not feel that English teachers needed to be competent in using technology. However, the other four teachers (T84, T85, T87 and T88) said that they used computer and internet for teaching purpose but in the classroom they always could not use them since they did not have multimedia in every classroom. If it was necessary they had to inform the department earlier. They usually had no problem while using computer as they used it for basic purpose. However, one teacher (T85) said that apart from basic uses of computer she used her blog for teaching purpose. She asked her students to check blog for any important notice. They also uploaded writing and provided feedback. Regarding training, two teachers (T85 and T88 in Appendix 3) suggested that common technical problem could be discussed so that teachers could solve them on their own and workshop on preparing attractive power point slides would be of great help for them. The other teachers could not provide any suggestion but they thought that the authority had to be persuaded at first for any kind of training or workshop.

In university 14 (U14 in Appendix 3), though all the classrooms were not equipped with multimedia it was available when the teachers needed it. The teachers mainly used it for presentation and providing lecture. They used internet outside the classroom to look for materials. Some teachers (T91, T92 and T94 in Appendix 3) said that the most common problem they faced was virus in computer. Besides they also found it problematic to fix the internet problems. One teacher (T93) stated that every teacher needed to be trained up on how to connect the different parts of computer like CPU, monitor, key board and mouse because they often had to wait for the IT officer to fix a simple connection. Training on troubleshooting was also very important to that teacher. The other teachers could not provide any specific suggestion regarding training but they agreed that training was important for them.

Lastly, in university 15 (U15 in Appendix 3), teachers provided different information regarding their classroom infrastructure. Some teachers said that there was one multimedia for English department whereas other teachers said that there were several classrooms with multimedia facilities. The teachers said that the multimedia was usually available since they used it only for presentation or for any other special purpose. They usually did not face any problem while using computer but if they faced any problem they contacted the IT officers. Personally, the teachers used internet to gather materials but some of them faced problem to download audio and video files from internet. So the teachers said that they needed to participate in training and workshop to be more competent but they wanted positive response from the authority.

4.2 Responses of the teachers of public universities

The university 16 (U16 in Appendix 3) provided the teachers with two multi-medias so that teachers could always find them available. All the teachers said that they used internet for teaching purpose but not any specific website. Only one teacher (T107 in Appendix 3) said that she was more comfortable with books, board and marker instead of computer and multimedia. She only depended on books to prepare for class. No teacher heard of podcast and they did not use blog or facebook for teaching purpose except one teacher. She often used facebook for communication, group discussion and to notify students with important dates. Two teachers (T104 and T106 in Appendix 3) said that facebook and blog were not suitable for academic setting and these may not be effective as a tool since all the students were not tech savvy and they always did not have access to internet within the campus. Among six teachers, three of them could not provide any suggestion on training instantly while the rests (T103, T104 and T105 in Appendix 3) emphasized on power point slides and websites for language teaching. One teacher (T107 in Appendix 3) who was more comfortable with books said that training on technology was not essential for teachers. Teachers were diplomatic when they talked about the role of authority in organizing training. Two teachers said that the authority would help them if they wanted to get training while two other teachers expressed their doubt about authority's role. The other teachers did not want to make any comments. No teacher was familiar with the term CALL. Though two teachers heard of it they did not have any clear idea about it.

The teachers of U17 (in Appendix 3) said that they had one multimedia for English department but there was no speaker at that moment. So they could not show any

video or audio clip. They only used power point slides for lecturing. The teachers also said that the existing facilities were also getting deteriorated day by day because of poor maintenance. When they wanted to use multimedia or projector they had to call someone to carry and fix the machines in the classroom that killed their class time. However, after all these hassle they felt frustrated when the machines did not work properly. According to them, it is a common phenomenon that the computer gets hung and the projector does not work. For these reasons, they tried to avoid technology. However, they also agreed that at present, it is not possible to move without technology. So sometimes they used it when they could not avoid it. However, collecting materials from internet was very common among the teachers of U17 (Appendix 3).

4.3 Responses of the administrators of the private universities

The administrators were very diplomatic while giving interview. They hardly talked about the problems or negative sides of their university. Almost all the administrators gave the same responses. Their individual responses were as following—

In U1 (Appendix 4), the chairperson expressed his satisfaction with the existing infrastructure of the university. He believed that this university provided best technological support among all the private universities but still if the teachers needed anything else they were ready to provide it. They had already organized some seminars for the teachers and if they proposed for any training they were ready to provide it. Besides while recruiting teachers they checked their basic IT skills.

The Academic Affairs Manager of U2 (Appendix 4) said that their existing technological support was enough but there was always a scope for further improvement. The courses they offered were already computer assisted and the teacher were competent enough to use the available facilities. Their computer skill was tested before recruiting them. However, if they needed any kind of help the university would always help them.

Like U1, the chairperson of U3 (Appendix 4) also claimed that their university was providing the best technological support for its students and teachers. They recruited the teachers who had basic knowledge of computer so they usually do not face any problem in using technology. But still if they faced any problem university would provide all kind of support for them.

The chairperson of U4 (Appendix 4) disclosed that their existing infrastructure was not enough for computer aided language course but they were planning for improvement. They did not focus on teachers' IT skill. To recruit English teachers they only looked for their academic qualification and experience but when they were recruited they went through a rigorous training.

If the university gave more facilities it would be wasted since there were not enough students to use it—as is said by the chairperson of U5 (Appendix 4). They did not test teachers IT skill before recruiting but he believed that nowadays everyone is more or less competent in using computer. So it was not necessary to test their skill. However,

if the teachers needed any training or help the university would definitely provide that.

The chairperson of U6 (Appendix 4) justified their lacking saying that it was a new university and still they were working for improvement. So they needed time to ensure all the facilities. The teachers got basic help from the university but they would get more supports in future. If trainings were necessary for teachers they would provide it.

In U7 (Appendix 4), the chairperson said that their infrastructure was not good enough but their students and teachers were doing well with the existing facilities. They were planning for further improvement. The officer also informed that IT skill was not emphasized for recruiting English teacher as it was not necessary for them. But, if the teachers needed any kind of help regarding technology the university would provide that.

There was no English department in U8 (Appendix 4). It only offered fundamental English courses. So the Registrar claimed that the existing facilities were enough for teaching English. When he was asked about the logistic supports he opined that the teachers needed to approach the authority. If they voiced their problems the university would try to solve that. However, he considered it as unnecessary for the English teachers to have training on technology.

In U9 (Appendix 4), the chairperson was very reluctant to talk. He did not want to comment on university's existing facilities. He just said that they were planning for further improvement and they would like to cooperate with their teachers.

Unlike U9, the Dean of U10 (Appendix 4) was very enthusiastic about computer aided language teaching. He said that they had some lacking in their present campus but they would move to their new campus very soon where they had set up all the modern facilities required for CALL. Besides, if the teachers proposed for any training or workshop the university would try its best to arrange that. However, he also mentioned that only university would not be able to improve teachers' knowledge and skill. It was teachers' responsibility to explore the new methods and strategies and develop their own skill.

In U11 (Appendix 4), the chairperson was very unwilling to give the interview. In response to every question she said that it was an internal matter of the university and she was not supposed to make any comments on it.

The infrastructure of U12 (Appendix 4) seemed good enough for CALL and the Director of the language teaching department also expressed that satisfaction in her interview. She said that the university always prioritized students' and teachers' need. They were ready to fulfill any logical demand of the teachers. If they asked for any training they would provide it. But she also said that the teachers were already technologically quite advanced. They had all kinds of modern facilities and they were

using them very competently. While recruiting the teachers, their basic IT skill was taken into consideration.

In U13 (Appendix 4), the administrator opined that their existing infrastructure was adequate for CALL but there was always scope for further improvement. He also believed that the teachers were competent enough to use computer and other modern technologies. So they did not need any training and they hardly got time to participate in training. He slyly avoided the question of what kind of support the teachers would get from the university if they needed any training to improve their IT skill.

The chairperson of U14 (Appendix 4) was very optimistic about the university's existing infrastructure and future plan. He said that at present their technological facilities were enough but not good. They were planning to set up modern amenities in their new campus like Wi-Fi, computer lab, self-access center and so on. After establishing all these facilities if they found that their teachers need training to use them proficiently they would arrange training for that. But he thought that the teachers would not require any training because they were already competent in using computer.

The chairperson of U15 (Appendix 4) said that for English department the available facility was enough. Using technology was not important for teaching language. Teachers' interaction with the students was more important for learning language. If

the teachers demanded for more technological support or training the governing body would think about it.

4.4 Response of the administrators of public universities

The chairperson of U16 (Appendix 4) said that they had to go a long way if they wanted to initiate computer assisted language courses. Though teachers were using technology to some extent for teaching it was not enough. Regarding teachers' computer literacy, he said that public university had a set of rules and requirements for recruiting teachers where it was not mentioned that they had to have basic IT skill. So their computer skill was ignored here. However, nowadays everyone has some basic knowledge of IT and those who do not have much knowledge of computer cannot be forced to use it since every teacher has his/her own comfort zone. When he was asked about organizing training he mentioned that it was not the sole decision of the department. Training needed an amount of budget which might be the main problem. Besides, some bureaucratic problems were also there that would make it a lengthy process.

In U17 (Appendix 4) the chairperson said that the public universities hardly had any facility to implement CALL. Similarly her university also did not have enough facilities. They had one multimedia for English department that was used not only for language courses but also for other department courses. The department did not have any plan to add more facilities at that moment. The administrator said that it was not the sole decision of the dean or chairperson. There were many other formalities

involved if they planned to improve the logistic supports. Regarding teachers' computer literacy, she said that they followed some particular rules for recruiting where computer literacy was not emphasized. They mainly recruited teachers based on their qualification, publication and other academic performances. However, she agreed that training would be beneficial for the teachers if they were interested to know about CALL but they must not be forced to do that. Her department often arranged seminars on different issues. She said that the department could only arrange seminars or conferences time to time but arranging training was a very time consuming process. However, she said that there was an ongoing project to set a self-access for center for their department.

4.5 Discussion based on overall responses of the teachers

In response to question 1 (Appendix 1), 20.35% teachers said that they did not use computer or any other technological support inside classroom for language teaching. The main reason for not using technology was its unavailability. Among the 15 private universities (U1 to U15 in Appendix 3) that were surveyed, two universities (U6 and U8 in Appendix 3) had no multimedia facility for language teaching. Some universities had one multimedia for English department that was often not available. So, teachers often could not use it even if they wanted. In public universities teachers also could not use multimedia because of its unavailability or technical problems. However the teachers used multimedia and other facilities in the classroom mainly for presentation and giving lecture. Some universities' teachers used multimedia for showing videos, movie clips and for listening classes.

After analyzing the responses of question 2 (Appendix 1), it was found that multimedia was the most common facility available in the classrooms of almost every public and private university. However, only three universities (U3, U11 and U12 in Appendix 3) had multimedia facility in every classroom. The other universities had one or two multimedia for English department that were available on advance booking. Unfortunately two private universities did not have any multimedia and the universities' authority justify this lacking saying that their universities were very new. So they were still working on their infrastructure and all the modern facilities will be available in their new campus.

In response to question 3 (Appendix 1), 10 teachers (T27, T29, T38, T43, T48, T49, T55, T54, T58 and T60 in Appendix 3) out of 113 teachers (8.85%) said that they did not use computer for teaching purpose outside the classroom. They showed different reasons for not using computer like, lack of facilities in the classrooms, lack of knowledge in computer, their teaching style, students' educational background and so on. The other teachers mentioned that they used computer to download lessons, supplementary materials, books and many more but they do not know about any specific website for language teaching. Only three teachers (2.7%) used some specific websites to collect materials, for example, British council website, Cambridge website, Purdue Owl website and some others. It is to be noted here that all the teachers, who used computer and internet, did not use them to the same extent. Some teachers used them very frequently while others used them time to time.

While answering question 4 (Appendix 1), 39.82% teachers said that they usually did not face any difficulty to use computer. They claimed that they were proficient enough to pursue their academic and personal activities on computer. Among the 10 teachers (8.85%) who did not use computer also mentioned that they could use computer for typing but not for other purpose. The rest 58 teachers mentioned various problems that they faced while using computer and internet, such as, computer virus (T70, T85, T91, T94), slow PC (T10, T12, T49, T69) internet (T51, T64, T69, T87, T113) downloading audio and video files from internet (T5, T42, T47, T68, T85, T87, T92, T94, T98, T109) finding suitable websites (T30 T37, T42, T49) lack of knowledge about different features of Google (T49, T60), MS word 2007 and PowerPoint (T19, T67, T50, T88), handling various logistics like printer, scanner, projector (T48, T50, T61) converting web files into doc files (T104) and some others hardware problems. Interestingly, among these 58 teachers, 22 teachers (19.5%) said that they solved their problems with the help of other teachers or their colleagues from IT department. They also learned new things from each other and it conforms to the theory of social constructivism that asserts that learning takes place when there is social interaction among the learners (Randall and Thornton, 2001).

In question 5 (Appendix 1), teachers were asked about three e-tools (facebook, blog and podcast) of language teaching. Surprisingly, 84 teachers out of 113 or 74.34% teachers were familiar with facebook and they had their own facebook account. However, only one teacher (T103 in Appendix 3) had used it for teaching purpose but some teachers appreciated the idea of using Facebook for academic purpose. Blog was quite less popular than Facebook as 52.21% teachers (including those who knew

about Facebook) heard of blog and only one teacher (T85 in Appendix 3) used blog for teaching. In contrast to Facebook and blog, podcast was a new term to most of the teachers. Only seven (6.2%) teachers (out of 113) heard of it but none of them used it in their classroom. It is to be noted that one teacher (T72 in Appendix 3) used his personal website for teaching that was very fruitful for his language class.

Regarding question 6 (Appendix 1), 22.12% teachers believed that training or workshops on CALL were not necessary for English teachers because teachers might not have time for training and workshop, already have enough skill, were not comfortable with technology and so on. Some of them also suggested that before teachers' training, infrastructure of the universities had to be developed. 10.62% teachers' responses were quite neutral. They admitted that training would be very helpful for them but at the same time they also said that they might not have enough time for training or the authority might not be helpful to arrange training and workshop. The other 76 teachers (67.3%) agreed that training and workshop would be very supportive for them to be more competent in computer, internet and their use in language teaching. Among them, 11 teachers (T1, T7, T13, T22, T31, T35, T40, T41, T47, T70, T79 and T99 in Appendix 3) mentioned that workshop would be better than training since it requires less time and budget. However, when the teachers were asked about whether their authority would help arrange training or not, most of them indirectly avoided the question or said only the positive things.

In response to question 7 (Appendix 1), 29.20% could not give any specific suggestion on what kind of training would be fruitful for them and among them 14 teachers which is 12.4% thought that training on IT is not very important for language teachers or teachers might not have time for training. However, the other teachers gave various answers. 13.27% teachers suggested for training or workshop on different CALL software and language teaching websites. They thought that they would be benefited if they were introduced with some appropriate language websites and software and their usage. 14 teachers (12.4%) believed that IT experts and CALL experts could help English teachers to learn about recent technologies that can be used for language teaching. So they proposed to offer trainings or workshops where teachers would work collaboratively with CALL experts and IT people. The rest 51 teachers (45.13%) named of different topics for training and workshop that could be arranged for them, for example, MS Word 2007, different features of Google, different features and resources of internet, how one can prepare attractive slides using power point, troubleshooting, creating own blog and personal website, solving virus problems, introducing different websites and software for learning and teaching, different features of YouTube, hardware problems, professional development using technology, raising awareness among the authorities about CALL, training on the use of podcast and facebook and many more. Three among these 51 teachers also suggested that joint venture with other universities to CSE (Computer Science and Engineering) department would be more helpful to organize these trainings.

The findings of question 8 (Appendix 1) revealed that 54 teachers (47.8%) had no idea of the term CALL. Though they used computer and internet for teaching they

were not aware of the term and its pros and cons. 16.8% claimed that they knew about CALL very well whereas 26.55% teachers said that they heard of this term but they did not have any clear idea of it. However, 10 teachers (8.85%) confounded this term with CSE course.

From the responses of question 9 (Appendix 1), it was found that none of the universities had Self-Access Center (SAC) among 17 universities. One university's (U3 in appendix 3) teachers claimed that they had a language lab and they often took their students to the language lab to practise listening. They also advised their students to use it. The other universities did not have any SAC but three teachers admitted that having a SAC is important for students. 10 teachers among 113 teachers confused SAC with computer lab. It seemed that they did not have any clear idea about SAC.

4.6 Discussion based on central research question

The dissertation attempted to find the answers of three central research questions. The first question was formed to explore whether the universities provide necessary facilities for CALL or not. The findings showed that only three private universities provided computer and multimedia facilities in every classroom whereas four private universities had no multimedia facility for language course. The other private universities had one or two multimedia for their English department or language courses. None of the universities had self-access center for language courses. However, one university had a language lab for their students. The administrators were inquired about the existing facilities of the universities and their future plan in

71

improving their facilities. Nine administrators thought their existing facilities were enough for CALL but there is always a scope for improvement. Two administrators totally refuted the necessity of computer for language teaching. The other administrators expressed their eagerness to listen to their teachers' and students' needs in future.

The second central research question dealt with the teachers' knowledge about technology. Most of the teachers used computer and multimedia in their language classrooms except 23 teachers (which mean 20.35%) who did not have computer facility in their departments. However, the 79.65% teachers who used computer and other technology also did not use it to the same extent. Some teachers used it very frequently while others used it sometimes. They mainly used multimedia when there was a presentation session. Some teachers used it to show videos and for listening and speaking classes. Outside the classroom, the teachers depended on internet to collect lessons and other teaching materials but they did not follow any specific website. They searched in Google or Yahoo to find a suitable website. Only three teachers named some specific websites that they often used for teaching. Apart from using internet, they relied on computer only for typing and some teachers also faced problem in that. They also faced problems in downloading materials from internet, finding appropriate website, dealing with virus, handling devices like printer, scanner, projector and many other problems. Most of the teachers were not aware of different e-tools for language teaching as the findings showed that only 6.2% teachers knew about podcasts though they never used it in their classroom. Facebook and blog were quite popular among the teachers but they never imagined or encouraged to use them

for teaching because they are informal, non-academic, and distracting element for learning. Some teachers agreed that facebook and blog could be used for teaching and only one teacher had used facebook for teaching purpose. One teacher developed his personal website for teaching. So it is apparent from the findings that teachers were not very much aware of the modern amenities of technology that could make their language classes more interactive and enjoyable. Their IT skill was not emphasized or evaluated when they were recruited. It was revealed from the interviews with the administrators that none of public or private universities considered teachers' knowledge in computer before recruiting them. One administrator of a private university said that the prospective candidates had to give a multimedia presentation where their IT skill was evaluated. From the overall responses, it can be said that the language teachers were not very up to date with computer and other technologies and the administration also did not expect them to be tech-savvy.

To make the teachers comfortable with using computer and technology, there is no alternative to training and the third and last research question dealt with this issue. In this regard, 77.88% teachers believed that training is necessary for them to develop their IT skill. Training will help them to understand the advantages of CALL and to know the use of different CALL software and e-tools. 17.7% teachers preferred collaborative training or workshop program where the IT experts or CALL experts would be involved. They also recommended to work collaboratively with other universities. They thought that this type of training session would be more practical. After analyzing all the data, the following suggestions for training and workshop were found, recommended by 70.8% teachers—

1. Advantages of using technology (7.4%)

2. Recent technologies for language teaching (4.2%)

3. How to make interactive power point slides (16.7%)

4. Different features of MS Word 2007 (3.2%)

5. Different features of Google (1.3%)

6. Various useful websites for language teaching (19.34%)

7. How to develop a website (1.06%)

8. How blog and facebook can be used for teaching (7.7%)

9. Creating blog and facebook (3.6%)

10. Podcast: what is it, its benefit and how to create (10.2%)

11. Troubleshooting (3.3%)

12. Joint ventures with IT experts (14.4%)

13. Features of different hardware like printer, projector, speaker, scanner etc. (1.9%)

14. Downloading audio and video files from internet (5.7%)

Some teachers suggested that before training the authority had to understand the necessity of it and the infrastructure of the universities also needed to be improved. However, most of the teachers were diplomatic or avoided the topic when they were questioned about their authority's role. Probably they did not want to discuss this issue in their office environment. The administrators were also very suave while talking about training. They agreed to arrange training if their teachers needed it but they personally did not feel that training would be necessary or helpful. Compared to the private universities' administrator, the administrators of public universities were more straightforward. They admitted that in public institution, it was difficult and

time consuming to initiate or change anything. So it might not be possible for them to arrange training on CALL for their teachers.

4.7 Discussion based on literature review

The findings of the first research question suggest that since the administrators did not felt the necessity of improving facilities the teachers did not get enough facilities required for computer assisted language learning. It again proves what Jones (2001) and Akbar (2005) say that awareness of the administrators is very crucial for the implementation of CALL. The theory of social constructivism also emphasizes on the role of authority as it asserts that every member of a learning community can influence the teaching and learning process (Beck and Kosnik, 2006; Geijsel, 2009; Pritchard and Wollard, 2010). Though a self-access center (SAC) is necessary for language learning none of the universities had any SAC since the teachers and administrators did not think about how SAC can enhance their students' learning process (Miller, et al. 2007).

The second research question answers that the teachers of Bangladesh are not aware of technology. They only use technology for minimal purpose and 20.35% teachers do not use computer for various reason like lack of facilities, knowledge and training. This finding conforms to Andersson's (2008) research that in developing countries like Bangladesh and Sri Lanka, dearth of trained teachers is one of the obstacles in implementing computer assisted education system. Kessler (2006) also says that teacher preparation programs forget to prepare their graduates with the necessary

knowledge of technology and the situation in Bangladesh is very similar to Kessler's (2006) finding since the teachers were not familiar with the use of e-tools like Facebook, blog and Podcast. The administration of the universities also did not expect them to be competent in using computer and other technology.

According to the theory of social constructivism, new knowledge should be provided to the teachers based on their previous knowledge (Beck and Kosnik, 2006). So providing teachers with training is important to develop teachers' professional knowledge. 77.8% teachers participating in this research also agreed with that. They believed that training on IT would help them to be proficient in using technology for teaching. The third research questions explored what kind of training would be helpful for training. 45.13% teachers suggested different types of topics and skills that can be included in the training and workshop on CALL. Their suggestion ranges from basic knowledge of computer to the sophisticated skills like creating blog, developing website, producing podcast and so on. Hirvela (2006) and Son (2002) emphasizes on these skills for teacher education.

Jones (2001) and Egbart et al. (2002) find that teachers' interest to CALL training is often impeded by their administrative and class works. The situation of Bangladesh is also quite similar to that as 12.4% teachers refuted the necessity of training due to workload. However, among the teachers who preferred training, 12.4% teachers proposed to work collaboratively with the IT experts and CALL experts. Two teachers also recommended joint venture with other universities. It seems that the

teachers in Bangladesh also prefer Vygotsky's collaborative learning through interaction since collaborative work allows learners to work in their ZPD and to relate their new knowledge with their existing knowledge (Randall and Thornton, 2001).

CHAPTER – V

CONCLUSION

5.0 Introduction

ICT technology can be of immense help to a dynamic teacher because it can enhance the dual capacity of both learning and teaching. The present Government of Bangladesh has shown a strong commitment to introduce ICT in all the fields including education. So initiating computer-assisted language program can be a successful beginning of that process. However, it is important to have trained teachers for the implementation of computer-assisted language learning (CALL) program. In Bangladesh, CALL is a quite a new concept and the teachers may not be competent enough to teach CALL program. The universities also may not provide necessary logistics required for CALL. So this dissertation aims to find the answers of following research question—

7. Do the universities provide technological support required for computer assisted language program?

8. Are the teachers tech-savvy enough to use computer in language teaching?

9. What types of training will be helpful for the teachers to conduct computer assisted language courses?

To explore the answers of these question 15 private and 2 public universities were selected randomly. Minimum six language teachers from each university were

interviewed. The interview was structured based on some questions. After collecting all the data, they were analyzed based Vygotsky's theory of social constructivism.

5.1 Summary of the findings

The findings put forward that the universities did not provide enough facilities required for CALL. Among the 17 universities, only two private universities provide computer and multimedia in every classroom and all the other universities had one or two multimedia for English department or language courses but the teachers often could not use them because of their unavailability and lack of maintenance. However, the administrators gave diplomatic answers about their infrastructure. The public universities' administrators admitted that their facilities were not sufficient for CALL program but the private universities' administration said that their facilities were adequate for the present situation.

The teachers were not competent enough in using computer and internet. 79.65% teachers used computer and internet for teaching purpose but their uses were mainly confined to typing and browsing. They faced many problems while working on computer. Most of the teachers denied the fact that facebook, blog and other social networking cites have been proved to be fruitful for language teaching in many research. 47.8% teachers had no idea of CALL and only 16.8% teachers were familiar with CALL. The other teachers heard of this term but they had no clear idea of it. 10 teachers confused CALL with CSE (Computer Science and Engineering) courses. So it can be said that the language teachers of tertiary level in Bangladesh are not up-to-

date with CALL and recent technology. The administrators also do not expect them to be tech-savvy.

Among the 113 teachers, only 5.3% teachers knew about podcast which is also an effective tool for language teaching. So it seems that training on CALL is necessary for language teachers. 77.88% teachers felt the necessity of training on CALL and 45.13% teachers proposed some topics and skills that could be included in the training courses. 12.4% teachers advised to collaborate with CALL experts and IT professional to arrange a successful training program. Though the administrators of private universities showed positive attitude towards training some teachers expressed their doubts regarding this issue. However, the administrators of public universities, in some way, said that organizing training was difficult for them.

5.2 Contribution to research

Since CALL is a new concept in Bangladesh there is hardly any research on CALL in Bangladeshi context. So this work can be a piece of literature on CALL in Bangladeshi framework. Different issues of e-learning have been discussed in this dissertation. Future researchers can take help from this thesis if they want to work on CALL and distance learning. The relation between CALL and teachers education is also emphasized in this thesis that may help the researchers interested in teacher education and teacher educators.

5.3 Practical implication

After reading this dissertation, the readers will get introduced with different e-tools and their role in language teaching and learning. The teachers can use these e-tools in their language courses. The study emphasizes on the role of university authority in implementing CALL. So the administrators will realize their responsibility if they read this research work. They will also understand teachers' expectations and problems regarding computer assisted language teaching. Some suggestions for CALL training have been proposed here. So if any university wants to organize training course for their language teachers they can think of these suggestions. The overall situation of CALL at tertiary level in Bangladesh is presented in this study. So the government and policy makers can visualize the actual scenario and take necessary steps for this situation.

5.4 Recommendations

Based on the findings, the following suggestions could be considered for the successful implementation of computer assisted language learning and teaching:

- The authorities need to rethink about the necessity of technology for language teaching.

- They can include the requirement of IT skill in their job advertisements that will encourage teachers to be IT literate.

- The teachers should propose to the authority to establish required facilities for CALL in lieu of depending on them.

5.5 Further studies

This study only focused on the universities located in Dhaka. So, further studies can be done on the universities situated outside Dhaka. This study only concentrated on the teachers' and administrators' point of view. Future researchers can include students' opinion in their research. The research focused on the necessity of teacher education and training required for computer assisted language teaching. However, according to Jones (2001), learners' knowledge and training on computer and ICT skills are also important for computer aided language courses. So, one can further research on learners' training of CALL application.

5.6 Conclusion

The critical role that computer plays in language classroom is best understood by the term Computer Assisted Language Learning (CALL) (Ehsani and Knodt, 1998). It is the use of computer and related facilities to enhance learning (*ibid*). Though CALL started its journey in 1960s based on the theory of behaviorism (Warschauer and Kern, 2000), it is quite a new dimension in Bangladeshi education. According to several researches (Jones, 2001; Kessler, 2006), successful implementation of CALL requires trained teachers and cooperation of the administrators. So this study endeavored to find out the existing facilities available in Bangladeshi universities, the language teachers' knowledge on computer technology and administrators attitude towards the execution of CALL. At the end of the study, it was found that all the universities did not provide sufficient amenities for CALL and the most of the administrators were conscious of this issue. The teachers were also not very aware of

the facilities of CALL, and they mainly use computers for typing and browsing the internet. Different e-tools of CALL (like facebook, blog, podcast and others) were unknown to them. They knew about these tools only as social networking sites and considered them informal and non-academic. However, most of the teachers agreed on the necessity of CALL training, while some teachers tried to refute the idea of training due to workload and authorities' negative attitude. When the authorities were asked about this matter, they gave mixed responses. The private universities' administrators were diplomatic in their interviews while the authority of public universities admitted that they had some problems in arranging training. The possible reason could be that the private universities run their institution like a business organization. They need to attract more students. So they will not disclose their problems or limitations. On the other hand, the public universities already have more than enough students and it is accepted that public universities will have some lacking. So they do not need to hide their negative sides. However, this study presented some ideas for CALL proposed by the teachers. Based on the findings, it can be concluded that in Bangladeshi context, computer aided language teaching will be successful only if there is coordination and understanding between the teachers and university authorities.

References

Akbar, M. S. (2005). E-learning in developing countries: Challenges and opportunities Bangladesh perspective. *Proceedings of the Second International Conference on E-learning for Knowledge-Based Society*. August 4-7, Bangkok.

Andersson, A. (2008). Letters from the field: E-learning students change of learning behavior in Sri Lanka and Bangladesh. In Williams, R. and Remenyi, D. (Eds.). *The proceedings of the 7th European conference on e-learning*. Pp. 29-37. UK: Academic Publishing Limited.

Anwar, B. (2006). *Shikkha Babosthapona Bishoyadi*. Dhaka: Ebong Porkashoni.

Austin, C. (October 3, 2007). Global access through the global language. *The Daily Star*. Retrieved from http://www.thedailystar.net/newDesign/news-details.php?nid=6349

Bangs, P. and Cantos, P. (2004). What can computer assisted language learning contribute to foreign language pedagogy. *International Journal of English Studies-IJES*, Vol. 4 (1), 221-239.

Barlett-Bragg, A. (2003). Blogging to learn. *Knowledge Tree E-journal*. Retrieved from http://knowledgetree.flexiblelearning.net.au/edition04/html/blogging_to_learn.html

Bax, S. (2003). CALL – Past, Present and Future. *System*, 31, 13-28.

Beck, C. and Kosnik, C. (2006). *Innovations in Teacher Education: A Social Constructivist Approach*. Albany: State University of New York press.

Bella, M. (2005). Weblogs in education. In B. Hoffman (Ed.). *Encyclopedia of Educational Technology*. Retrieved from http://edweb.sdsu.edu/eet/articles/blogsined/start.htm

Blattner, G. and Fiori, M. (2009). Facebook in language classroom: promises and possibilities. *International journal of instructional technology and distance learning*, 6(1), 17-28.

Broadribb, S., Peachey, A., Chris, C. and Westrap, F. (2009). Using Second Life at the Open University: How the Virtual World Can Facilitate Learning for Staff and Students. In C. Wankel and J. Kingsley. *Higher education in Virtual World: Teaching and Learning in Second Life* (pp. 204-218). Bingley: Emerald Publishing.

Brown, J. D. (1997). Computers in language testing: Present research and some future directions. *Language Learning and Technology*, 1(1), 44-59.

Bugeja, M. (2008). Second Thoughts about Second Life. *Education Digest*, 73(5), 18-22.

Campbell, A. P. (2003). Weblogs for use with EFL classes. *The Internet TESL Journal,* 9(2). Retrieved from http://iteslj.org/Techniques/Campbell-Weblogs.html

Carter, B. and Elseth, D. (2009). The usefulness of Second Life for language learning. In R. C. V. Mariott and P. L. Torres. (Eds.). *Handbook of Research on E-Learning Methodologies for Language Acquisition* (pp. 443-455). New York: Information Science Reference.

Chartrand, R. and Pellowe, B. (2007). ELTpodcast.com – A podcast and website for students and teachers of English language. *Proceedings of the 1ˢᵗ International Wireless Ready Symposium on Podcasting Education and Mobile Assisted Language Learning*. ISSN 1995-4557, http://wirelessready.nucba.ac.jp/eproceedings2007.html

Chun, D. M. and Plass, J. L. (2000). Networked multimedia environment for second language acquisition. In M. Warschauer and R. Kern. (Eds.). *Network-based Language Teaching: Concepts and Practice* (pp. 151-170). Cambridge: Cambridge University press.

Coffman, T. and Klinger, M. B. (2007). Utilizing virtual world for education: The implication for practice. *International Journal of Human and Social Science*, 2(1), 29-33.

Dudeney, G. and Hockly, N. (2007). *How to Teach English with Technology*. Essex: Pearson Longman.

Eastment, D. (2005). Blogging. *ELT Journal*, 59(4), 358-361.

Eaton, S. T. (2010). How to use Skype in ESL/EFL classroom. *The Internet TSL Journal*, 16(11). Retrieved from http://iteslj.org/Techniques/Eaton-UsingSkype.html

Ebsworth, M. E., Feknous, B., Loyet, D. and Zimmerman, S. (2004). Tape it yourself: Videotape for teacher education. *ELT Journal*, 58(2), 145-154.

Egbart, J., Paulus, T. and Nakamichi, Y. (2002). The impact of CALL institution on language classroom technology use: A foundation for rethinking CALL teacher education. *Language Learning and Technology*, 6 (3), 108-129.

Ehsani, F. and Knodt, E. (1998). Speech technology in computer assisted language learning: Strengths and limitations of a new CALL paradigm. *Language Learning and Technology*, 2(1), 54-73.

Erban, T., Ban, R. and Castaneda, M. (2009). *Teaching English Language Learners Through Technology*. New York: Routledge.

Eslami-Rasekh, Z. (2005). Raising the pragmatic awareness of language learners. *ELT Journal*, 59(3), 199-208.

Fotos, S. and Browne, C. (2004). The development of CALL and current options. In S. Fotos and C. Browne. (Eds.). *New Perspective on CALL for Second Language Classroom* (pp. 3-12)*.* New Jersey: Lawrence Erlbaum Associates.

Gardner, D. and Miller, L. (1999) *Establishing Self-Access Center*. Cambridge: Cambridge University Press.

Geijsel, F. P., Sleegers, P., Stoel, R. D. and Kruger, M. L. (2009). The effect of teacher psychological and school organizational and leadership factors on teachers' professional learning in Dutch schools. *The Elementary School Journal*, 109(4), 406-426.

Gesche, A. (2009). Adapting To Virtual Third Space Language Learning Futures. In R. C. V. Mariott and P. L. Torres. (Eds.). *Handbook of Research on E-Learning Methodologies for Language Acquisition* (pp. 524-538). New York: Information Science Reference.

Godwin-Jones, R. (2003). Emerging Technologies: Blog and Wikis: Environment for Online Collaboration. *Language Learning and Technology*, 7(2). 12-16. Retrieved from http://llt.msu.edu/vol7num2/emerging.

Green, C. and Tanner, R. (2005). Multiple intelligences and online teacher education. *ELT Journal,* 59(4), 312-321.

Gunduz, N. (2005). Computer Assisted Language (CALL). *Journal of Language and Linguistic Studies*, 1(2), 193-214.

Hirvela, A. (2006). Computer-mediated communication in ESL teacher education, *ELT Journal*, 60(3), 233-241.

Holtman, L. (2009). Using Wikis in the teaching of a short course on history and philosophy of science. *International Journal of Instructional Technology and Distance Learning*, 6(1), 29-37.

Horvath, J. (2009). Hungarian students' blog in EFL: Shaping language and social connection. *TESL-EJ*, 12(4). Retrieved from http://www.cc.kyoto-su.ac.jp/information/tesl-ej/ej48/int.html

Hossain, I. (2010). *Shikkha Babosthapona Shomondhio Bisoyadi*. Dhaka: Law Book Pavilion.

Islam, M. T. and Selim, A. S. M. (2006a). Current status and prospect for e-learning in the promotion of distance education in Bangladesh. *Turkish Online Journal of Distance Education-TOJDE*, 7 (1), Retrieved from http://tojde.anadolu.edu.tr/tojde21/articles/islam.htm

Islam, M. T. and Selim, A. S. M. (2006b). Information and Communication Technology for the promotion of open and distance learning in Bangladesh. *Journal of Agriculture and Rural Development*, 4(1), 35-42

Jones, J. F. (2001). CALL and Responsibilities of Teachers and Administrators. *ELT Journal*, 55(4), 360-367.

Kasper, G. and Rose, K. (2003). *Pragmatics development in a second language*. Oxford: Blackwell.

Kavaliauskiene, G., Anusiene, L. and Maziekiene, V. (2006). Weblogging: Innovation for Communication in English. *Electronic Journal of Foreign Language Teaching*, 3(2), 220-233.

Kern, R. and Warschauer, M. (2000). Theory and practice of networked-based language teaching. In M. Warschauer and R. Kern. (Eds.), *Network-based Language Teaching: Concepts and Practice* (pp. 1-19). Cambridge: Cambridge University Press.

Kessler, G. (2006). Assessing CALL Teacher Training: What are we doing and what could we do better. In P. Hubbard and M. Levy. (Eds.). *Teacher Education in CALL* (pp. 23-44). Philadelphia: John Benjamin.

Khan, H. R. (2005). Perception of trainee teachers: Implication for effective teaching of English. *Stamford Journal of English*, 1 (summer 2005), 119-130.

Kluge, S. and Riley, L. (2008). Teaching in Virtual Worlds: Opportunities and Challenges. *Issues in Informing Science and Information Technology*, 5. Retrieved from http://proceedings.informingscience.org/InSITE2008/IISITv5p127-135Kluge459.pdf

Knobel, M., Lankshear, C., Honan, E. and Crawford, J. (1998). The weird world of second language education. In I. Snyder. (Ed). *Page to Screen: Taking Literacy into the Electronic Era* (pp. 21-52). London: Routledge.

Lai, C. and Kritsonis, W. A. (2006). The advantages and disadvantages of computer technology in second language acquisition. *Doctoral Forum*, 3(1).

Lee, M.J.W., McLoughlin, C. and Chan, A. (2007). Talk the talk: Learner-generated podcast as a process for knowledge creation. British Journal of Educational Technology. 39(3), 501-521, doi: 10.1111/j.1467-8535.2007.00746.x

Lee, K. W. (2000). English teachers' barriers to the use computer-assisted language learning. *The Internet TESL Journal*, 6(12), Retrieved from http://iteslj.org/Articles/Lee-CALLbarriers.html

Leffa, V. J. (2009). CALL as Action. In. C. V. Mariott and P. L. Torres. (Eds.). *Handbook of Research on E-learning Methodologies for Language Acquisition* (pp. 39-52). New York: Information Science Reference.

Levy, M. (2008). Effective Use of CALL Technologies: Finding the Right Balance. In R.P Donaldson and M.A. Haggstrom. (Ed.). *Changing Language Education Through CALL* (pp. 1-18). New York: Routledge.

Levy, M. (1997). *Computer-Assisted Language Learning: Context and Conceptualization*. New York: Oxford University Press.

Malcolm, D. (2004). Why should learners contribute to self-access center. *ELT Journal*, 58(4), 346-354.

Mazer, J. P., Murphy, R .E., & Simmonds, C. J. (2007). I'll see you on "Facebook": The effects of computer-mediated teacher self-disclosure on student motivation, affective learning, and classroom climate. *Communication Education*, 56(1), 1-17.

Miller, L., Shuk-Ching, E. T. and Hopkins, M. (2007). Establishing a self-access center in secondary school. *ELT Journal*, 61(3), 220-227.

Nagel, P. S. (1999). Email in the virtual ESL/EFL classroom. *The Internet TSL Journal*, 5(7), retrieved on September 23, 2011 from http://iteslj.org/Articles/Nagel-Email.html

NCATE. (2008). Professional standards for the accreditation of teacher preparation institutions. Retrieved from http://www.ncate.org/Standards/NCATEUnitStandards/tabid/123/Default.aspx

O'Sullivan, P. B., Hunt, S. K., & Lippert, L. R. (2004). Mediated immediacy: A language of affiliation in a technological age. *Journal of Language and Social Psychology*, 23, 464-490.

Patra, C. C., Alam, M. Z. and Sobhan, M.A. (2010). Wimax Network Deployment for ICT Based E-Learning in Bangladesh: Challenges and Recommendation. *International Journal of Information System and Telecommunication Engineering, 1(1)*, 39-46.

Pellettieri, J. (2000). Negotiation in cyberspace: The role of chatting in the development of grammatical competence. In M. Warschauer and R. Kern. (ed.). *Network-based Language Teaching: Concepts and Practice* (pp. 59-86). Cambridge: Cambridge University press.

Pouezevara, S. L. and Khan, R. (2007). Learning communities enabled by mobile technology: A case-study of school based in-service secondary teacher training in rural Bangladesh. *Technical Assistance Consultant Report*. Project no. ADB TA, 6278-REG.

Pozzobon, C. (2008). Podcast and Literature. *Entre Lenguas*, 13, 111-115.

Pritchard, A. and Wollard, J. (2010). *Psychology for Classroom: Constructivism and Social Learning*. New York: Routledge.

Quader, D. A. (2005). Teachers training for teachers of English: A project of National University. *Journal of the Institute of Modern Language*, 17 and 18, 1-27.

Rahman, A. (1998). English teaching in Bangladesh: Problems and Prospects. *Journal of the   Institute of Modern Language*, 8, 95-101.

Randall, M. and Thornton, B. (2001). *Advising and Supporting Teachers*. Cambridge: Cambridge University Press.

Schewinhorst, K. (2002). Evaluating tandem language learning in the MOO: Discourse repair strategies in a bilingual internet project. *Computer Assisted Language learning*, 15(2), 135-145.

Sherblom, J. C., Withers, L. A. and Leonard, L. G. (2009). Communication challenges and opportunities for educators using second life. In C. Wankel and J. Kingsley. (Eds.) *Higher Education in Virtual World: Teaching and Learning and in Second Life* (pp. 29-46).. Bingley: Emerald Group Publishing Ltd.

Simpson, J. (2002). Computer-mediated Communication. *ELT Journal*, 56 (4), 414-415.

Smythe, S. and Neufeld, P. (2010). "Podcast Time". Negotiating digital literacies and communities of learning in amiddle years ELL classroom. *Journal of Adolescent and Adult Literacy*. 53(6), 488-496, doi: 10.1598/JAAL.53.6.5

Soares, D. A. (2008). Understanding class blogs as a tool for language development. *Language Teaching Research*, 12(4), 517-533.

Son, J. B. (2002). Online discussion on a CALL course for distance language teachers. *CALICO Journal*, 20(1), 127-144.

Sotillo, S.M. (2000). Discourse function and syntactic complexity in synchronous and asynchronous communication. *Language Learning and Technology*, 4(1), 82-119.

Stuzman, F. (2006). An Evaluation of Identity-sharing Behavior in Social Networking Communities. *iDMA Journal*, 3(1). Retrieved from http://www.units.muohio.edu/codeconference/papers/papers/stutzman_track5.pdf

Sultana, S. F. (2005). Towards organizing a teacher development movement: Bangladesh perspective. *Stamford Journal of English*, 1, 69-76.

Swertz, C., Schultz, R. and Toifl, K. (2009). Language Teaching in Live Online Environments. In R. C. V. Mariott and P. L. Torres. (ed.). *Handbook of Research on E-Learning Methodologies for Language Acquisition* (pp. 509-523). New York: Information Science Reference.

Taylor, R. and Gitsaki, C. (2004). Teaching well and loving IT. In S. Fotos and C. Browne. (Eds.). *New Perspective on CALL for Second Language Classroom* (pp. 131-14). New Jersey: Lawrence Erlbaum Associates.

Timucin, M. (2006). Implementing CALL in an EFL Context. *ELT Journal*, 60(3), 262-271.

Veer, E. A. V. (2010). *Facebook: The Missing Manual*. Sebastopol: O'Reilly Media.

Vygotsky, L. (1978). *Mind in Society: The Development of Higher Psychological processes*. Harvard: Library of Congress.

Warschauer, M. (1996). Comparing face to face and electronic discussion in second language classroom. *CALICO Journal*, 13(3), 7-26.

Webster, L. and Murphy, D. (2008). In Kwan, R., Fox, R., Chan, F. T. and Tsang, P. (Eds.). *Enhancing Learning through Technology: Research on Emerging Technologies and Pedagogies* (pp. 1-16). London: World Scientific.

Weininger, M. and Shield, L. (2001). Orality in MOO: Rehearsing Speech in Text: A Preliminary Study. In K. Cameron. (Ed.). *CALL—The Challenge of Change* (pp. 89-96). Exeter: Elm Bank Publication.

Yasmeen, S. (2005). Theoretical approaches to teacher education and supervision. *Harvest*, 20, 111-120.

Zhao,Y. (2003). Recent developments in technology and language learning: A literature review and meta-analysis. *CALICO Journal*, 21(1), 7-27.

Appendix – 1

(For teachers)

1. Do you use computer in the classroom for English language teaching? How?

2. What kind of technological/logistic supports do you have in your classrooms?

3. Do you use computer for collecting materials or any other purpose regarding teaching?

4. Do you face any problem while using computer or other logistics?

5. Do you have any idea of podcasts, blogs, facebook and how they can be used for language teaching?

6. Do you feel the need of any kind of training or workshop on using computer? (creating blog, website)

7. What kind of training or workshop will be helpful for the teachers to introduce them with CALL?

8. Is there any course on CALL or CALT in your university?

9. Is there any self access center or language lab in the university?

Appendix – 2

(For administrators)

1. Do you think that your universities' infrastructure is adequate for CALL? Please explain your opinion.

2. If the teachers demand for more logistic support for computer assisted language course, will the university fulfill that demand? Why or why not?

3. Do you emphasize on computer literacy while recruiting teachers for English department? What are the skills you focus?

4. Do you provide any training to your English teachers to improve their computer skill?

5. If you find that the teachers will perform better after training, will you be interested to arrange any kind of training for the teachers?

Appendix 3 – Reponses of the teachers of private and public universities

University (U)	Teachers (T)	Question 1	Question 2	Question 3	Question 4	Question 5	Question 6	Question 7	Question 8	Question 9
U 1	T1	Use computer very often in the classroom for presentation or showing slides.	Multimedia and internet but not in all classrooms.	Collect materials from internet but no specific website or software. Create website with the help of IT officer for the students.	Can use the facilities properly without any problem.	No idea of podcast but has own blog and Facebook account. Never thought of how these can be used for language teaching.	Day long workshop will be more effective then training.	Make the teachers aware of different software and websites. The university is very much helpful to teachers.	CALL is a new term to him.	They do not have any SAC.
	T2	Use computer very often in the classroom for presentation or showing slides.	Multimedia, OHP but not in all classrooms. Sometimes they are not available since there are only two projectors in the department. No internet in the classrooms.	Use computer and internet to collect and prepare materials based on students' level but no specific websites.	Does not face any problem in using computers or internet.	Heard of podcasts but never use them in class. Blog and facebook can be used for teaching language. Has own blog.	Training and workshop are always encouraged.	In-house training, language-experts, joint ventures with other universities, send teachers for training, bring in the companies who are experts in language software, send teachers to CALL conferences.	Know about CALL. .	No idea of the facilities of SAC.
	T3	Use computer in classroom but it is not very fascinating.	Tape recorder, projectors need to be booked beforehand.	Software for pronunciation, Tense busters to teach tense, downloads materials often.	Usually do not face any problem. Discuss with colleagues if there is any problem.	Appreciate blog or Facebook to use but it must be outside the classroom. No idea of podcast.	Week long training is enough at the initial level.	IT experts can be involved. The university will cooperate for workshop.	Planning to offer course on CALL.	The process of establishing SAC is going on.
	T4	Use computer especially for teaching tense.	Multimedia, projectors but not in every	Download videos from YouTube and	Very much accustomed to using computer	Blog and facebook are not academic. No	Training is highly appreciated.	Introducing different language	Familiar with the term CALL.	No SAC.

93

			classroom.	also use podcast. Often use ESOL Material to prepare materials.	and other facilities.	knowledge about podcast.		teaching sites, how they can create own websites for teaching, involve IT expert to make teachers aware of new technologies		
	T5	Sometimes use computer in the classroom for presentation	Only multimedia and projectors but sometimes not available if two teachers give booking at the same time	Search in Google for materials, no specific websites.	Usually do not face problem in using MS word or PowerPoint, but sometimes face problems in downloading.	Not sure about how blogs or facebook can be used. Heard of podcast for the first time.	For English teachers, training is not required.	No suggestion. If the teachers suggest any training the university will help.	No idea of CALL.	No SAC
	T6	Sometimes use computer but most of the times course book	Multimedia and projector for presentation	Sometimes download lessons but that is very rare.	Do not face any problem	Never think of using them for teaching. No idea of podcast.	Hardly have time for training.	No suggestion	Heard of CALL but do not have clear idea.	No SAC
	T7	Use computer very often for presentation.	Only multimedia and projectors but sometimes not available if two teachers give booking at the same time	Collect materials and videos from internet.	Do not face any problem	Do not think that these will be effective	Training is always good but workshop would be better to learn within short time.	IT experts can be involved.	Know about CALL.	The process is going on.
U2	T8	Use computer for listening, class lecture,	Multimedia in some classroom.	Different websites to collect	Do not face any problem. If face any problem share it with other colleagues	Do not think of using them.	Already have that background so training is not important	No suggestion.	No knowledge about CALL.	Confuse with Computer lab.
	T9	Use computer for listening and speaking.	No net connection but multimedia.	Download materials but no specific	Do not face any problem.	No idea of podcasts.	There should be training and workshops.	Discussion with the CALL experts and the	No idea of CALL.	No SAC

			website. Adapt them according to students' level. No software.				teachers who use computers. The authority may help.		
T10	Have to use computer since the curriculum demands so.	Multimedia, overhead projector but not net connection.	Download materials, exercises and videos.	Usually do not face any problem but sometimes the machines do not work.	No idea of podcast. Familiar with blog and facebook but never used for teaching.	Long training won't be possible but seminar or workshop will be good.	Specific websites or software can be discussed. The university may help but teachers are encouraged to do it on their own.	Confound with CSE course.	No SAC
T11	Use computer for presentation.	Multimedia and overhead projector.	Collect materials especially for reading.	Very much used to use computer so do not face any problem.	No idea of how these can be used for teaching.	Training will be very helpful since English teachers are not aware of technology.	No suggestion.	No idea of CALL.	No SAC
T12	Use computer for listening and speaking.	Multimedia, overhead projector but not net connection.	Sometimes collect materials but not very frequently	Sometimes face problem with the machines but not in using.	Blog can be used for writing but not sure about facebook. No idea of podcast.	Training is necessary.	Teachers can be introduced with podcasts, facebook and blogs and their use.	No idea of CALL.	No SAC
T13	Use computer for presentation.	Multimedia and overhead projector.	Sometimes collect materials but mainly depend on course book.	Do not face any problem. If there is any problem, colleagues can help.	Blogs and facebook won't be very effective since students use them for chatting.	Workshop and seminar will be better than training.	Teacher can be made aware of recent technologies like podcast.	Confound with CSE course.	No SAC
T14	Use computer for presentation.	Multimedia and overhead projector.	Search in Google for materials, no specific websites.	Do not face any problem	No idea of how these can be used for teaching.	Training, workshop and seminar will be helpful	Some specific websites or software can be discussed.	No idea of CALL.	No SAC
T15	Use computer	Multimedia and	Use computer	Can use the	Blog or Facebook	Training will be	No specific	No idea of	No SAC

95

		very often in the classroom for presentation or showing slides.	internet but not in all classrooms.	and internet to collect and prepare materials based on students' level but no specific websites.	facilities properly without any problem. Sometimes take help from colleagues.	may not be effective for teaching. No idea of podcast.	helpful.	suggestion.	CALL.	
U3	T16	Internet and power point slides	Multimedia facilities in all the classroom	Use internet to collect materials.	Do not face any problem. Take help from colleagues for any problem.	Heard of blog and facebook but no idea of podcast. No idea of how these can be used for language teaching.	Training, seminar, workshops are very important especially for the teacher who do not have ELT background.	THT seminars can be arranged where CALL experts from other universities will help us.	No course on CALL	Have a language lab.
	T17	Mainly power point slides to give lecture.	Multimedia facilities in every classroom.	Use Internet to download books and other materials.	Usually do not face any difficulty.	No idea of podcast and blog. Facebook is informal for classroom.	Training and workshops are always helpful.	Seminars on CALL software can be arranged.	No course on CALL.	A language lab is there.
	T18	Always use computer especially for listening and speaking class.	Multimedia facilities in every classroom.	Go through different websites for audio and video materials.	Never face any problem.	Heard of them but never think of using them in classroom.	Training would be better for all teachers.	Collaborative work with IT experts will be helpful.	Confuse it with CSE course.	They have a language lab.
	T19	Have to use computer for lecturing and taking presentation.	Multimedia facilities in every classroom.	Always browse internet to collect materials and also to enrich own knowledge.	Sometimes face difficulty in using MS Office 2007.	Blog and facebook are not useable in the classroom.	Whatever knowledge they have is enough for language teaching.	No suggestion.	No course on CALL.	Sometimes use language lab for listening class.
	T20	Use power point slides mainly and sometimes internet to show anything from net.	Multimedia facilities in every classroom.	Internet	Usually do not face any trouble.	Do not have much idea.	Training will be of great help for English language teachers. But they can also	Different software and websites can be introduced to the teachers.	No course on CALL.	Encourage students to use language lab.

							help each other.			
	T21	Use power point slides but not internet.	Multimedia facilities in every classroom.	Internet	Sometimes find it difficult to download videos. Consult with the IT experts.	Heard of blogs and facebook but never use that for teaching. No idea of podcast.	Strongly recommend training and workshops.	How videos can be used in classroom to enhance critical thinking.	No course on CALL.	Use language lab for listening classes.
	T22	Power point slides and internet.	Multimedia facilities in every classroom.	Internet.	Does not find any problem.	Do not have much idea.	Training is always good but teachers always do not have time for training. So workshop is better.	Recent technologies can be introduced to teachers.	No course on CALL.	Have a language lab.
	T23	Power point slides and internet	Multimedia facilities in every classroom.	Internet.	Usually do not face any trouble	No idea of blog or podcast but facebook is very familiar. Never think of using them for teaching.	Teachers may not have time for training but seminars or workshops will be helpful.	BELTA can arrange conferences on CALL. Besides we also arrange a discussion on every Thursday.	No course on CALL.	Have a language lab but do not use it very often.
U4	T24	Do not use computer.	One multimedia for English department and available on advance booking.	Sometimes browse internet to get lessons but it is very rare.	Do not have any problem in using MS word or internet but in other cases they have.	No idea of podcast and blog but familiar with facebook.	Training is good but they also need the infrastructure before training.	How teachers can enrich themselves using technology.	No course on CALL.	No SAC
	T25	Do not use computer inside classroom except for presentation.	No multimedia in the classroom.	Often collect lessons from internet but not from any specific website.	Usually do not face problems.	Heard of blog and facebook but no idea of podcast.	Training and workshop will be very effective.	No suggestion.	Confuse it with CSE course.	No SAC
	T26	Not at all. Only suggest students to use internet.	No computer facility in the classroom.	Often download supporting materials for	Sometimes face problems but colleagues or friends can	No idea of them.	Training is necessary but having knowledge of	No suggestion.	No idea of CALL.	No SAC.

					help with that.		the subjects is more important			
	T27	Only for presentation.	No computer facility in the classroom.	Do not need to use computer except for MS word.	Usually do not face problem.	No idea of podcast but familiar with blog and facebook.	Training, workshops and seminars will be of great help.	Positive side of using technology can be discussed in seminars so that the universities invest on it.	No idea of CALL.	Confuse with computer lab.
	T28	Often use multimedia if it is available.	No computer facility in the classroom.	Mainly use books but sometimes download supporting materials for reading and writing courses.	If face problem then share with the colleagues.	Blog and facebook can be used but no idea of podcast.	A short but intensive training (CFE) was provided at the beginning of their joining.	Within the department the teachers can arrange a discussion once in a week to share their knowledge.	Confuse it with CSE course.	No SAC.
	T29	Sometimes use multimedia only if it is available.	No computer facility in the classroom.	Since there is no computer in the classroom she does not need to use computer.	Do not face any problem.	No idea of podcast. Blog and facebook are not for education.	Center for Excellence (CFE) provides training for new teachers of Stamford so they do not need any other training.	No suggestion.	Confound with CSE course.	No SAC.
	T30	It is not possible to use computer in classroom.	No computer facility in the classroom.	Try to get help from internet.	Do not have any problem in using MS word but it is difficult to find out suitable websites.	Heard of facebook and blog but never think of using them in the classroom. Never heard of podcast.	Workshop on CALL is very essential in recent days.	Joint venture with other universities, workshops on a specific tool of CALL.	No idea of CALL.	Confuse with computer lab.
U5	T31	Often use computer mainly for presentation but also for showing videos or	Multimedia, OHP,	Download lessons from internet especially from Wikipedia,	No difficulty in using the computers.	Blogs and facebook can be used for different purpose but no idea of podcast.	Training is time consuming but workshop or conferences can be arranged.	Foreign experts at CALL can be invited to conduct workshops.	No course on CALL.	No SAC.

		movies.		British council website and Cambridge website.					
	T32	Sometimes used multimedia but because of logistic problem she quits.	Multimedia but need to give reacquisition, OHP, tape recorder.	Go through websites but no specific site.	Do not face any problem.	No idea of how facebook can be used for language teaching. Podcast and blog are new terms.	Training will be helpful but it needs to focus on specific areas of CALL.	IT experts can share their knowledge about different language software.	Confound the course with the basic computer course.	No SAC.
	T33	Use multimedia, tape recorder.	Multimedia, OHP and tape recorder but available on advance booking.	Internet for material development.	No problem occurs.	Heard of podcast for the first time. Familiar with blog and facebook.	Training is not that much important. As an English teacher their knowledge is enough.	No suggestion.	Confuse it with CSE course.	No SAC.
	T34	Multimedia for presentation.	Multimedia, OHP and tape recorder but available on advance booking	Go through different websites.	Do not have any problem in using computer.	Facebook and blog are informal for teaching. No idea about podcast.	Training and workshop will be good but within the department the teachers can work for their development.	Teachers can be informed of different websites. They can also share their knowledge with their colleagues.	Heard of it but not clear idea.	Confuse it with computer lab.
	T35	Using computer is not necessary for language teaching	Multimedia, OHP and tape recorder but available on advance booking	Sometimes browse internet but no specific website.	No difficulty.	Facebook and blog can be used for academic purpose but no idea of podcast.	Workshop will be better than training since it takes less time.	Workshop on different language learning website will be effective.	No idea of this course.	Confuse it with computer lab.
	T36	Very often use multimedia to show slides and videos.	Multimedia, OHP and tape recorder. No net connection.	Always use internet for getting materials.	Hardly get any problem. Sometimes discuss with other teachers if there is any problem.	Heard of them but do not know how to use for teaching.	Training and workshop are always effective.	Different software or tools can be introduced to teachers.	It would be better if the course is offered.	No SAC.
U6	T37	Do not use	No computer or	Sometimes go	Face problem	No idea of	Training and	No suggestion	No idea of	No SAC.

	computer in language class.	other logistic support. Only white board.	through internet.	to find particular things from internet.	podcast. Blog and facebook will be effective.	workshops can be organized.	since do not proper knowledge of it.	CALL.	
T38	Do not use computer	No computer or other logistic support. Only white board.	Do not use computer except for typing.	Have little knowledge of computer.	No idea of podcast. Blog and facebook are not suitable for teaching.	Training is helpful but not important for teaching English.	No suggestion.	No idea of CALL.	No SAC.
T39	Do not use computer in language class.	No computer or other logistic support. Only white board.	Mainly use for typing and email but sometimes browse internet.	So far no problem.	No idea of podcast and blog. Heard of facebook but not for teaching.	Training will be of great benefit.	How they can find lessons and materials for language classes.	Confound it with computer course.	No SAC.
T40	Do not use computer in language class.	No computer or other logistic support. Only white board.	Often go through Google to get ideas of teaching and activities.	Do not face any problem.	No idea of podcast. Heard of blog and facebook but they cannot be used for teaching.	Workshop and seminars will be useful.	The merits of using computer can be explained to the teachers and authority.	No course on CALL and no planning for future.	Confound with computer lab.
T41	Do not use computer in language class.	No computer or other logistic support. Only white board.	Browse internet to find lessons or activities.	Face problem in browsing and finding suitable things.	No idea of blog and podcast but have own facebook account.	Workshops are very effective since teachers cannot implement what they learn from training.	Different features of Google can be introduced to teachers so that they can search properly.	No course on CALL but it would be better if it is offered.	No SAC
T42	Do not use computer in language class.	No computer or other logistic support. Only white board.	Sometimes use internet for email and searching materials.	Since she is not competent she faces many problems.	No idea of podcast. Facebook and blog are not for teaching.	Training and workshop are necessary.	Training on using internet can be organized.	No idea of CALL.	No SAC but it is necessary.
T43	Do not use computer in language class.	No computer or other logistic support. Only white board	Hardly use computer.	Not very competent in using computer.	No idea of them.	Training is very important.	Training on using MS office 2007 will be useful since he finds it very difficult to use.	No idea of CALL.	No SAC

	T44	Do not use computer in language class.	No computer or other logistic support. Only white board	Use internet to find materials for students.	Quite efficient to perform basic functions like typing, browsing.	Heard of facebook and blog but no idea of podcast.	Training, workshop and seminar are always useful.	IT experts can train teachers in using computer.	The course is not offered yet.	No SAC but it is necessary.
U7	T45	Use multimedia for listening and speaking class.	In first campus they have multimedia but not in second campus. Besides it is not always available	Collect materials from internet but modify it before using in the classroom.	At the beginning faced a lot of problem and used to feel shy. But later took help from colleagues.	No idea of podcast.	Training is really important.	Basic functions like scanning, printing, preparing attractive slides can be taught in training.	Confound with computer course.	No SAC
	T46	Use multimedia if it is available.	Multimedia but not always available.	Use internet for finding materials.	Do not face any problem.	Never think of using them in classroom. No idea of podcast.	Training is useful but not necessary for English teachers.	No suggestion.	Confound with computer course.	No SAC
	T47	Sometimes use multimedia for presentation	Only multimedia but not in every classroom.	Use internet to collect lessons,	Sometimes face problems with downloading.	No idea of how facebook or blog can be used for teaching. Never heard of podcast.	Workshops and training are crucial.	IT people can give better suggestion. They can teach the language teacher.	Know about the term.	No SAC.
	T48	Usually do not use computer	In first campus they have multimedia but not in second campus. Besides it is not always available	Sometimes browse internet materials but that is very rare.	Face problem in using logistics like printer, scanner, and projector.	Facebook should not be encouraged in the classroom and no idea of blog and podcast.	Training must be arranged for English teachers.	Training on how to use different logistics and how to solve some common problems of them.	CALL course should be emphasized.	SAC is very useful if it is utilized properly but they do not have any.
	T49	Using computer is very problematic. Availability of multimedia is also a problematic issue.	Multimedia is there but not in every classroom.	Do not need to use computer for teaching. Course book is enough.	Very weak in using technology so face a lot problem.	Know about facebook but never heard of podcast and blog.	Teachers must have training.	How teachers can use computer without multimedia support can be described.	No idea of CALL.	Get confused with computer lab.
	T50	Sometimes use multimedia for	Multimedia but no net	Use internet to download	Not very competent in	These cannot be used in classroom	Training and workshop are	No suggestion.	No idea of CALL.	No SAC

		presentation.	connection.	lessons or get ideas of teaching.	using computer. Sometimes face problems.	without necessary support.	useful.			
U8	T51	Do not use computer in classroom.	No computer or multimedia.	Sometimes browse internet to develop own teaching especially British council website.	Do not face any problem in MS word but need to learn more about power point and internet.	Have facebook account but it is not appropriate for teaching. No idea of blog or podcast.	Training will be helpful but authority should also improve the infrastructure of the university.	Teachers from CSE department can help us to learn more use of computer.	Heard of CALL but no clear idea.	No SAC
	T52	Want to use computer but always not possible because of its availability.	No computer or multimedia.	Often use internet to find materials and teaching tips.	Usually do not face any kind of problem.	No idea of podcast. Blog and facebook may not be suitable for teaching.	Need training to move with time but the infrastructure needs to be improved.	Work in collaboration with IT experts, CALL experts.	Don't know about it.	No SAC
	T53	Want to use computer but always not possible because of its availability	No computer or multimedia.	Internet to get lessons, download books and article, MS word.	Do not face any problem.	Heard of blog and facebook but never use for teaching. Podcast is a new term.	Till now training is not necessary unless they improve the infrastructure	No suggestion.	No knowledge about CALL.	No SAC
	T54	Do not use computer in classroom.	Do not have any computer or multimedia.	Do not use computer except for mail checking and typing.	Not very competent in using computer.	No idea of them.	Training is necessary with the improvement of infrastructure,	No suggestion.	No idea of CALL.	No SAC
U9	T55	Do not use computer since he is not tech savvy.	No multimedia or technological support in the classroom.	Do not use computer.	Not competent in using computer.	No idea of them.	Training can be organized for the interested teachers. They can help others later.	No suggestion.	No idea of CALL.	No SAC
	T56	Do not use computer inside classroom.	No multimedia or technological support in the classroom	Use computer for browsing, typing and entertainment.	Usually do not face any problem.	Familiar with Facebook and blog but never use for teaching. No	Training is very important.	Different CALL software can be introduced.	Heard of CALL but there is no such course.	No SAC

					idea of podcast.				
	T57	Do not use computer inside classroom	No multimedia or technological support in the classroom	Use internet to collect materials for teaching but all of them cannot be used because of poor facilities.	Do not face any problem.	Never think of using them for teaching.	Training and workshops are very important not only for teachers but also for authority.	How teachers can use internet to make the class more interesting.	Interested to know more about CALL.	No SAC
	T58	Do not use computer inside classroom	No multimedia or technological support in the classroom.	Hardly have time for using computer for other purpose.	Do not face problem in typing but not competent in other use.	No idea of podcast and blog. Familiar with facebook.	Training is important but managing time for that is tough.	No suggestion.	Heard of CALL but no clear idea.	No SAC
	T59	Do not use computer inside classroom	No multimedia or technological support in the classroom.	Often browse internet for collecting lessons and activities.	Get confused to choose a suitable website for teaching.	Facebook and blog can be used for teaching. Podcast is a new term.	Training workshops and seminars are important for teachers but they can also learn from their other colleagues.	The teachers can share their knowledge about IT among them. Training can be provided on power point and internet.	Heard of CALL but no clear idea.	Confound with computer lab.
	T60	Do not use computer inside classroom	No multimedia or technological support in the classroom.	Do not use computer for teaching purpose since she cannot use the materials for inadequate logistics.	Face problems to search things in Google.	Facebook is not suitable for teaching. No idea of blog and podcast.	Training and workshop are very important for teachers. But infrastructure is also needed.	Workshops on blog, facebook and podcast can be organized to make the teachers familiar with these.	No idea of CALL.	No SAC
	T61	Do not use computer inside classroom	No multimedia or technological support in the classroom.	Use internet very often for searching lessons and other teaching materials.	Face problems with some tools like scanning, printing, installing any software.	Blog and facebook can be used for teaching but no knowledge about podcast.	Training is very much needed to make the teachers more competent.	Training on trouble shooting will be helpful for teachers.	Interested to know more about CALL.	No SAC
U10	T62	Use multimedia	Multimedia but	Search in	Do not face	No idea of them. .	Training is not	Training on using	Heard of	No SAC

		for lecturing	no net connection. Multimedia is available on advance booking.	Google to find materials.	any problem.		necessary for English teachers.	internet in the classroom will be effective.	CALL but no clear idea.	
	T63	Power point slide for giving lecture.	Multimedia is available on advance booking.	Sometimes use internet for finding materials.	Do not face any problem.	No idea of podcast but heard of blog and facebook.	Training or workshop will be helpful but university may not arrange it.	Training on preparing attractive power point slide will help teachers.	No idea of CALL.	No SAC
	T64	Multimedia for presentation.	Multimedia is available on advance booking	Use internet very often for searching lessons and other teaching materials.	Do not face any problem in using MS word or power point but need to learn more about internet.	No idea of podcast but heard of blog and facebook.	Training or workshop will be good but teachers may not have time for training.	Training on using internet will be helpful.	No idea of CALL.	No SAC
	T65	Use multimedia for power point presentation.	Multimedia is available on advance booking	Search in Google and yahoo to find materials	Face problems in downloading materials from internet but take help from other teachers.	Facebook is very common but blog and podcast are not very popular.	Training and workshop will be helpful.	Training on using internet	Heard of CALL but no clear idea of them.	No SAC
	T66	Multimedia for presentation.	Multimedia is available on advance booking	Sometimes use internet for finding materials	Do not face problem.	Heard of blog and facebook but no idea of podcast.	Training is time consuming but workshop will be good.	Training on facebook, blog and podcast.	No idea of CALL.	No SAC
	T67	Multimedia for lecturing.	Multimedia available on advance booking.	Use internet for finding materials.	Face problem in preparing attractive power point slides.	No idea of these tools.	Training will be helpful for us but university may not arrange it.	Training on power point.	No idea of CALL.	No SAC
	T68	Multimedia for presentation.	Multimedia is available on advance booking	Browse internet for collecting.	Problem in downloading.	No idea of podcast and blog. Familiar with facebook.	Training is necessary but all the teachers may not be interested	Training in solving virus problem.	No idea of CALL.	No SAC

									in it.	
U11	T69	Multimedia for providing lecture.	Multimedia in every classroom.	Internet to find materials but no specific website.	Slow computer and internet connection.	Heard of them but never use them for teaching.	Training is very much needed and the authority is also helpful to the teachers.	To solve some common problems of computer.	Heard of CALL.	No SAC.
	T70	Power point slides and OHP.	Multimedia in every classroom but without net connection and sound system.	Search in Google.	Slow internet, computer gets hanged because of virus.	Heard of these tools but never think of using them.	Training needs a long time. Workshop would be better.	Workshop to inform about different websites for language teaching.	Very much aware of CALL	No SAC.
	T71	Multimedia for lecturing or showing any video.	Multimedia in every classroom	Browse internet to find materials. No specific website.	Usually do not face any problem.	These tools may not be effective for class.	Training is important but it should not be mandatory.	Training on troubleshooting would be helpful.	Aware of this term.	No SAC.
	T72	Multimedia for providing lecture, OHP.	Multimedia in every classroom	Follow the website of Purdue Owl for writing classes. Also use own website for teaching.	Usually do not face any problem. Share knowledge about computer with colleagues that solve many problems.	Know about these tools and use own website for teaching purpose.	Training is definitely important.	Training on making website will be helpful.	Teaching this course.	No SAC.
	T73	Multimedia for providing lecture.	Multimedia in every classroom but without net connection and sound system	Search internet for collecting materials and self development.	Do not face any problem.	No idea of podcast but familiar with blog and facebook.	Training is very essential for teachers.	Different websites for language teaching can be discussed.	Heard of CALL but have little knowledge about it.	No SAC
	T74	Multimedia for lecturing or showing any video.	Multimedia in every classroom.	Search through Google and yahoo for materials. Also download books.	Do not face any problem.	Familiar with the terms but never used in classroom	Training is helpful but English teachers do not need that much expertise.	No suggestion.	Heard of CALL.	No SAC.

	T75	Multimedia to show video and power point slides.	Multimedia projector, desktop in every classroom.	Search internet and use the appropriate material. Do not follow any specific website.	Competent enough in using computer and other technologies.	Aware of blog and facebook but never use them for teaching. No idea of podcast.	Training is always good for teachers.	Workshop on different websites of language teaching will be helpful.	Heard of CALL but have little idea of it.	No SAC.
U12	T76	Multimedia projector for showing video clip, movie and others.	PC, projector in every classroom but no sound system. Net connection is there.	Always use internet to search materials.	Enough proficiency in using computer.	No idea of podcast but blog and facebook can be used for teaching.	Training is helpful but teachers are very busy.	No suggestion.	Heard of CALL but need to learn more about it.	No SAC
	T77	Use power point slides, projector to show videos.	Multimedia in every classroom with internet connection.	Use internet to search materials, preparing class lecture, question paper and so on.	Competent enough in handling computer and technology.	Blog and facebook are popular so they can be used for teaching. Never heard of podcast.	Training will be very beneficial and the authority is also supportive enough for teachers' development.	Workshop to introduce the teachers with the new terms of technology.	No idea of CALL.	No SAC
	T78	Often use multimedia and CD player.	Multimedia in every classroom and also internet.	Search internet to find material and also suggest students to follow some specific links.	Usually do not face any problem.	No idea of podcast. Blog and facebook can be used for teaching purpose since students actively use them.	Training is always good but teachers may not have time for that or be interested.	No suggestion.	Very much aware of the term.	No SAC
	T79	Multimedia and over head projector.	Computer and projector in every classroom with the internet.	Use internet everyday to get reading materials.	Do not face any problem but finding a suitable website takes a long time.	Aware of blog, podcast and facebook but never use them for teaching.	Workshop will be better since training is time consuming. The authority may help in organizing workshop.	Teachers can be introduced with some good websites for language teaching.	Heard of CALL.	No SAC
	T80	Multimedia	Multimedia in	Search through	Very much	Familiar with blog	Do not need any	No suggestion.	Heard of	No SAC

		projector for showing video clip, movie and others.	every classroom	Google and yahoo for materials. Also download audio and video clips.	competent in using computer.	and facebook but never heard of podcast.	training.		CALL but no clear idea of it.	
	T81	Multimedia and over head projector.	Computer and projector in every classroom with net connection.	Internet to find materials. Suggest students to follow Dave's ESL café, English Club and some other websites.	Do not face any problem.	No idea of podcast but familiar with blog and facebook.	Training is very important for language teacher.	Training on creating blog or website will be beneficial.	Aware of the term CALL.	No SAC
	T82	Multimedia and over head projector.	Multimedia in every classroom	Search through internet to get lesson plan and worksheet.	Do not face any problem.	Use blog and facebook for personal use but do not know about podcast.	Training and workshop will be of great help. The department will also help them	Teachers can be trained up for using internet.	Familiar with CALL.	No SAC
	T83	Multimedia for providing lecture.	Multimedia in every classroom with internet.	Search in Google, yahoo and Wikipedia to search materials.	Sometimes face problems when the computer is virus-infected.	Never heard of podcast but often used blog and facebook for communication purpose.	Training is always necessary for professional development.	New pieces of software that are helpful for language teaching can be introduced to the teachers.	Primary knowledge about CALL.	No SAC
U13	T84	Use multimedia when it is necessary.	Multimedia in one classroom but no net connection.	Browse internet for searching lessons and worksheet	Do not face any problem.	No idea of podcast. Never think of using blog and facebook for teaching.	Training will be helpful for teachers.	No suggestion.	No idea of CALL.	No SAC.
	T85	Sometimes use multimedia for lecturing and presentation.	Multimedia in one classroom that is available on advance booking.	Go through different websites for searching materials.	Face problem in downloading and with virus-infected computers.	Use own blog for teaching but never use facebook. No idea of podcast.	Training is definitely important.	Knowing how to solve common technical problems is important for	Familiar with CALL.	No SAC.

							teachers.		
	T86	Previously used multimedia but later stop using because of various problems.	One multimedia for English department but no net connection in classroom.	Sometimes use internet but mainly depend on course book.	Use computer for limited purpose so do not face any problem.	No idea of podcast. Blog and facebook may not be effective.	Training is not necessary.	No suggestion.	No idea of CALL.	Confound with computer lab.
	T87	Use multimedia when it is necessary.	Multimedia in one classroom	Collect materials from internet especially for reading course.	Sometimes face problems to download text from internet and because of slow net connection.	Never heard of podcast but blog and facebook can be useful.	Teachers always need training for own development.	No suggestion.	No idea of CALL.	No SAC.
	T88	Use multimedia for presentation and lecturing.	Multimedia in one classroom without internet.	Search internet to find suitable materials for learners.	Face problem in while preparing power point slides.	No idea about podcast. Blog and facebook are informal for academic setting.	Training can be arranged and the department often does that.	Workshop on preparing power point slide will be helpful for all teachers.	No idea of CALL.	No SAC.
	T89	Do not use technology since it is like an enigma.	One multimedia for English department	Use computer for typing and sometimes internet for checking email.	Face a lot of problems and consult the IT department.	No idea of podcast and blog. Only heard of facebook.	Training is not important because technology is not mandatory for teaching.	No suggestion.	No idea of CALL.	No SAC.
U14	T90	Use multimedia for lecturing along with white board and marker.	Multimedia projector and PC in some classrooms but no net connection.	Always use internet for supplementary material, checking email and so on.	Usually do not face any problem.	Often use facebook to contact students but never used blog. No idea about podcast.	Training and workshop are necessary and the department also may help in organizing that.	Training on creating FB account and blog will be good for them.	No idea of CALL.	No SAC
	T91	Use multimedia if it is necessary	Multimedia in every classroom.	Browse internet for different purpose.	For basic use, there is no problem but virus causes problem.	Never think of using blog and facebook. Never heard about podcast.	Teachers are too busy for training and the authority also may not cooperate.	Some teachers can be trained to on CALL and they can teach other teachers.	No idea of CALL.	They do not have any SAC.

	T92	Multimedia for presentation	Multimedia projector and PC in some classrooms but no net connection	Often use internet but no specific website.	Find it difficult to use internet but the other teachers often help to learn new things.	No idea of blog and podcast but aware of facebook.	Training on technology is not important for English teachers.	No suggestion	No idea of CALL	No SAC.
	T93	Use multimedia for lecturing.	Multimedia in some rooms.	Mainly use internet, nothing else.	Do not face any problem because they help each other.	Blog and facebook are quite popular but never heard of podcast.	Training should be mandatory for teachers.	Training on connecting different parts of computer like CPU, monitor, mouse and key board.	Very little idea about CALL.	No SAC in this campus but planning to establish one in new campus.
	T94	Sometimes multimedia for presentation	Multimedia projector and PC in some classrooms	Browse internet for searching lessons and worksheet	Face problem while downloading because of the text format and virus problem.	No idea of blog or podcast but facebook is very familiar.	Training is always expected.	No suggestion	Heard of CALL	No SAC.
	T95	Multimedia for providing lecture	Some classrooms are equipped with multimedia.	Always use internet but no specific website	Do not face any problem.	No idea of podcast but familiar with blog and facebook.	Training is not very important for English teachers.	No suggestion.	No idea of CALL.	Confound with computer lab.
U15	T96	Use computer and projector only for presentation.	One multimedia and PC for English department. They need to move it in different classes.	Browse internet for teaching help. Follow Dave's ESL café quite often and also other websites.	Competent enough in using computer.	Never heard of podcast but often used blog and facebook for contacting students.	Teachers need to go through continuous training.	Training or workshop on different websites is needed.	Heard of CALL but no clear idea of it.	No SAC.
	T97	Try to use technology as less as possible since it kills time.	Multimedia projector and computer in some classes	Search different websites.	Usually do not face any problem.	Facebook and blogs are not suitable for teaching. No idea of podcast.	Training can be arranged but it should not be mandatory for all teachers.	Training on podcasts can be arranged.	Never heard of CALL.	No SAC but it is necessary.
	T98	Sometimes use multimedia for	One multimedia with desktop PC	Internet has no other	Sometimes face problems	Never think of using facebook	Training is obviously	Workshop on downloading	No idea of CALL.	No SAC.

U	T									
		students' presentation.	for English department	alternatives.	in downloading but IT officers are there to help.	and blog as a teaching tool. Podcast is a new term.	necessary but the authority might not be very supportive for that.	different files from internet will be helpful.		
	T99	Sometimes use computer in the classroom for presentation and providing lecture.	One multimedia for English department.	Always browse internet.	It is difficult to download anything from YouTube.	No idea of how these tools can be used for teaching.	Workshop will be better than training since it takes less time.	Workshop on YouTube will be beneficial.	Little knowledge about CALL.	No SAC.
	T100	Do not like to use technology since it is complicated.	Multimedia projector and computer in some classes	Sometimes use internet.	IT team is there to solve the problems.	No idea of them	English teachers do not need to be IT experts.	No suggestion	Never heard of CALL.	No SAC.
	T101	Sometimes use multimedia but it is not enough. Technology should be incorporate more in language classes.	Multimedia projector and computer in some classes	Always use internet not only to download materials but also for upgrading knowledge.	Usually do not face any problem.	Facebook and blog are popular but may not effective for teaching. No idea of podcast.	Training is very essential but all the teachers and authority may not be interested in it.	Teachers need to be aware of available resources in internet.	Basic knowledge of CALL.	No SAC but it is important for language teaching.
U16	T102	Use multimedia for providing lecture but not always.	Two multimedia for English department	Often use internet for collecting materials.	Very much comfortable in using technology.	Blog and facebook can be used for teaching purpose but no idea of podcast.	Personally do not need any training.	No suggestion.	Heard of it but no clear idea.	No language lab or SAC.
	T103	Use multimedia to show slides but not every day.	Multimedia and projector.	Use internet very frequently.	Sometimes face problems but take help from the colleagues.	Blog is not common but facebook is often used for teaching purpose especially for contacting students. No idea of podcast.	Training and workshop is necessary but the department may not be interested in it.	For using multimedia, training is not necessary but for browsing websites, workshop will be helpful. However, there is less possibility of	Not familiar with the term.	No language lab or SAC.

							getting help from authority.			
	T104	Sometimes use multimedia.	Two multimedia for English department	Browse internet but no specific website.	Not any major problem except converting the web files into doc file.	Blog and facebook are very informal. No idea of podcast.	Training is very much important and the authority will also help if they are convinced.	Training on preparing power point slides is very much needed.	Heard of it but no clear idea.	No language lab or SAC.
	T105	Use multimedia very often.	Multimedia projector but no sound system.	Download materials from internet.	Elementary knowledge of computer so sometimes faces problems.	Blog and facebook may not be effective since all the students do not have access to the internet. No idea of podcast.	Feel the necessity of training but authority may not be interested.	Training on interactive power point slides is important.	Familiar with the term CALL.	No language lab but it is necessary.
	T106	Use multimedia very rarely.	Two multimedia for English department but not sound system	Often use internet for searching websites on language teaching.	Faces many problem but take help from colleagues	Blog and facebook are not appropriate for academic context. No idea of podcast.	Training can be arranged but it is not necessary for all the teachers.	No suggestion	No idea of CALL.	No language lab or SAC.
	T107	Sometimes use multimedia but it is not mandatory for teaching.	Only multimedia. No net connection or sound system.	Mainly use books for teaching purpose not computer or internet.	Not competent in using computer so find it difficult to use it.	No idea of blog or podcast but heard of facebook.	Do not feel the need of training.	No suggestion.	Never heard of CALL.	No language lab or SAC.
U17	T108	Use multimedia but not very frequently	There is one multimedia in English department.	Sometimes browse internet for worksheets.	Do not face any problem in typing and browsing but in other cases, she is not very competent.	Academia is a formal setting. So teachers should avoid informal things like blog and facebook. Never heard about podcast.	Training is always beneficial for teachers but its implementation needs a lot of formalities.	No suggestion	No idea about CALL.	No language lab or SAC.
	T109	Use multimedia only to show	Only one multimedia	Take help from internet very	Face problem in downloading	No idea about podcast. Blog and	Training is obviously	Different language	Heard of CALL but	No language

		videos if it is necessary.		often.	files especially video files	facebook can be used only if all the students have access to internet which is not possible to ensure.	helpful for teachers.	websites can be introduced and how teachers can download any file easily.	need to learn more.	lab or SAC.
	T110	Use multimedia to show movie or video clips and also for lecturing	One multimedia	Always use internet not only to collect lessons or worksheet but also to download books.	Usually do not face any problem.	Use facebook to communicate with students. There are also some groups that are used for educational purpose. Blog can be used in the same way but no idea of podcast.	Training is very much needed.	No specific suggestion but teachers need to understand the advantages of using technology	Have primary knowledge of CALL.	No language lab or SAC.
	T111	Do not use computer or multimedia. Language can be taught without technology.	One multimedia	Use internet very frequently but do not prefer to take materials from internet since they are not culturally appropriate.	Since he is not competent in using computer he faces many problems.	No idea of podcast and blog. Facebook can be used following some guidelines.	Arranging training is very difficult. Even if it is arranged all the teachers may not participate.	No suggestion	Heard of CALL but no clear idea.	No language or SAC
	T112	Use multimedia very rarely since it is not always available	One multimedia for English department.	Use computer for typing and internet for browsing.	Usually do not face any problem.	Do not know about podcast. Blog and facebook may not suitable in our context.	Training is helpful but teachers may not have time to participate in training because they are engaged in lots of things.	No suggestion	No idea of CALL	No language or SAC.
	T113	Multimedia for showing video or power point	One multimedia for English department	Search in Google for any help.	The main problem is with low speed of	Do not know about podcast. Never thought of	Training is useful but she doubts whether	How teachers can adapt materials downloaded from	No idea of CALL.	No language lab or SAC.

		slides.			internet.	using blog and facebook for teaching.	teachers of English department will be interested in IT training.	internet.		

Administrators of Universities (U)	Question 1	Question 2	Question 3	Question 4	Question 5
U1	For the current number of student and teachers it is enough. In fact it is more advanced than any other university. 1:11 ratio of computer and student.	They are always ready to invest but the teachers need to inform them what they need.	They emphasize on basic skills and also look for extra training on IT if they have.	So far they have arranged some seminars where the teachers from Oxford and Cambridge were invited but no training.	They will be happy to help the teachers but the teachers need to come up with a proposal of what they need and why.
U2	There is always scope for further improvement. But the facilities are enough to attract students.	It is already assisted by computer but still if the teachers need anything they will definitely provide it.	They do focus on teachers IT skill while recruiting.	They have yet to organize any training or workshops for teachers and it is also not necessary.	They are very conscious about teachers' need. So they will arrange training if they really need.
U3	The technological infrastructure is enough and compared to other universities they are more advanced.	The teachers are using computers to teach language so it is already computer assisted.	They focus on teachers' IT skill while recruiting.	The teachers are already using computer and technology competently but training will be arranged if teachers need.	If their performance is improved by training or workshop they will arrange it.
U4	The infrastructure is not enough for CALL. They are planning for further improvement.	At present, there is no such plan but in future the authority may think about it.	We do not emphasize on computer skill. For English teachers, we emphasize on their academic qualification.	We provide a rigorous training after recruiting the teachers that is directed by Center for Excellence (CFE). But this training is all about how to teach in the classroom.	Right now, our teachers do not need any training on ICT but in future the authority may think of it.
U5	The university's existing resources are enough for CALL.	They already have logistics support for CALL.	We do not focus on teachers' IT skill since they will teach English not computer.	There is no training session for teachers.	If the teachers propose the university will think of it.
U6	The infrastructure is not enough for CALL.	Since it is a new university they are still working on setting up logistics supports. In future the teachers will all	Teachers' IT skill is not focused but nowadays everyone is use computer.	No training has been arranged so far. At present the teachers are getting the basic supports.	In future the university will think of providing training if it is necessary.

		the facilities required for CALL.			
U7	The teachers and students are doing well with the existing infrastructure though it needs further improvement.	Computer is not mandatory for language teaching.	IT skill cannot be a requirement for recruiting English teachers.	The university does not provide any training.	If the teachers need training the university will try to help them.
U8	For language teaching, the present facilities are enough.	Language teaching has nothing to do with computer.	Teachers' IT skill is not emphasized but it is assumed that they have basic knowledge of computer as a member of this modern age.	The teachers can develop their IT skill by practising it.	If they approach the authority with their need the authority will think of it.
U9	No answer.	Planning for further improvements.	No answer	No answer	The university always cooperates with the teachers.
U10	At present the facilities are not enough but in the new campus all the modern facilities are available.	The university will be happy to invest in fruitful sectors.	Teachers' IT skill is not considered. They are recruited based on a writing test.	The department often arranges seminars for the teachers.	An in-house training can be arranged very easily if the teachers want.
U11	No answer.	It is an internal matter of the university.	It is also an internal matter.	Refuse to answer	The university always values teachers' need.
U12	The available facilities are enough for CALL.	The university is always eager to listen to teachers' and students' need.	Before recruitment, teachers need to give a multimedia presentation where their basic computer skill is tested.	The department often arranges in house training for teachers but so far they have not focused on IT.	They will obviously arrange training on IT if the teachers need it.
U13	The existing amenities are enough but there is always scope for improvement.	The teachers are already using computer and other facilities for language teaching.	Having computer skill cannot be a requirement for English teachers.	Sometimes the department organizes workshops.	In house training with the help of IT department can be arranged.
U14	The facilities are not adequate right now but in their new campus they will set up all the modern logistics.	The university is already investing in their new campus for technical facilities.	Though IT skill is not tested all the teachers are competent in using computer.	They do not provide any training but seminars are organized very often.	The university can arrange training program but the teachers actually do not need that.
U15	For English department the facilities are enough.	Teacher student interaction is more important for language teaching than technology.	IT skill is not focused for recruiting teachers.	No training is provided for teachers.	If the teachers need training the governing body will take care of that.
U16	The facilities are not enough to implement CALL.	It is not only his decision. There are other people involved in this process. Besides, budget is an	They follow a set of rules for recruitment and promotion and technology is not emphasized here. But, it is	So far no training has been provided.	It is not his sole decision. There are many formalities and bureaucracies in arranging training.

			expected that nowadays everyone has some basic knowledge in IT.		
U17	Since it is a public university faculties are not enough. They need to improve a lot to initiate computer assisted language courses.	If the teachers need more logistic they have to make a proposal to the authority and then the authority will think about it.	They mainly emphasize on academic qualification, experience and publication. IT skill is not important.	They do not provide any training because they expect that the teachers are competent enough in teaching.	It is difficult to say anything about training but day long workshops and seminars can be arranged and they often do it.