TOWARDS COMMUNICATIVE CALL: IDEAS AND STRATEGIES FOR ITS PRACTICAL IMPLEMENTATION

Syariful Muttaqin
The University of Brawijaya Malang
syaqueen@yahoo.com

Abstract

This article presents some practical applications of computer in English language teaching and learning. As computer now is getting more accessible, it should be well utilized for enhancing students' English skills. In addition, a lot of computer language laboratories have been set up in some schools. However, some of the facilities are useless because less preparation, low usability of the facility, and lack of maintenance so that the sustainability of the computer program at schools is very weak. This article explores what computer can do to help students learn English better and what teachers, students, and administrator have to do in order to achieve the English teaching and learning objectives.

Keywords: *English skills, Computer Application, learning.*

Introduction

The advance of technology should be well utilized by teachers and administrative staff of an educational institution to help improve teaching and learning process. Computer Assisted Language Learning (CALL) has been used by teachers and students to carry out teaching and learning activities set to achieve certain learning objectives. It has been argued that CALL is able to provide conditions for optimal language learning in which learners will get opportunities to interact and negotiate meaning in the target language in authentic situations, be more creative, learn in an enjoyable atmosphere, and become autonomous in learning (Egbert, Chao, & Hanson-Smith, 1999b).

At some schools in Indonesia nowadays, funds have been spent to set up a computer laboratory to boost students' achievement in learning foreign languages. However, this facility usually has not been optimally used for foreign language teaching and learning activities due to some classical problems, such as lack of information and communication technology (ICT) skills of the teaching staff, poor maintenance of the laboratory, limited knowledge of CALL, etc,. Consequently, all of those expenses used to set up the laboratory will be useless, unless careful and organized planning, maintenance, and

utilization of the tools have been developed and supported by the teachers and staff. It is, therefore, of paramount importance that the available modern facility be designed and used as an autonomous language learning centre for students. This paper proposes a number of learning activities on how computer technology facilities can be utilized in a foreign language learning setting.

Computer in Language Learning

Since its introduction to language teaching, computer has played a significant role in assisting language learning. This is due to the characteristics of computer as a tool that can be interactive, provide authenticity, facilitate creative production, give enough feedback, facilitate different learning strategies, provide good atmosphere, and support learner autonomy (Egbert, Chao, & Hanson-Smith, 1999a). Having all these requirements, the computer has a big potential to promote successful language learning.

It has been argued that interaction is crucial in any language learning since, by doing so, learners will be able to negotiate meaning which can promote second language acquisition (Krashen, 1981; Saville-Troike, 2006). In other words, it suggests that a learning process is very important in developing students' language competence. The learner's interaction can be with classmates, with the teacher, with other students in the school or in other schools, and with community members and experts (Egbert, 1999). By using computers, interaction will be promoted so that students can be involved in more collaborative learning. The interaction can be reached by the use of computer mediated communication (CMC) which is either text-based, oral or visual, synchronous or asynchronous, one to one, one to many, or many to many, learner to learner, learner to instructor, or learner to native speaker, and time and place dependent or independent (Wang, 2004). Students, therefore, can benefit greatly from using CMC academically as shown by the improvement in L2 proficiency (Leahy, 1999; Smith, 2005). In addition learners can also get advantages of using CMC in terms of intercultural understanding, more collaboration activities, and an enjoyable learning atmosphere (Sadler, 2007).

Authenticity is important in language learning since it can help learners learn language in a natural way as it is used in real-life situation not artificial one (Richards & Renandya, 2003). In CALL, authenticity can be provided for students by the use of Multiple Object Oriented domains (MOOs) or virtual reality sites; the use of e-mails (asynchronous) or videoconferencing with other learners to share ideas of the same interest in a live time (synchronous) (Johnston, 1999; Paramskas, 1999).

Meanwhile, synchronous and asynchronous interactions have different characteristics. Synchronous communication can represent real

communication among learners either between second language (SL) learners and other SL learners or SL learner and native speakers with. This type of communication has many advantages, such as having better interaction with the possibility of combining both verbal and non-verbal communication for better negotiation of meaning. Meanwhile, asynchronous communication, in which communication happens not as a real time or live, can be an advantage for the learners in terms of assuring the accuracy and content (Wang, 2004; Ware & O'Dowd, 2008)

Here, computer thus can play various roles for meaningful learning. Traditionally, computer can play a role as a learning tool, providing learners with some possibilities for word processing, grammar and spelling checking, desktop publishing, and also concordances. In addition, it can function as a tutor that provides exercises for students to do and then provides answers for the exercises or activities in various forms, such as paced reading, games, or text reconstruction. Another role is as a stimulus for students to promote more interactive discussion and critical thinking and to develop language skills such as writing or listening (Warschauer, 1996).

It is widely believed that the Web and the available CALL resources available on it are the best place for teachers or learners to find information useful for their interests (Buell, 1999). It then can provide learners the comprehensible inputs needed for language production. A study on the use of an online laboratory in the United States has shown that this availability of resources can increase the motivation and the attitude toward foreign language learning despite the anxiety experienced in the early class due to unfamiliarity on the tool (Ushida, 2005). This has been positive since motivation is one of the key principles in the success of second language learning (Lightbown & Spada, 1999; McDonough & Shaw, 2003; Richards & Renandya, 2003). Learning a foreign language thus can be designed in such a way that learners are involved in interesting and meaningful activities either using software or the Web to produce outcome which is also available for wider audience (Shield, Weininger, & Davies, 1999).

Learner autonomy is certainly a pedagogical principle by which CALL can support with various activities. This can be achieved by the control over time, pace, and the path to the goal and access to the measurement of success (Healey, 1999). Learners can play interactive games with the clear instruction for them with entertaining adventures provided with communicative role plays designed for autonomous learning, either individually or in groups (Meskill & Anthony, 2007).

Communicative CALL

Communicative language teaching is currently being used in many EFL contexts. It refers to two basic principles of communicative

activities in which the students engage in *meaningful interaction* with each other in the classroom and that the interaction involves them in *information exchange* of one kind or another (Cook, 1988). Accordingly, learners are directed toward meaningful learning with the possibility of risk taking when applying learning strategies in order to achieve communicative competence (Richards & Renandya, 2003). In addition it is essential that the CALL package should consider assumptions underlying the software in terms of-among other things-linguistic content, learning style, learner focus, program focus, classroom management, presentational scheme, activity type, feedback, control and help options and screen layout (Hubbard, 1992).

Teachers therefore should revise their roles in teaching to meet learning objectives. In the past, teachers used to play a central role to spoon feed learners to gain grammatical competence, but might be resulting in communicatively incompetent students (McDonough & Shaw, 2003). The roles of teachers now are more as facilitator, guide, or motivator toward creating meaningful learning (Egbert, 2005). The computer can accommodate these roles in an interactive way based on students' language proficiency. Furthermore, activities for students can be made receptive where learners mainly receive information via technology such as using software, or active, where learners also contribute information such as commenting on students' writing, and finally interactive where learners both send and receive information (Opp-Beckman, 1999).

A study conducted by Sullivan and Pratt (1999) revealed how students' writing was improving in terms of the use of discourse and the ability of the students to give feedback to their peers using networked computers. In addition, the role of the teacher can be minimized in order to promote autonomous learning by being able to interact with other students and utilize the technology for writing such as the word processing and available software (Huffman & Goldberg, 1987). The computer also plays a role as the tutor which provides feedback for students' problems in writing such as spelling or choice of words (Levi & Stockwell, 2006).

In teaching reading comprehension, teachers can also make the best use of the computer to provide comprehensible input for production of comprehensible output. Problems in reading comprehension teaching like speed and flexibility, unknown vocabulary, syntax and text structures can be solved by the software in which students are guided to inference skills necessary for dealing with unknown lexical items, correct recognition of anaphoric reference and predictive reading (Nyns, 1988). Another study done for English learners in Germany has shown how Web based reading is better compared to more traditional methods, as

shown by increased reading proficiency, improved skimming and scanning performance, fostered reading skills using different materials, and increased participation and motivation (Lück, 2008). However, the computer should be used more as a tool with the guidance from the teacher in order to be in line with the pedagogical approach.

In learning listening and speaking skills, students can be directed to the computer language laboratory and assigned to do listening tasks. They can work around, through, and with the computer (Egbert, 2005). The can work in listening and speaking in an integrated way around the computer, such as accessing a website *The ESL TESL Journal* on the web and select listening and speaking activities. Students can listen to English from the on-line radio programs and also download programs such as from BBC. To improve their speaking they can learn about idioms, pronunciation, and spoken grammar at *Adam Radio's English learning Fun Site* (*ELFS*). Students can also improve their reading and writing ability using computer by searching a site that provides exercises in reading and writing such as *BBC* or software based stories on compact disks (CDs and DVDs).

In several past studies, it was shown how CALL was limited in supporting speaking activities (James, 1996; Piper, 1986). It is supported also by Ahmad, et. al, (1985 cited in James, 1996) that "The type of activities which are clearly not suited to CALL at present are those which require spoken production ...". However, at present it is not the case anymore, especially with the more sophisticated technology, which facilitates audio-visual and real time communication for learners using video conferencing, or online conversation, which can provide enjoyable interaction using the target language (Meskill & Anthony, 2007; Wang, 2004; Yamada & Akahori, 2007).

However, as the computer is a rich resource for language learning, teachers can actually use role-plays or simulations to promote active speaking, but since there are varieties of software the right choice must be made by the teacher. Otherwise, it is going to be a monotonous speaking between the student and the computer with limited responses (Abraham and Liou, 1991, cited in James, 1996). Mohan (cited in James, 1996) then concludes that the limited production in speaking is due to the use of computer as the partner for speaking by the student rather than as a tool or media for student-student interaction. Therefore, with the advance of computer, such as CMC, this shortcoming of computer is gradually solved (Egbert, 2005). However, the technology will be helpful provided that the students are ready to use the technology in terms of having skill of ICT (Heift & Rimrott, 2008).

Integrating technology into language classroom

The provision of CALL is a great advantage for the academics within an educational institution. CALL with all the features should be aided to support effective learning. Egbert (2005) gives guidelines for promoting CALL within a language classroom: use technology to support pedagogical goals of the class and curriculum, use the technology as a tool, use the technology effectively, and use the technology efficiently. In order to do those, the involvement of teacher and administrator should be clear in order that the program can run for the benefit of the learners.

In utilizing computers for language learning a vast amount of software can be used in teaching all language skills. Software can play roles as a facilitator and as a tutor. In learning reading, for example, students can learn autonomously using hypertext, which allows students to explore more about the idea in the reading text. Using hypertext media students can scroll through information very quickly so that better flexibility of learning is possible.

In addition, it is of paramount important that the design of any CALL program should consider some theoretical basis upon an understanding of linguistic concepts and language learning. Then, CALL should be able to develop deep and meaningful practice. Besides, exploration of diverse strategies and roles leading to authentic language use should be taken into account. Finally, CALL should be directed toward an integrative environment meaning that there is an integration between classroom and the curriculum (Ng & Oliver, 1987).

The next part will present some practical applications of computer language laboratory in enhancing students' English language skills by the teacher, students, and administrator and technicians.

The teacher

Once the tool is ready, the users of the tool must be ready to utilize it. The key components in the successful use of CALL are: teacher, computer, and learner. The teacher can play various roles here. As a tutor or 'helpful teacher', the teacher will play a role as a contributor to the class. If the computer is seen as a supporting tool rather than as a tutor, the teacher will play a very important role because without the teacher the program will not be successful (Jones, 2001; Levi & Stockwell, 2006). The teacher is the one who is responsible for the operation of the technology to help language learners develop their language ability. Whatever roles the teacher takes, it is necessary that the teacher has enough knowledge about the computer. The teacher has to have enough computer knowledge to start a program. Among some necessary programs are *Microsoft Windows* and its applications, such as *Microsoft office*, authoring program, such as *Hot Potatoes*, LAN, and the Internet.

Some training should be provided by the department in order to help the teachers have sufficient knowledge to run the CALL in her classroom. The traditional uses of computer, such as word-processing, computing, and *PowerPoint* presentation are not enough nowadays. Teachers need to upgrade their ability to use computers for more purposes as the globalization demands communication and networking (Mitra, Steffensmeier, Lenzmeier, & Massoni, 1999).

The next thing that the teacher should do is to make sure that the software or the activities match the learning objectives. This is important because once the objectives are formulated; there should be some ways to achieve them. Using a computer should be seen as a way to achieve these. To do this, students need guidance and control because the passion of the computer with its sophisticated features can derail students focus on learning. In other words, effective and efficient use of computer can be achieved if the teacher can play his roles well.

Training students on how to work with computers is also important to do by the teacher. Although students have had basic knowledge in operating computer programs, some computer software can be quite problematic to operate, such as installation, working on the activities, etc. Therefore, the teacher really has to master how a computer program or software is running because it is going to be a waste of time if the class is suspended or delayed because the teacher cannot run a program well.

Students

It is important to always assure that the students are the centre of the learning. Therefore, in CALL, students have to be directed toward using the technology effectively.

The first thing to do is to make sure that students have the ability to use the technology. Some basic computer skills should be possessed, at least some basic skills to do word processing activity, operating software, and networking. Training can be done by the department in cooperation with the ICT centre on campus.

Next, available access must be assured. As computers are still not a cheap technology for some Indonesian students, accessibility must be taken into account. Some students might have the computer at home, but the Internet connection is maybe difficult. Therefore, most of the students should go to Internet cafes in order to access the Internet. For performing software without any network connection, students can work at home on their own computer, but to access and interact via the Internet, it is still a problem for some students.

As now mobile phones are considered accessible for almost all students in the English Department, it can be an innovative step that the mobile phones can be used to assist language learning. Mobile phones

with their high technology can be used to store some files as, such as audio podcast or other listening materials through the multimedia menu in the phone. In addition, it can be a smart alternative for learning a foreign language since it is handy and very practical to operate.

In addition, students should be helped to carry out certain tasks autonomously. Autonomous learning is giving learner freedom to explore the computer to search for any information needed by them as set by the teacher. They have to be introduced to the idea of learner autonomy and be trained to be independent in using the language. Learners can be guided to work on software available, such as *Tell Me More*, and practice speaking activities or listening activities with the computer since the computer can play as a tutor.

Administrator and Technician

The administrator here is defined as the one who helps the teacher in running CALL. His presence in the department is important because with such a big number of students, a computer language laboratory needs to be scheduled, maintained, and up graded for future sustainability. It is in line with a study conducted about the role of administrators which is very important (Timucin, 2006). This is to make sure that all learners and teachers using the laboratory can be accommodated so that the CALL programs will run effectively and efficiently.

In order to do this, the administrator has to take a role as a technician who should make sure that the language laboratory is well prepared before the semester begins. This can be done by performing some computer testing and seeing if anything needs to be fixed for the coming classes. Therefore, the administrator has to be an expert in computer who is ready to help the department to maximize the facility. The department cannot just depend on the teacher as the maintainer of the laboratory since the teacher is often busy with academic duties.

The next thing to do by the administrator is providing training for the teacher or the learners on basic computer programs related to the CALL class. He or she might compose a guideline together with the help of the teacher on how to operate the language laboratory well. This is important because the facility must be used as appropriately as the manuals say. Otherwise, a problem can occur and it can affect the whole system since the language laboratory is designed for network connection.

To make sure the CALL program run well, the laboratory must be well maintained. Therefore, an administrator has to be assigned to do this regularly. What is sometimes missing in the department is the maintenance. Poor maintenance will result in the halt of the program and that will absolutely disadvantage teachers and students. A special budget must be set by a school for this need. As electronic appliances have some

limitation and usability period, financial support must be deployed in this post for sustaining the operation of the program.

CALL for language skills learning

Computer is such a great invention for education. In foreign language teaching, computer can be used to facilitate the learning of all language skills in accordance with the teaching and learning approach. As computer is a complete instrument, I would suggest that integrated learning be applied here as the nature of language, that all skills, speaking, reading, writing, and listening, are interrelated activities.

Teaching Reading.

Using computer, the teacher can do a lot to enhance students' reading ability. Reading skill requires many language sub-skills, such as vocabulary and grammar. This can be supported by the use of the computer since the computer can provide dictionary for vocabulary and grammar software. So by clicking the program, students can get access to the reading text very easily.

However, some considerations have to be made in teaching reading skills. First, the teacher should make the best use of computer to teach reading strategies and apply them in reading activities. There are many reading strategies that learners can use, such as scanning, skimming, recognizing main ideas, inference, and finding vocabulary, etc,. Learners need to have those strategies in order to execute reading tasks. Effective use of strategies is also important, and given the fact that computer can provide many tools to access unlimited authentic materials to help reading, the strategy application practices is greatly recommended for success in CALL classes (Egbert, 2005; Lück, 2008). This once again supports the need of teachers in applying any computer technology for doing learning activities.

Another thing to do in reading class is selecting the reading materials that suit the learning objectives. Since reading materials vary and there are so many available online or in software, reading materials selection can be pivotal in determining the learners' ability in reading. The hypertext can help students to link information, which is needed to support reading comprehension. The students can be guided to use the available software, such as dictionary to search meaning. Students can also direct their reading to other texts in order to cross-check information which can help build critical reading or thinking. The teacher, however, should carefully look at the level of the students and give the reading materials little bit above their ability in order to promote comprehensible input (Krashen, 1981).

Readers also need to be taught critical thinking, not only receptive thinking. This can be done by giving opportunities for students to integrate reading skills with other skills such as speaking and writing. As the design of the computer is set to give more interactive opportunities, writing can be done through using networking available. Using MOOs or other interactive activities where multiple users can send email or communicate on-line with each other can facilitate discussion on certain topic on-line. This certainly can help learners share and strengthen their ideas and build critical thinking. Besides, collaborative learning can be implemented in integrating reading and speaking. Learners can be assigned to do reading on the selected materials or on the learners' interest and then are grouped to discuss their understanding of the text. Meanwhile, the teacher can move around the groups and provide any necessary support for achieving learning tasks. This atmosphere of the class should be made in such enjoyable way by playing music while they were discussing. By doing so, participation and motivation in reading can be increased.

Teaching Writing

The available computer resources can be used to boost students' writing ability. Writing is a skill that needs supporting skills like grammar, vocabulary, text organization, etc. The writing class should be designed by integrating the advantage of technology with the writing class.

The use of the writing software should be able to give an opportunity for students to express their ideas into written form communicatively. The idea can be realized by using the computer laboratory, not only by word processing, but also by collaboration of either learner-learner or learner-teacher. Using the networking skills students should have feedback or inputs from others during the writing process. This is important for students to know that the process is very important in creating a good communicative piece of writing. The interaction where negotiation is possible with others, learners or teacher, can help improve his or her writing.

As English is used as a foreign language, writing activity should be supported by the help of micro skills. Grammar or lexical instruction which mostly is encountered by non-native writers can be provided by the teachers using the software available or by designing web-based writing course such as *iWrite* designed by University of Toronto. On-line dictionary and grammar sites can help learners get access to the possible writing problems. Students should be guided to see how their writing has been compelling by looking at others and using the available help resources. Interaction with other learners and giving each other some

feedback will enhance language acquisition as proposed by the interactionist (Saville-Troike, 2006). So, grammar and lexical help can assist learners to be more independent in producing writing in a way that they can notice any problems in their writing, search for the solution, and reconstruct their writing themselves.

Teaching Speaking

Learning a foreign language will be effective when learners can be exposed to naturalistic and authentic situation (Cook, 2001; Lightbown & Spada, 1999; Richards & Renandya, 2003). In teaching speaking, the teacher can help students improve their speaking ability in various ways.

The available software such as *Tell Me More* can be used to facilitate independent learning, such as improving pronunciation, practicing question and answer skills, developing functional skills in English. This program is quite accessible for all learners in the computer laboratory with the guidance from the teacher. Students can work in an interactive activity with the computer since this software is designed for interactive activity.

Besides using the software available, the MOOs can be developed in the laboratory to provide students with the opportunity to interact with other students via the LAN. Students can be asked to do some activities, such as problem solving, information gap, collaborative or cooperative learning where they are engaged with others using the target language. Such enjoyable atmosphere can be created by using games, which can make students interact with others. The teacher can play as a facilitator who provides students with learning tasks and guide them toward the goal achievement.

Integrating speaking with other skills is good to develop students' speaking skill. Students can be directed first to sets of reading about certain interesting topics and then asked to discuss in groups a topic that emerges from the reading or a topic that has been set before based on the class schedule. By doing this students can get some inputs for negotiation with other students. Some other skills, such as critical thinking, rhetorical speaking, and negotiating skills can also be introduced and developed.

Teaching Listening

The advantage that CALL has to teach listening is authenticity. Students can be exposed to such an environment where they can listen and see the persons using the language. This can help learners comprehend the language since both verbal and non-verbal expression can be provided.

By using computers teacher can use a video recording of such programs, like TV news programs, films, or use the available software to

teach listening comprehension. Students can watch the TV news and then they are assigned to report what they have seen on the recording on writing. They can also be assigned to work in groups to discuss the contents of the news. This activity is done in collaborative learning so that students are involved in interaction with others. The interaction can be done in the form of writing e-mail.

As learners vary in their language ability, the teacher has to carefully select the materials that suit the students' level. Then students can be given tasks that are also suitable with the level. The teacher can design the listening activities using certain software, like *Hot Potatoes* to give students some activities in word recognition or information gap filling exercises. For higher-level students, the teacher can use VCDs of films or TV programs to be played in the language laboratory and then ask students to discuss issues related to the text.

In addition, it is now getting easier for people to receive TV programs from overseas. This can be a good resource for material development. Teachers can record programs to suit the learning objectives and then use them in the CALL classes. The selected programs can be news program, talk shows, TV advertisements, documentary programs, etc. In other words, the teacher can use software available on the market or develop his or her own listening software.

Conclusion

Computers have many useful features that can be used to facilitate communicative language teaching and learning. However, it depends on many factors, such as the computer accessibility, the users' (teachers and students) computer skills, administration involvement, and available software. It is a disadvantage if the available facility cannot be a great use for students. Therefore, the available software must be used in accordance with the learning circumstances. And it should be a challenge for the teachers to always integrate technology in language teaching since computer technology should be a great help by its ability to play roles as a tutor, a partner, and a tool in language teaching and learning.

However, the role of the teacher is still considered vital in order for the learners to utilize computers. Pedagogical considerations, such as teaching approach, methods, techniques, should be decided prior to the use of any software, websites, or other multimedia resources. In communicative language teaching, learner-centeredness has been a big issue; therefore, the available computer technology should be used for the advantage or the learners with the guidance from the teacher.

In order to maximize the available computer laboratory, it is essential now to first prepare the teachers' computer skills needed for CALL, assure that students also have the necessary skills in operating computers, make sure that the computer laboratory and the software

available are ready to use for certain learning tasks, and the last but not the least, provision of support from school authorities either financially or in upgrading the facility to assure that the technology can be useful for the students.

References

Buell, J. (1999). CALL issues: resources for CALL. In J. Egbert & E. Hanson-Smith (Eds.), *CALL environments: Research, practice, and critical issues*. Alexandria: TESOL Inc.

Cook, V. (1988). Designing CALL programs for communicative teaching. *ELT Journal, 42*(4), 10.

Cook, V. (2001). *Second language learning and language teaching* (3rd ed.). London: Arnold.

Egbert, J. (1999). Classroom practice: creating interactive CALL activities. In J. Egbert & E. Hanson-Smith (Eds.), *CALL environments: Research, practice, and critical issues*. Alexandria: TESOL Inc.

Egbert, J. (2005). *CALL Essentials: Principles and practice in CALL classrooms*. Virginia: Teachers of English to Speakers of Other Languages, Inc.

Egbert, J., Chao, C.-c., & Hanson-Smith, E. (1999a). *Computer-enhanced language learning environments: An overview*. Virginia: TESOL Inc.

Egbert, J., Chao, C.-c., & Hanson-Smith, E. (Eds.). (1999b). *Computer-enhanced Language Learning Environment: An Overview*. Virginia, USA: Teachers of English to Speakers of Other Languages, Inc.

Healey, D. (1999). Theory and research: autonomy in language learning. In J. Egbert & E. Hanson-Smith (Eds.), *CALL environments: Research, practice, and critical issues*. Alexandria: TESOL Inc.

Hubbard, P. (1992). A Methodological framework for CALL courseware development.

Huffman, D. T., & Goldberg, J. R. (1987). Using wordprocessing to teach EFL composition. *System, 15*(2), 169-175.

James, R. (1996). CALL and the speaking skill. *System, 24*(1), 15-21.

Johnston, B. (1999). Theory and Research: Audience, language use, and language learning. In J. Egbert & E. Hanson-Smith (Eds.), *CALL Environment: research, practice, and critical issues*. Alexandria: TESOL Inc.

Jones, J. F. (2001). CALL and the responsibilities of teachers and administrators. *ELT Journal, 55*(4), 360-367.

Krashen, S. D. (1981). *Second language acquisition and second language learning* Oxford: Oxford University Press.

Leahy, Christine. (1999). *E-mail as a learning tool: Construction of knowledge online.* Paper presented at the Biennial Exeter CALL Conference, The University of Exeter.

Levi, M., & Stockwell, G. (2006). *CALL Dimensions: Optional and Issues in computer-Assisted Language Learning*. London: Lawrence Erlbaum Associates.

Lightbown, P. M., & Spada, N. (1999). *How Languages are Learned. 2nd Ed.* Oxford: Oxford University Press.

Lück, K. (2008). Web-based foreign language reading: Affective and productive outcomes. *CALICO, 25*(2), 302-325.

McDonough, J., & Shaw, C. (2003). *Materials and Methods in ELT: A Teacher's Guide (Second Edition)*. Oxford: Blackwell Publishing Ltd.

Meskill, C., & Anthony, N. (2007). Learning to orchestrate online instructional conversations: A case of faculty development for foreign language educators

Computer Assisted Language Learning, 20(1), 5-19.

Mitra, A., Steffensmeier, T., Lenzmeier, S., & Massoni, A. (1999). Changes in attitudes toward computers and use of computers by university faculty. *Journal of Research of Computing in Education, 32*(1), 189-202.

Ng, K. L. E., & Oliver, W. P. (1987). Computer assisted language learning: An investigation on some design and implementation issues. *System, 15*(1), 1-17.

Nyns, R. R. (1988). Using the computer to teach reading comprehension skills. *ELT Journal, 42*, 253-261.

Opp-Beckman, L. (1999). Classroom practice: Authentic audience on the internet. In J. Egbert & E. Hanson-Smith (Eds.), *CALL Environments: Research, Practice, and critical issues*. Alexandria: TESOL Inc.

Paramskas, D. M. (1999). The shape of computer-mediated communication. In K. Cameron (Ed.), *CALL: Media, design, and application*. Lisse: Swets & Zeitlinger Publishers.

Piper, A. (1986). Conversation and the computer: a study of the conversational spin-off generated among learners of English as a foreign language working in groups. *System, 14*(2), 187-198.

Richards, J., C., & Renandya, W. A. (Eds.). (2003). *Methodology in language teaching: An anthology of current practice*. Cambridge: Cambridge University Press.

Sadler, R. (2007). Computer-mediated communication and a cautionary tale of two cities

CALICO, 25(1), 11-30.

Saville-Troike, M. (2006). *Introducing second language acquisition*. Cambridge: Cambridge University Press.

Shield, L., Weininger, M., J., & Davies, L. B. (1999). *A task-based approach to using MOO for collaborative language learning*. Paper presented at the Biennial CALL Conference, The University of Exeter.

Smith, B. (2005). The relationship between negotiated interaction, learner uptake, and lexical Acquisition in task-based computer-mediated communication *TESOL Quarterly, 39*(1), 33-58.

Timucin, M. (2006). Implementing CALL in an EFL Context. *ELT Journal, 60*(3), 9.

Ushida, E. (2005). The role of students' attitudes and motivation in second language learning in online language courses. *CALICO, 23*(1), 49-78.

Wang, Y. (2004). Distance language learning: Interactivity and fourth-generation internet-based videoconferencing. *CALL Journal, 21*(2), 373-395.

Ware, P. D., & O'Dowd, R. (2008). Peer feedback on language form in telecollaboration. *Language Learning and Technology, 12*(1), 43-63.

Warschauer, M. (Ed.). (1996). *Computer-assisted language learning: An introduction*. Tokyo: Logos International.

Yamada, M., & Akahori, Y. (2007). Social presence in synchronous CMC-based language learning: How does it affect the productive performance and consciousness of learning objectives? *Computer Assisted Language Learning, 20*(1), 37-65.