

**THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) IN THE
EFL CLASSROOM AS A TOOL TO PROMOTE L2 (ENGLISH) AMONG NON-NATIVE
PRE-SERVICE ENGLISH TEACHERS**

By

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A THESIS

Submitted to the
University of Jaén, Jaén, Spain
In partial fulfillment of the requirements
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April, 2009

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DEDICATION

My wife Angela
and my son Nicolás
for their dedication,
time and patience

ABSTRACT

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By

Jermaine S. McDougald

**The University of Jaén, 2009
Under the Supervision of Phillip Ball**

With the rapidly increasing popularity of the internet in recent years, the diversity of learning programs continue to shift and change according to the demands of society. Nevertheless, since the development of communicative skills, language learning requires social interaction between the teacher and the students and among the students themselves, the use of computers has for a long time been regarded only as a support tool with regard to certain skill areas. (Brandal, 2005).

The purpose of this research project was to define how Information, Communication and Technology (ICT) could be a complement to conventional teaching of – *New Technology for English Teaching* - course to promote L2 among non-native Pre-service English teachers. English and ICT have become essential literacy skills for a vast amount of non-native English speakers to ensure full participation in the information society, (Jung, 2006) which is directly related to the wide spread of English and ever growing technological advancements today.

This study was based on 24 Colombian Pre-service teachers at El Bosque University, a private university in Bogota, Colombia. Where the aim was to shed light on (a) students' technology ownership, usage patterns, and levels of ICT skills; (b) the relationships among learner demographic characteristics (e.g., gender, age) and ICT use and writing skills; (c) their concepts of computers, the Internet, English and learning English; and (d) socio-cultural contextual information as to their learning ICT and English. The qualitative results from the questionnaire, which contained both open-ended and closed-ended questions, revealed that ICT is definitely a complement to conventional teaching, especially when developing reading, writing and listening skills in English. It was also determined by this study that the students perceived that speaking was the only skill that was not enhanced as a result of ICT.

Finally, as a result of the findings some implications in terms of future studies in order to better understand how to adequately implement and integrate ICT into the English foreign language classroom will be discussed. So that local curriculum guidelines and pedagogy can be updated accordingly in future endeavors.

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INTRODUCTION

With the rapidly increasing popularity of the internet in recent years, the diversity of learning programs continue to shift and change according to the demands of society. Nevertheless since the development of communicative skills, language learning requires social interaction between the teacher and the students and among the students themselves, the use of computers has for a long time been regarded only as a support tool with regard to certain skill areas. (Brandal, 2005).

The purpose of this research project was to define how Information, Communication and Technology (ICT) could be a complement to conventional teaching of – *New Technology for English Teaching* - course to promote L2 among non-native Pre-service English teachers. English and ICT have become essential literacy skills for a vast amount of non-native English speakers to ensure full participation in the information society, (Jung, 2006) which is directly related to the wide spread of English and ever growing technological advancements today.

This study was based on 24 Colombian Pre-service teachers at El Bosque University, a private university in Bogota, Colombia. Where the aim was to shed light on (a) students' technology ownership, usage patterns, and levels of ICT skills; (b) the relationships among learner demographic characteristics (e.g., gender, age) and ICT use and writing skills; (c) their concepts of computers, the Internet, English and learning English; and (d) sociocultural contextual information as to their learning ICT and English. The qualitative results from the questionnaire which contained both open-ended and closed-ended questions revealed that ICT is definitely a complement to conventional teaching, especially when developing reading, writing and listening skills in English. It was also determined by this study that the students perceived that speaking was the only skill that was not enhanced as a result of ICT.

Finally, as a result of the findings some implications in terms of future studies in order to better understand how to adequately implement and integrate ICT into the English foreign

language classroom will be discussed. So that local curriculum guidelines and pedagogy can be updated accordingly in future endeavors.

PURPOSES OF RESEARCH

The general purpose of the study was to explore the use of ICT in learning English among undergraduate students in a private university in Northern Bogota, Colombia. More specifically, the current study aimed to illuminate (a) students' technology ownership, usage patterns, and levels of ICT skills; (b) the relationships among learner demographic characteristics (e.g., gender, age) and ICT use and writing skills; (c) their concepts of computers, the Internet, English and learning English; and (d) sociocultural contextual information as to their learning ICT and English.

The main objective of the current study is to define how Information and Communication Technology (ICT) can be a complement to conventional teaching in the "*New Technology for English Teaching*" which is delivered using Content Based Instruction, to promote L2 (English) among non-native Pre-service English Teachers.

As an English teacher, I am well aware of what I did not have in my crusade to learn Spanish. The difference now, is that the internet and modern technology has done a wonderful job in bringing the rest of the world together all in the convenience of your home, office or classroom. In my years of teacher training, the one thing that has been consistent is the importance of communicative language. Having worked in various language centers and English departments, there has always been a gray area regarding technology in the classroom to the extent of technology replacing teachers. Nevertheless, technology - ICT is not a replacement for teachers, but it is definitely a plus, if used correctly, in the EFL classroom.

Being in constant contact with the internet and technology in addition to having first hand knowledge at what Information, Communication and Technology can do; without a doubt it is a tremendous aid in the classroom. I discovered that through the proper use of ICT and modern technology, languages could be learned as a secondary effect. Teachers all around the world are using ICT and bringing languages and culture into the classroom. ICT is just as much or even more a communicative language. However, it is not the last resort or the only resort for language teaching, but if used properly it can be very affective in the EFL classroom.

Chapter 1 - Investigation Outline

1.1. Formulation of the problem

What are the uses of ICT in the EFL classroom in order to be used as a teaching tool to promote L2 (English) among non-native Pre-service English teachers?

1.2. Delimitation of the objectives:

1.2.1. General objective

Define how Information and Communication Technology (ICT) can be a complement to conventional teaching in the “New Technology for English Teaching¹” class (Content Based Instruction) to promote L2 (English) among non-native Pre-service English Teachers.

1.2.2. Specific objectives

1. What are the different uses (skill development) of Information and Communication Technology (ICT) in the “New Technology for English Teaching” classroom among non-native Pre-service English Teachers?
2. What are the learners’ (non-native Pre-service English Teachers) preferences (activities / tasks) when integrating ICT into the classroom?
3. According to the use of ICT, how can writing be improved?
4. How to improve the general use of ICT in the “New Technology for English Teaching” class in order enhances the learners’ experience.

1.2. Justification of the investigation

This study came as a result of students from the *Teaching Licensure Program on Bilingual Education with an emphasis in English²*, from different semesters did

¹The official name of the course is C.A.L.L., however the name was changed to “*New Technology for English Teaching*” for this study so that the name of the class in question and the concept of C.A.L.L. would be be confused.

² Licenciatura de Educación Bilingüe con énfasis en inglés

not understand what C.A.L.L. or I.C.T. really meant. They were under the impression that C.A.L.L. only used computers to “teach” English, by way of computer programs or software in a language laboratory. Furthermore the students thought that I.C.T. was only related to information technology or “Informatica” in Spanish as the students refer to this class, where they would learn about Microsoft Word, Excel, PowerPoint, etc. These doubts and worries were expressed over and over, which led me to ask “What are the uses of ICT in the EFL classroom in order to be used as a teaching tool to promote L2 (English) among non-native Pre-service English teachers?” This study was carried out with a group of 8th semester students who were enrolled in the C.A.L.L. class, which would be their first experience in really defining C.A.L.L. and I.C.T.

1.4. Limitations of the investigation

First, since the participants of this study came from one institution, they cannot be a statistical representation of Colombian university students. The findings of this study clearly demonstrated university students’ learning experiences while using ICT in the capital of Colombia in which economic, socio-cultural and educational conditions are quite different from other major cities throughout Colombia. In relation to this, it is worth describing briefly:

Colombia³ is a medium-income nation of some 44 million inhabitants. Its geography is very diverse, ranging from tropical coastal areas and rainforests to rugged mountainous terrain. Its area is about 1.14 million sq. km. (440,000 sq. mi.); about the size of California and Texas combined which makes it the fourth-largest country in South America. Ethnic diversity in Colombia is a result of the intermingling of

³ The description and data related to Colombia was taken directly from the U.S. State Department <http://www.state.gov/r/pa/ei/bgn/35754.htm>

indigenous peoples, Europeans and Africans. Today, only about 1% of the people can be identified as fully indigenous on the basis of language and customs.

Second, using self-reported questionnaires has its own weakness caused by participant's awareness of their behaviors, tendency for giving socially favorable answers, and ability to recall the past events (Johnson & Christensen, 2004; Johnson & Van de Vijver, 2003 in Jung 2006). However, it was essential to use a questionnaire for this type of investigation due to the large amount as well as variety of information that was being solicited.

Third, the lack of research and literature regarding English language education and ICT overall in Colombia was not available so it was difficult to get a better understanding of the students and ICT. Nevertheless, my in-depth review of ICT and English language education as a whole which was presented in Chapter 2, enormously helped me to better understand how other students and similar contexts function with ICT.

1.5. Antecedents of the investigation

Previous research on the subject has been limited especially in the context of Colombia, however after an exhaustive research and review there were two investigations that included relevant data close to the current study.

Jung's (2006) doctoral study titled "The use of ICT in Learning English as an International language", took place in China. The exemplary investigation showed remarkable results of undergraduate Chinese students' perception of ICT in learning English as an International Language (EIL)

The basis for Jung's investigation was the 2004 and 2005 EDUCASE Center for Applied Research (ECAR) (Caruso, Kvavik & Morgan, 2004; Kvavik, 2005;

Kvavik & Caruso, 2005in Jung 2006) which displayed outstanding findings with regard to undergraduate students' use of information communication and technology as a way to enhance their learning experience.

Jung's study took place in China where the main objective was to explore the use of ICT among 591 Chinese university students in an inland city. Jung's study aimed to answer eight major questions: (a) What kinds of information and communication technologies (ICT) do the participants in this study own and have access to? (b) How do they use information technologies for general purposes and for language learning? (c) How skilled are the students in using ICT? (d) How do learner variables (e.g., gender, class and major) relate to their information technology use and skills? (e) What are their reason(s) to learn English? (f) How do they perceive English, computers, the Internet, and learning English? (g) What are their perceived benefits of using ICT in learning English? (h) What are their perceived barriers to using ICT in learning English? The researcher used a questionnaire that included both open-ended and closed-ended questions, where quantitative and qualitative data could be collected. (Jung, 2006)

Jung (2006) concluded that the vast majority of the participants in that study perceived that both English and computers (are) tools in the learning process. The results also found that learning communicative skills in English as the major benefit of using ICT in learning English, as well as improved learning along with convenience and efficiency.

The second study by Diamantopoulos (2003) that was used also provided significant results. That study's main objective was to investigate ways in which Information Communication and Technology (ICT) could be used for the enhancement of traditional English language teaching classrooms. The investigation was titled "*A Resource Driven Instrument for the Integration of Information Communication Technologies in the EFL Curriculum and Classroom*

Practice”. Unlike, Jung’s study in China, this investigation took place in Greece. However, the bases of both studies are in-line with the current investigation, where the main objective was to define how ICT could promote English Language Teaching to Undergraduate pre-service teachers.

Diamantopoulos (2003) employed various questionnaires in order to find out the use of ICT in Greek schools in terms of teaching English as well as to discover the opinion of other colleagues as to the effectiveness of such technologies, where there were 49 participant teachers. The teachers overall, had a very good perception of ICT, knowledge as well as implementing it into their lessons. Nevertheless, the study revealed that Greek teachers favor E-groups more than face-to-face groups.

There was also a questionnaire that was given in order to collect data regarding the readiness of the institution in terms of ICT from knowledge and availability to leadership, to culture of learning and exposure. The results were positive indicating that the Greek institutions that participated in the study were prepared and ready for the different facets of ICT.

The author created a virtual learning environment called the Virtual English Classroom (VLC). The VLC is open to all and is not restricted by passwords or the like. The VLC is constantly being scrutinized by way of evaluations and ongoing research by the author.

Chapter 2 - Theoretical Framework

The purpose of this chapter is to provide a comprehensive review of and synthesis of literature and research related to the historical framework, the problems and the research questions. Throughout this section, theory as well as research will be considered based on the perspectives in order to inform the reader regarding the research practicum and its theoretical orientations. I will refer to each of the theoretical constructs separately but including some points of convergence among them to clarify the manner in which the relationship has been conceived among them. The literature review consist of four sections: (a) The Nature of Learning, (b) English as a Foreign Language (EFL) in the information age, (c) The use of ICT in Learning and Teaching, (d) Virtual Learning Environments (VLE)

2.1 The Nature of Learning

No one has ever been able to precisely define learning. Learning continues to astound many philosophers, scholars and language professionals to date. Therefore what is learning in the context of languages?

The Merriam-Webster Dictionary defines learning as such: (a) the act or experience of one that learns (b) knowledge or skill acquired by instruction or study (c) modification of a behavioral tendency by experience (as exposure to conditioning) Piaget saw learning as “an indispensable mechanism of biological beings for their survival in an environment in which they have to adapt” (Campbell, 2002 in (Damianopoulous, 2003))

Huges (2008) nicely sums up Piagets Theory of Learning as such:

- Each child builds on the previous stage of cognitive development, increasing the child's ability to solve more complex problems.
- The fundamental basis of learning was discovery. To understand is to discover, or reconstruct by rediscovery, and such conditions must be

compiled with if in the future individuals are to be formed who are capable of production and creativity and not simply repetition. *Building an Understanding of Constructivism* (2001)

- Assimilation and accommodation are two sides of adaptation, Piaget's term for what most of us would call learning. (Boeree, 2001)
- To reach an understanding of basic phenomena, children have to go through stages in which they accept ideas they may later see as not truthful. (*Building an Understanding of Constructivism*, 2001).

Bandura, (1977) in *Social Learning Theory*, in (Kearsley, 2008) proposed that "... most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed and on later occasions this coded information serves as a guide for action." Bandura's Social Learning Theory has become one the most influential theory on learning and development, where he believed that direct reinforcement could not account for all types of learning.

Ginn, (2002) in (Boethel & Dimock, 2008) adds that laboratories, workshops and technologies that encourage interactivity such as multimedia, hypermedia and virtual reality fit in with Piagetian thought. Computer software that is strictly drill and practice does not fit in with an active discovery environment. Drill and memorization practice, often used in language schools, do not encourage creativity or discovery.

2.2 Vygotsky (Zone of Proximal Development)

Vygotsky contends that "unquestionably learning takes place before children are experienced at school through imitation and instruction concluding that there is an interrelation between development and learning from the beginning of children's life. (Vygotsky, 1930)

The concept of The Zone of Proximal Development or “ZPD” was coined by Lev Vygotsky in 1978 where he maintained that the child follows the adult's example and gradually develops the ability to do certain tasks without help or assistance. Vygotsky called the difference between what a child can do with help and what he or she can do without guidance the "zone of proximal development" (ZPD). The major theme of Vygotsky's ZPD is that of social interaction playing a fundamental role in the development of cognition. (Kearsley, 2008)

2.3 Bruner (Discovery Learning)

Jerome Bruner was influential in defining Discovery Learning, which uses Cognitive psychology as a base. There are many definitions that essentially describe what Discovery Learning is; however, in its simplest form Bardin (2008), describes it as the tools and information needed to solve a problem or learn a concept are provided and the learner "makes sense" of them. He goes on further to define it as experimentation with some extrinsic intervention -- clues, coaching, as well as a framework to help learners get to a reasonable conclusion. Finally Discovery learning can be seen from another point of view which is the “expository teaching model” where the learner "discovers" what the teacher has planned for the student to discover by going through a process outlined by the teacher.

Grundman (2004) defines Discovery learning as an approach to learning that can be facilitated by particular teaching methods and guided learning strategies. That focuses on active, hands-on learning opportunities for students.

Ormrod, in (Conway 1997) says that Discovery learning is "an approach to instruction through which students interact with their environment-by exploring and manipulating objects, wrestling with questions and controversies, or performing experiments" where students are more likely to remember concepts they discover on their own. Conway, (1997) states that teachers have found that discovery

learning is most successful when students have prerequisite knowledge and undergo some structured experiences.

Discovery learning is best applied by developing instructional systems where students are able to think and work more creatively while taking on a greater role in their own learning. Another way is by increasing the use and effectiveness of discovery learning by promoting the developing of discovery learning courses, modules, laboratories and technology. (Bardin,2008) However, modern technology can now provide a virtual environment for students to explore. Simulations are another area where computer technology can support children's learning. For institutions it is less expensive (since it can be done over and over), less offensive to students and more flexible.

2.4 Inquiry Based Learning

A general definition by Jakes, et al (2002) claims that, inquiry-based learning is a process where students formulate investigative questions, obtain factual information, and then build knowledge that ultimately reflects their answer to the original question. In the basis of this research project, the factual information is obtained from Web resources. Nevertheless, there is much more involved within the inquiry-based process i.e. numerous process and thinking skills that make this type of learning a rich and meaningful experience for students. The beauty of this learning style is that students may engage in this process as individual learners, or in cooperative teams.

This approach to learning can be found in a Virtual Learning Environment (VLE) Additionally, Jakes (2002) states that the process is pliable, permitting various permutations of the process to be used effectively with all types of learners. According to the Duke University Center for Inquiry Based Learning,⁴ (2003) the

⁴ Duke University Center for Inquiry Based Learning

learning situations that students encounter with inquiry based learning, are open-ended in that they do not aim to achieve a single "right" answer. Nevertheless, students work under clear standards. The Center continues by saying that students learn to observe keenly and thoroughly and to pose questions that are answerable, in part or in whole, through some meaningful test or exploration. They engage in trial and error, and they learn to analyze and reason carefully.

2.5 English as a Foreign Language (EFL) In the Information Age

2.5.1 Background Information on C.A.L.L. (Computer Assisted Language Learning)

Technology and language learning is not new, this way of thinking has been around for more than forty-five years. C.A.L.L. (Computer Aided Language Learning) can be organized into three distinct phases which are Behaviorist CALL, Communicative CALL and Integrative CALL. (Warschauer, 1996) Although the phases are all distinct and separate in their own way, they all rely on each other in order to function. Just because one phase is created does not necessarily mean that the other phases are obsolete or should be rejected or discarded. Each one of these phases did not just soar to popularity, but as any other innovation, they become more popular and well known with time. (Warschauer, 1996)

The early phase of CALL Behaviorist came about during the 1950's and was later introduced to the community around the 1960' and 1970's. This form of CALL was based mainly on behaviorist theories of learning; which is a type of language learning consisting of repetitive drilling and practicing. The computer acted as a tutor that delivered the language instruction. One of the widely known programs during the Behaviorist era was PLATO. PLATO was a mainframe computer that ran its own special PLATO hardware to include central computers and hardware. The PLATO system consisted of vocabulary drills, brief grammar explanations and drills, and translations tests at various intervals. (Warschauer, 1996) Although the PLATO program is not around today, many other computer programs have adapted and continued to use the same rationale; as outlined listed below: (Warschauer, 1996)

- Repeated exposure to the same material is beneficial or even essential to learning
- A computer is ideal for carrying out repeated drills, since the machine does not get bored with presenting the same material and since it can provide immediate non-judgmental feedback
- A computer can present such material on an individualized basis, allowing students to proceed at their own pace and freeing up class time for other activities

In the 1970's and 1980's along with the introduction of the microcomputer and the communicative approach to learning brought about the second phase, Communicative CALL. Many language theorists believed that the drill and practice programs from Phase one did not allow for authentic communication, which brought about its demise. One of the leading advocates for this phase was John Underwood. Underwood proposed a series of premises for Communicative CALL, which were: (Warschauer, 1996)

- More focus on using forms rather than on the forms themselves;
- Grammar is taught implicitly rather than explicitly;
- Allow and encourage students to generate original utterances rather than just manipulate prefabricated language;
- Do not judge and evaluate everything the students nor reward them with congratulatory messages, lights, or bells;
- Avoid telling students they are wrong and be flexible to a variety of student responses;
- Use the target language exclusively and create an environment in which using the target language feels natural, both on and off the screen; and
- Never try to do anything that a book can do just as well.

There were a number of various CALL programs developed during this period. Many of which were centered on paced. The last phase, which concentrates on the past few years can be described as Integrative CALL: Multimedia. This phase unlike the others is based not on theory but on multimedia computers and the internet. Multimedia can be defined as simultaneous, combined use of several media at the same time such as films, slides, flashing lights and music. (Stein, 1982) The internet can be defined as a computer network consisting of a worldwide network of computer networks that use the TCP/IP network protocols to facilitate data transmission and exchange. (Freedman, 1999) There is also hypermedia, which makes the internet and multimedia even more powerful in that multimedia sources are linked together. The mouse only needs to be clicked in order to obtain the information.

Overall, the history of CALL shows us that computers can serve a variety of uses in regards to language teaching. It can be a tutor where everything that is heard has to be repeated, practice drills in order to help you perfect the language, as well as a starting point for discussions or a tool for writing and research. The last phase Integrative CALL has given

teachers access to an array of authentic information, which in itself is something that has been longed for in language classes around the world. (Warschauer 1996)

2.6 The Use of ICT in Learning and Teaching

2.6.1 ICT Defined in Language Teaching

What is ICT and how can it be used in teaching English as a Foreign Language? ICT stands for Information, Communication and Technology, which emerged in the 1980's. The acronym 'ICT' which is the combination of both terms Information and Communication, were put together in order to emphasize the merging of both technologies. This phrase is also used to describe a range of technologies in order to gather, store, retrieve, process, analyze and transmit information. (Internet Advisory Board, 2008)

However, what does each one of the words mean that make up the concept of "ICT"? Let's introduce each one of the components of ICT in order to have a clearer picture of what it means.

Technology can be defined as the process of using scientific, material and human resources in order to meet human need or purpose.

Then there is a simple definition of **Information** as 'that which can be communicated and understood', then together a basic definition of IT could be:

Information Technology is the use of information in order to meet human need or purpose.

Thus the definition of ICT came to be as follows: the use of information in order to meet human need or purpose including reference to the use of contemporary devices such as the Internet. However, in an ever-changing world of Video-phones, mobile computing, blogs, Skype and OSS perhaps we should no longer just include the Internet, but leave the definition at 'contemporary devices...?' (Freedman, 1999)

According to Nikolova (2003) in (Scheinin, 2004) numerous studies suggest that computerized media and a multimedia environment can be helpful for learning foreign language vocabulary. However, the materials in the studies have mainly been commercial or teacher-produced. Student authoring in computer-based material designed for foreign language learning has been shown to enhance vocabulary learning. It has been asserted that on-line debate is an excellent medium for generating social construction of knowledge (Fujike 2004).

According to Elia, (2007) "ICT ...plays apart in fostering intercultural competence", which is a part of learning a second or foreign language. ICT provides a variety of different approaches as well as learning styles that reinforce the material delivered in other formats. Enjoyment is very much a part of effective learning, thereby captivating learners' interest, increasing personal discovery, generating enthusiasm and the desire to learn thereby instilling an interest from within to improve the learners' motivation.

Students love working with ICT and especially using ICT an instrument to aid in the development of their language skills. Using ICT attracts them because it is challenging, yet it is apart of their everyday lives. Nevertheless, when students use ICT in the class the "... undeniable improvement of language skills and strategies related to handling information and the language through which it is conveyed in the stages of searching, analyzing and processing information", (Lanni, 2005) when mixed together along with other skills students are benefited and gain much more than what was expected. Nevertheless, due to the students' simultaneous, natural and often incidental acquisition of IT skills, that are needed in order to manage hardware and software so that various tasks are completed and problems are solved. Jarvis (1998) believes that by integrating basic IT skills in the EFL classroom, we are developing language skills and equipping learners with technology skills. The applications of these technology skills go beyond the EFL

classroom into the workplace and/or subject specific studies at colleges and universities.

Lanni (2005) list some skills and strategies involved in ICT based language activities

- Technology skills in the use of hardware and software
- Navigation skills (search, discrimination, skimming, scanning, evaluation of sources, material, types of texts, style, information)
- Choice of suitable paths inside the hypertext/hypermedia in order to find the desired results
- Definition of the characteristics of the information (origin, quality, relevance, reliability)
- Use of search engines (planning the search, devising the possible key words, choosing different types of search engines according to the purpose of the search)
- Use of the information according the pre-determined objectives and tasks
- Use of the written language as a means of communication (formal / informal) in email and chat exchange as well as blogs
- Use of the oral language as a means of communication in videoconferencing
- Use of the oral language as a means of communication while discussing, reporting, negotiating and mediating inside the class with the teacher and the other students

ICT is known to be a great source to any conventional classroom, especially when used properly and could be an asset to the foreign language classroom. Needless to say, "The Internet is a tool which has great potential in the language classroom, but its effectiveness in practice depends to a large extent on the way it is exploited by teachers and students. Your general methodology is also important." (Windeatt, Hardisty and Eastment 2000 in Lanni, 2005)

The drastic and far-reaching change in the way of thinking and behaving in terms of the internet and multimedia computers has caused drastic changes in the way the teaching and learning process takes place in the EFL classroom. Lanni (2005) points out that these resources permit teachers to make everything visible as well as more comprehensible, which in turn helps in analysing and organizing information, thereby allowing students to get in touch with different types of media,

texts, styles, and registers, which in turn improves language understanding and producing.

In closing, ICT, the internet and modern technology is on the forefront of language teaching offering teachers and students a like the opportunity to explore and even exploit English in ways that were not possible before. Students are able to use English with ICT in a very natural, realistic environment, enabling to communicate more effectively in the new language.

2.6.2 Virtual Learning Environments (VLE) Implications for Instructional Technology

Ginn (2002) claims that students not only can use multimedia to learn, but they can also use it to communicate their understanding of the subject to those around them. By taking advantage of a Virtual reality, it has the potential to move education from its mere reliance on books to experiential learning in naturalistic settings. A clear example would be, instead of having students reading about an event, they can participate in the event with simulated individuals and/or objects. This type of technology provides the students with a learning environment that encourages them to initiate and complete their own activities.

There are many different definitions as to what is a Virtual Learning Environment (VLE). However a simple definition given by JISC (2008), "A Virtual Learning Environment is a collection of integrated tools enabling the management of online learning, providing a delivery mechanism, student tracking, assessment and access to resources." These integrated tools may be one product (e.g. MOODLE, BlackBoard, WebCT) or an integrated set of individual, perhaps open-source, tools. Merriam Webster has a slightly different view of VLE's as a system that creates an environment designed to facilitate teachers in the management of educational courses for their students, especially a system using computer hardware and software, especially involving distance learning.

Nevertheless, Pimentel (1999) has a very complete definition of what a VLE is in terms of the learner. He defines a "virtual learning environment" as follows:

. . . we define a virtual learning environment as one that allows learners to perceive the environment, assess situations and performance, perform actions and proceed through experiences and lessons that will allow them to perform better with more experience on repetition on the same task in similar circumstances. This definition of a virtual learning environment emphasizes the importance of learning. Learners in a virtual environment are expected to make use of and include examples, observations, experiences, situations, rules, concepts and techniques in a continuous (e.g., day by day or week by week), permanent (i.e., committing knowledge into memory) fashion to improve the performance of the execution of tasks.

The VLE that was used for this small scale research project was MOODLE. The vast majority of students (95%) that took part in the study had not used MOODLE before or any other VLE for that matter. This in turn accounts for their resistance in using the technology in the classroom. Therefore tutorials and additional resources had to be readily available for students.

Virtual Learning Environments have become so popular in many different kinds of institutions over the years due to the realistic benefits that are to be gained by using technology. VLE have demonstrated time and time again effective communication links along with more opportunities for a variety of automated assessment tools. Resources are readily available both online and offline, as well as the accessible to students. There are arrays of tools that can be offered in a VLE. However for the purposes of this study the tools will be limited to those of the MOODLE platform which were used to carry out the study in question.

Communication Tools

Assignments - Assignments allow the teacher to specify a task that requires students to prepare digital content (any format) and submit it by uploading it to the

server. Typical assignments include essays, projects, reports and so on. This module includes grading facilities.

Discussion Boards (Forums) - Forums can be structured in different ways, and can include peer rating of each posting. The postings can be viewed in a variety of formats, and can include attachments. By subscribing to a forum, participants will receive copies of each new posting in their email. A teacher can impose subscription on everyone if they want to.

Live Chat - The Chat module allows participants to have a real-time synchronous discussion via the web. This is a useful way to get a different understanding of each other and the topic being discussed - the mode of using a chat room is quite different from the asynchronous forums. The Chat module contains a number of features for managing and reviewing chat discussions.

Content Delivery (Lesson) - A lesson delivers content in an interesting and flexible way. It consists of a number of pages. Each page normally ends with a question and a number of possible answers. Depending on the student's choice of answer they either progress to the next page or are taken back to a previous page. Navigation through the lesson can be straight forward or complex, depending largely on the structure of the material being presented.

Journal - The teacher asks the student to reflect on a particular topic, and the student can edit and refine their answer over time. This answer is private and can only be seen by the teacher, who can offer feedback and a grade on each journal entry.

Assessment

Quizzes - This module allows the teacher to design and set quiz tests, consisting of multiple choice, true-false and short answer questions. These questions are kept in a categorized database, and can be re-used within courses and even between courses. Quizzes can allow multiple attempts. Each attempt is automatically marked, and the teacher can choose whether to give feedback or to show correct answers. This module includes grading facilities.

Workshop - A Workshop is a peer assessment activity with a huge array of options. It allows participants to assess each other's projects, as well as exemplar projects, in a number of ways. It also coordinates the collection and distribution of these assessments in a variety of ways.

Content Exchange & Group Work

Database - The Database module allows the lecturer and/or students to build, display and search a bank of record entries about a topic. The format and structure of these entries can include images, files, URLs, numbers and text amongst other things.

Glossary - The Glossary activity allows participants to create and maintain a list of terms and definitions. It can be used to build an annotated list of useful websites or FAQs.

Wiki - A Wiki enables documents to be authored collectively. A history of all contributions and changes is stored and the wiki can be rolled back to a previous version at any time.

2.6.3 ICT in Colombia

There have been numerous projects at the University level along with the Colombian Ministry of Education and the Colombian Ministry of Communications in terms of implementing ICT into the curriculum. Most of these projects have been done as small scale projects in order to introduce technology into the classrooms. The intention in Colombia is not to replace the face-to-face class with a totally online version, but to use VLE as a complement. The Colombian Ministry of Communications has invested a great deal of money on technology. There are still regions throughout Colombia where internet access is still not available, other cases where there is no broad band only a dial up connection. All of this affects the way Colombians perceives VLE. At El Bosque University, which is a private University located in northern Bogota, Colombia, they adopted MOODLE⁵ around 2004 as a way to relate and integrate a virtual learning environment into the daily job of the teaching staff, without converting the traditional classroom into a distance education program; thereby recognizing a VLE as an additional educational scenario. In terms of educational arenas, it is no longer just the classroom, the auditorium, the library, the laboratory, but also the virtual classrooms are becoming known in Colombia.

There are projects that are being led by the Colombian Ministry of Education, The national Project on “Use of New Technologies & Methodologies in Higher Education”. As well as private Universities such Los Andes University where they have a research center, Educational Informatics Research and Development Laboratory (LIDIE)⁶ which started in 2005 as a way to support face-to-face classes in higher education, by incorporating ICT in the academic environment, thereby

⁵ Universidad El Bosque’s Portal for Virtual Classes – <http://ebosque.unbosque.edu.co/moodle/>

⁶ Laboratorio de investigación y desarrollo sobre informática y educación – LIDIE. <http://ava.uniandes.edu.co/>

providing alternatives that can accompany teachers in designing virtual environments as support to face-to-face classes. (Los Andes University, 2005)

Another institution that focuses on ICT in Colombia is the Research and Development Center in Computers in Education⁷, which is a part of the Computer Sciences Department at EAFIT University in Medellin, Colombia. The Center works on areas such as collaborative learning environments using ICT, hypermedia, multimedia, tutorials development, teaching sciences, and learning networks using ICT among others. The main project of the center is CONEXIONES where it develops collaborative learning environments promoting education for a sustainable future, where ICT such as multimedia and interactive learning environments are incorporated into the basic curriculum in order to improve the quality of and equity of access to the education here in Colombia. (Zea, 2005) (EAFIT University)

⁷ Universidad EAFIT, Departamento de Informática y Sistemas. www.conexiones.eafit.edu.co

CHAPTER 3 - METHODOLOGY OF THE INVESTIGATION

3.1. Investigation Type

This small scale research project follows a qualitative paradigm, consequently almost all the data, events, and preliminary results informing the study are not the object of summative or statistic analysis. Thus no measurements are meant to be done, as mentioned in (Burns, 2001) “The aim of qualitative approaches is to offer descriptions, interpretations and clarifications of naturalistic social contexts”. (p.22)

The qualitative paradigm is based on the idea that reality is not measurable given the unpredictable and diverse nature of events, meanings, interpretations and consequences of these. Social meanings and perspectives are not meant to be controlled variables within a simulated environment detached from reality. Instead these events are studied within their natural occurring environments.

The emphasis of qualitative approaches is “...on “rich” data collection with extensive explanations and details being provided on the contexts and participants in the research...” (Burns, 2001, p.23) consequently data may imply the registration of several more variables and events than those expected. The question that this study sought out to answer was, How can Information and Communication Technology (ICT) be a complement to conventional teaching in the “New Technology for English Teaching” class (Content Based Instruction) to promote L2 (English) among non-native Pre-service English Teachers.”

3.2. Design of the Investigation

The study employed a mix of quantitative and qualitative approaches by way of using questionnaires that included both open-ended and closed-ended questions.

The investigation design was chosen in order to accommodate the research questions that were addressed in the current study.

The current study collected both quantitative and qualitative data simultaneously by using the questionnaire to explore the use of ICT among the 8th semester students in the Teaching Licensure Program on Bilingual Education. Furthermore the analysis of qualitative data from a series of open-ended questions would further elaborate the findings from quantitative data.

Due to the nature of questionnaires, all aspects of the study were able to be explored. Factual questions were asked so that demographic characteristics could be identified such as gender, age and experience. Behavioral questions helped to determine the students' use and skills in ICT. Not to mention, attitudinal questions where the perceived benefits of ICT as well as the barriers that come along with integrating and/or using ICT in order to improve L2. (Dörnyei, 2003; Johnson & Turner, 2003 in Jung 2006; Brown & Rodgers, 2002)

3.3. Population and study sample

3.3.1 Setting

This study took place at El Bosque University at the School of Education located in the northern part of Bogota, Colombia. El Bosque University is a private institution with a Bio-Psycho-Social and Cultural model that leads all of their programs. The mission of the University is committed to the country and has as its utmost mission to the promotion of human dignity in all its aspects. The Faculty of Education with its Undergraduate program in Bilingual Education has an objective to develop their activities through a modern pedagogy and Bilingualism. The university

is located in the capital of Colombia, which is the largest city with a population of eight and half million (DANE⁸, 2007)

This investigation, “The use of Information and Communication Technology (ICT) in the EFL Classroom as a teaching tool to promote L2 (English) among non-native Pre-service English Teachers”, took place between two semesters in 2007-2 until 2008-1. The investigation came as a result of eighth semester students in the Teaching Licensure program in Bilingual Education not having prior knowledge or competencies in order to fully understand and use the VLE, for that reason this group was used as the basis of the investigation.

The Undergraduate Licensure Program In Bilingual Education has as its mission⁹ to confront the challenges of training licensed, bilingual educators who are able to lead the processes of bilingual formation in their educational institutions; who are inclined by the development of pedagogical and research competencies, thereby creating an academic community in which the participation in the advances and development of the latest theories, methodologies, and techniques in the teaching of English. The university’s aim is that by forming bilingual educators they look to develop a critical and investigative spirit, along with citizen awareness regarding the educational and the socio-cultural reality of the country looking for a bilingual Colombia in 2019. (Universidad El Bosque, 2007)

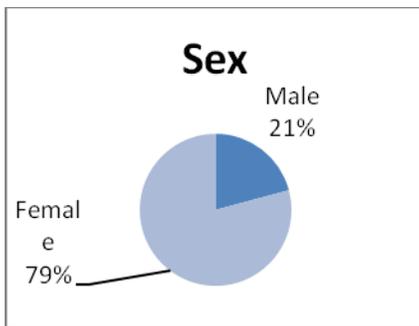
3.3.2 Participants

⁸ DANE – Departamento Administrativo Nacional de Estadística / National Statistic Department of Colombia

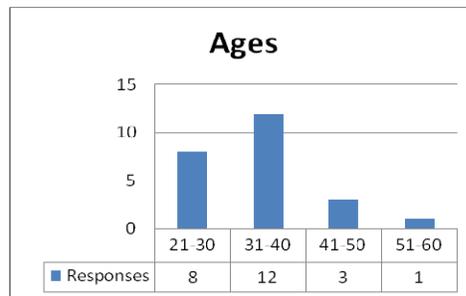
⁹ Translation of Bosque University’s, School of Education’s Mission for the Teaching Licensure Program on Bilingual Education. 2007 www.unbosque.edu.co

The participants that were used for the current study were students in the 8th semester of the Licensure Program on Bilingual Education. There were a total of 24 participants, 19 females representing 79% and 5 males representing 21% all in the eighth semester of a ten semester program in the fall of 2007. The ages ranged from 22 to 60 years of age. The mean age was 27. These students have six levels of English as part of their academic plan of studies as well as a British Literature and an American Literature course. More than 75% of their subjects are taught in English.

Graph 1 Sex



Graph 2 Ages



Most of the students belong to the third or fourth socio-economical status. They all have a very close relationship and are or have been working as teachers in bilingual schools throughout the city. For twelve of the students, which represent 46% of the total number of participants, they are pursuing a second career.

Each student was asked to participate on a voluntary basis in the project; the twenty-five students who made up the group accepted by signing a consent form.

See Appendix A for the parameters established with this agreement. There were a total of thirty-two questionnaires that were sent out overall. There were first sent out by email, and then there were delivered personally, where students were asked to complete the questionnaires and return them as soon as possible. After three weeks of sending out the hard copy, additional email messages were sent out as reminders. The questionnaires were made using Adobe Designer 7.0 so that the information could easily be filled out and delivered. Of the thirty-two questionnaires that were disseminated, 24 valid ones were returned. The response rate was 75%

3.4. Variables

Due to the type of study that was chosen, the variables do not affect the outcome of the results. The variables helped in indentifying the background information of the students. The sample that was used was quite small in nature consisting of 24 students (19 females and 5 males), all belonging to one group. The students were chosen simply because they were enrolled in the same class “Computer Assisted Language Learning” – (C.A.L.L.), which is offered in the eighth semester of a ten semester program.

The variables that were used for this study are:

- Age
- Sex
- Years of English Teaching
- Years of Speaking English
- Native Language

3.5 Techniques and instruments for gathering of data.

As Bonilla Castro (1997) ¹⁰ pointed out, the gathering of data has to do with qualifiable and quantifiable dimensions due to the particularities that each one has determines the employment of the appropriate recollection instruments in order to

¹⁰ The quote taken from Bonilla-Castro is a translation of the Spanish written text, translated to the best of my ability.

produce numeric data or textual data based on the narration and the description. The instruments implemented were considered in order to clearly describe definitions and concepts as well as reasons for implementing them. These definitions, implementations and reasons for its applications are described below.

3.5.1 Field Notes

Defined by (Macintyre, 2000) as a "...quick and unobtrusive way of recording aspects of behavior as they occur or as soon as is practical afterwards. The notes are quick observations of something that is happening now, and so they have a liveliness and authenticity that is pleasing" (p.62) Observations were made during the common lesson development throughout the whole semester. Initially they were incidental since no focus or determined issue was defined, but as the process evolved they started to be pre-planned with a specific focus on how students reacted to certain tasks and activities in class.

This instrument was considered the main source of data since the registration of behaviors and attitudes were key and a necessary component of the project. Field notes provided the researcher with a space to make detailed descriptions of the features mentioned above.

3.5.2 Questionnaires

According to (Macintyre, 2000) a questionnaire is a "...survey of different opinions from (usually) a large number of people who provide anonymous replies. The questions are standardized, i.e. each respondent receives the same number and kind" (p.74). Questionnaires were implemented three times during throughout the investigation on three different occasions. At the beginning, questionnaires were used to explore students' perceptions of ICT, different uses of ICT as well as how the integration of ICT affected the teaching learning process. The students' perception of whether or not writing could be improved through the use of ICT. Students were asked to answer questions related to reasons for learning English, the types of activities that were conducted in class, the type of ICT activities that

were preferred and how they perceived learning with the integration of ICT. (See Appendix B for questionnaires.)

3.5.3 Interviews

The purpose of implementing interviews was to expand the obtained data on questionnaires and field notes as well as to explore the reasons students proposed for their previous elicited answers. As mentioned in (Macintyre, 2000) “The interviewer is hoping to be able to give explanations of why people’s views are as they are...” (p.84). The qualitative interview is an exchange of ideas, meanings and feelings about the world and events, whose main means are words. (Bonilla-Castro, 1997)¹¹

Interviews were implemented on various occasions throughout the investigation. Teachers and students alike were interviewed. In order to make the group interviews a relaxed and open procedure the teacher decided to implement it as an open classroom discussion, with no direct questions to each student. Burns, (2000) assures that when interviewing this way, it “not only provides systematic data as the basis for reflection, evaluation and further diagnosis of the research issues, but also contributes to a more open and positive classroom environment...”(p.127).

Most of the students belong to the third or fourth socio-economical status. Most of them live in the south part of the city. They all have a very close relationship. The students are not required to buy a text, however they are responsible for the teacher made material.

Each student was asked to participate on a voluntary basis in the project. The twenty-four students that made up the group accepted by signing a consent form. See Appendix A for the parameters established with this agreement. Likewise the

¹¹ The quote taken from Bonilla-Castro is a translation of the Spanish written text, translated to the best of my ability.

Dean of Education was informed and approval was guaranteed for the project to be developed (See Appendix A).

CHAPTER 4 - TABULATED RESULTS

4.1 Tabulated Results

Section # 1

Age	Responses
21-30	8
31-40	12
41-50	3
51-60	1

Years of Teaching English	
2 yrs	8
4 yrs	2
5 yrs	2
7 yrs	3
8 yrs	3
9 yrs	4
10 yrs	2

Sex	
Male	5
Female	19

Native Language	
Spanish	24

Years of Speaking English	
5 yrs	4
7 yrs	5
8 yrs	3
9 yrs	2
10 yrs	3
13 yrs	2
15 yrs	3
21 yrs	1
35 yrs	1

Section # 2 Different Uses of ICT

Q1

What are the different uses of ICT in the EFL Classroom in order to develop each skill?	
Reading	
Real language	2
Pronunciation	2
Reading Comprehension	8
Downloading Worksheets	2
Reading Software	4
Current Events	3
Leveled Reading Activities	5

Writing	
Blogs Online	8
Diaries	4
Collaborative Writing Drills	4
Worksheets online about the English program "Reading"	2
Developing All activities available in this technology	4
Chats	6
Emails	8
Journals	1
Forums	4

Listening	
Real language	6
Practice Drills	4
Quizzes	3
Movies	12
Songs	12
Listening Exercises online	8

Using CD's, DVD's, audio & video	8
Live News Feeds	2
Speaking	
Saying speaking exercises	4
Online Interviews	8
Flashcards	3
Toys & Tools for developing the alphabet & spelling	4
Forums	5
Panel Discussion	3
Doing activities that are in these programs	1
Online chats	3
Conferences	5
Video Chat	3
Group Tasks	4

Q2 - What are your favorite activities when integrating ICT into the classroom?
Please give reason why

Surfing the Net

Web quest

Specific learning pages, Reason; needed to be planned in advance

News in order to stay up to date

Networking

Collaborative work

E-mail

Setting & receiving homework

Sending and receiving assignments, updates, etc. instantly

Chat

Practicing writing

Discussing tasks that were not finished in the classroom, kind of like an extension activity

Chat with audio

Practicing pronunciation

Because learners have the chance to practice L2 with native speakers

Practice pronunciation and conversational skills with peers

Used as a peer evaluation as a tool to record and make corrections

Chat with audio and video

Practicing pronunciation

Improve listening and speaking

Discuss specific tasks, not touched on in class, seems real, where there is constant interaction and feedback at different levels

Forums

Practicing pronunciation

The chance to express your opinion (written) using both formal and informal language

Portfolio Construction

Organization

Spending less time on organization

With notes, exercises, letters, drawings

Word processing

To help write essays and other written documents

There are very convenient to use in process writing at all levels of development

Web Site construction

Because students have the chance to practice and to develop some skills at the same time

This gives students the opportunity to express themselves any way they want to, writing is involved and since it is made public, students are more conscious of making mistakes.

Presentations

Section # 3 Learner's Preferences and/or Usefulness

Q3 - How useful have you found the following applications of technology as part of your learning English?

	Totally Not Useful				Very Useful	N/A
	1	2	3	4	5	
Power Point Presentations						
Using MS Office (Word, Excel, Access, etc.) applications						
Using Internet to find information						
Accessing information from CD-Roms						
Accessing information from DVD's						
Using Emails						
Accessing The VLE/Intranet (as defined on the back)						
Downloading Lecture notes and messages from VLE/Intranet						
Using message boards and chat rooms on VLE/Intranet						
Using Self-assessment tests			8	4	12	0
Taking Online tests and quizzes with instant electronic feedback	0	0	4	4	16	0
Submitting work via email	0	0	0	8	12	4
Following web links provided for extra information	0	0	4	4	12	4
Tracking your own progress on the VLE	0	0	0	8	8	8

Q4 - How useful have you found the following applications of technology as part of your learning in English?

	Totally Un-useful				Very Useful	N/A
	1	2	3	4	5	
Power Point presentations	4	4	4	0	12	
Using MS Office (Word, Excel, Access etc) applications	0	0	4	8	8	4
Using Internet to find information	0	4	0	8	12	0
Accessing information from CD Roms	0	0	4	12	8	0
Accessing information from DVDs	0	0	4	8	12	0
Using email	0	0	0	8	12	4
Accessing the VLE/ Intranet (as defined on the back)	0	0	0	12	4	8
Downloading lecture notes and messages from VLE/Intranet	0	4	4	4	12	0
Using message boards and chat rooms on VLE/Intranet	0	0	4	4	12	4
Using self-assessment tests	0	0	8	4	12	0
Taking online tests and quizzes with instant electronic feedback	0	0	4	4	16	0

Submitting work via email	0	0	0	8	12	4
Following web links provided for extra information	0	0	4	4	12	4
Tracking your own progress on the VLE	0	0	0	8	8	8

Q5 - Which of the below ICT applications promote and/or support writing in the EFL Classroom?

Emails	16
Chat	4
Blogs	12
Online discussion groups	12
Letters	20
Postcards	16
Articles	16
Reports	16
Online Newspapers	12
Forums	16
Web Log Writing	12
Other	0

Q 5. How would you improve the general use of ICT in the "CALL" class in order to enhance your learning experience?

More interaction from teacher	16
Clearer instructions	12
More feedback from teacher	16

More writing assignments	16
Less writing assignments	0
More Chats	8
Less Chats	6
More forums	16
Less Forums	0
More peer feedback and interaction	20
More assignments and/or projects in team	16
More tutorials on how to use the "Aula Virtual"	16
Use of video with chat	16
Course Content	4
More Multimedia	16
Other	0

Q6. How could learning L2 be improved in "CALL" using ICT?

- Through different strategies using technologies such as internet resources, presentations by video beam encouraging students to the proper use of ITC – 4
- CALL could improve my learning L2 process throughout activities that promote interaction among different people and situations that demand writing and understanding process and activities.
- CALL lets the students to improve their creativity – 3
- Using more frequently all the equipments and ways that the new technology on computers and internet are available to teach L2.
- You can use tools that are provided by ICT that make it easier for students to give feedback to each other, as well as to spend less time on organizing information. 6
- These tools also provide you with an easier way to access real world language (newspaper, magazines, chatting, etc.) – 3

Q 7. Which skills, if any, do you think would be easier learnt by greater use of technology? Write as many as you like below with a brief description of each.

Q 8. The use of ICT has improved my ability in

	Strongly Disagree	Dis-agree	Neutral	Agree	Strongly Agree
Reading	0	0	0	12	12
Writing	0	0	8	4	12
Speaking	0	4	16	0	4
Listening	0	0	0	8	16

- All of them. The ability to communicate in plenty of areas; by reading, writing, listening & speaking and the use of the language as itself. – 4
- The skills that would be easier learned by greater use of technology are: writing, reading comprehension, listening, and cultural interchange or the ability to understand different cultures through using technology. 2
- Listening, because it is the hardest part when learning L2 and when living in a country where the L1 is the main language and L2 is 10% teacher's need to find out the strategies to get the students to receive a lot of input in L2 and ICT CALL gives this opportunity to improve listening skills.
- Writing: some ICT tools (i.e. Blogs) provide you with things that ordinary journals don't. 6
- Listening: You can access real language, and tons of exercises ready to be used form anywhere, anytime. 4
- Listening, because if you do not have the opportunity to travel abroad and practice English, you can do so through the use of technology. 4
- All of the skills could be improved by proper use and implementation of ICT in the classroom. 2
- Reading can be improved, because there are all sorts of interesting things to read at different levels. 8
- Writing can be improved tremendously by using ICT, students are able to interact with native speakers, emails, blogs, chats and the like are in constant use, Word processors are used on a daily basis in order to perfect writing skills. 8
- Listening can also be improved due to technology nowadays, there are news broadcast throughout the world that can be heard, there are sites with authentic audio designed specifically to help L2

Q 9. Three websites you frequently visit for learning English

http://www.myteacherpages.com/newclick3.cfm?g=google_newclick

<http://www.inspiringteachers.com/community/webpages.html>

<http://www.kn.pacbell.com/wired/fil/pages/listfreewebjw.htm>

<http://www.4teachers.org/kidspeak/evan/index.shtml>

<http://teacher.scholastic.com/homepagebuilder/>

<http://www.myclass.net/>

www.eslpod.com

www.bbc.co.uk

www.scholastic.com

www.learnenglish.com

www.britishcouncil.org.co.2

www.eslcafe.com

www.thebobandrobshow.com

<http://www.hello-world.com/English/song/alphabet.php>

<http://multiweb.lib.calpoly.edu/medialib/epa/index.html>

http://www.audioenglish.net/p/british_american_english_pronunciation.htm

<http://www.speakoz.com/>

<http://www.manythings.org/>

<http://www.starfall.com/>

<http://www.eduplace.com/math/hmm/tools/tt4.html>

<http://pbskids.org/>

www.ello.org/games/games/05-LG-hair.htm

www.ello.org/yeartwo/april03rd/flat_game.htm

www.englishch-hilfen.de/en/exercise/hear_listening.htm

www.uefap.com./listen/exercise/computin/compfram.htm

<http://iteslj.org/links/ESL/Listening/>

<http://www.voicesand.com/talent/meier/meier.mp3>

<http://www.phon.ucl.ac.uk/home/johnm/flash/findrp.htm>

<http://international.ouc.bc.ca/pronunciation/movie1.html>

<http://international.ouc.bc.ca/pronunciation/minpair1.html>

<http://cla.univ-fcomte.fr/english/dictations/rodspeople/rods01/01.htm>

<http://angeleshernandez.wordpress.com/english-language-practice/improve-your-listening/>

<http://www.americafree.tv/unica>

<http://cla.univ-fcomte.fr/english/precoce/stories/pea.htm>

<http://cla.univ-fcomte.fr/english/dictations/telephone/telephone.htm>

<http://cla.univ-fcomte.fr/english/herethere/19.htm>

<http://www.nytimes.com/ref/multimedia/podcasts.html?8qa>

<http://www.esl-lab.com/>

<http://www.esl4kids.net/songs.html>

<http://kids.nationalgeographic.com/Videos/>

<http://www.sesameworkshop.org/>

<http://dsc.discovery.com/>

Q 10. Two or Three software programs you use for learning English

- I don't use particular software, just websites and web mediated activities. 4
- Educational software including the program we are using at pre-school (Reading Program) by Houghton Mifflin publisher, Sesame Street Software in order to practice spelling, numbers and vocabulary
- iTunes to look for Podcast - 10
- American Language Course Instant Immersion 102 Languages
- Discovery Course Rosetta Stone
- English Discoveries – 8
- Tell me More
- Learn English Now

Q 11. Most valuable benefits from using technology in Learning English

Q 12. Finally, do you have any other comments on the use of technology as part of your learning?

- The new advantages that is offered by the new electronic technology is an important tool that English Teachers must take advantage of them both to encourage students to learn and to get them to improve in an easiest way, and

as the same time this technology provides learners with a lot of input that engage them with the learning process.

- Technology is a useful learning tool, not only in the second language learning process, you can also use technology to know different cultures and learn from them all the socio-cultural aspects of a population.
- ICT has been an important tool for both, students and teachers as well taking advantage of education at all levels nowadays. The right use of it represents the key to the development of it. Students like this tool to explore and learn.
- In order to develop vocabulary
- To figure out the other meanings of words and their different contexts, especially when translating.
- ICT can be a very useful tool; however, I don't feel like I know enough to use it in my classrooms.
- I am getting excited about using ICT, I only thought of it as having computer programs where I had to repeat everything that was seen or heard.
- Thanks to ICT there are an array of activities, tasks, etc. that can be used in order to help students improve L2.
- The ability to interact with others by way of ICT is great.

CHAPTER 5 - DISCUSSION OF RESULTS

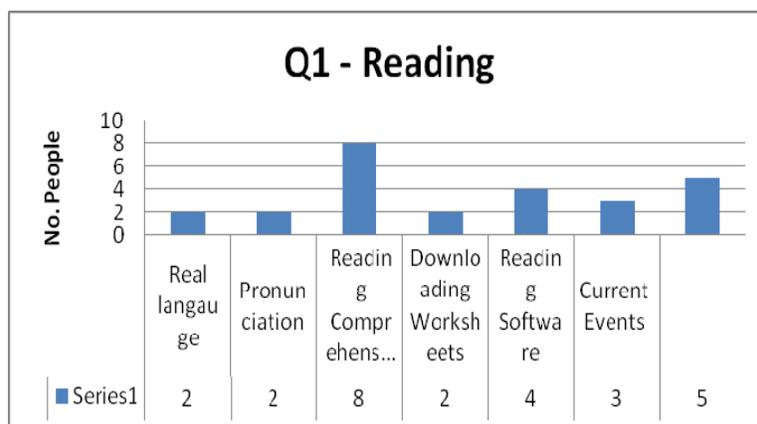
This chapter analyzes the quantitative results that were taken from the open-ended questions from the questionnaire that was applied are discussed.

All of the research questions will be addressed in detail.

There were a total of 24 students that responded to the questionnaire 19 females (79%) and 9 males (21%). This is quite common in the teaching field here in Colombia to have more female teachers than males. Nevertheless, this study did not do correlations between male and females.

Q1. What are the different uses of ICT in the EFL classroom in order to develop each skill?

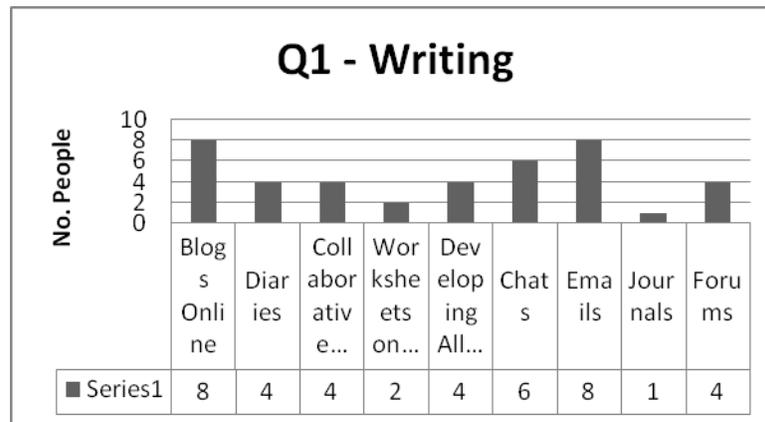
Graph 3 Q1 Uses of ICT in the EFL classroom in order to develop Reading



All four skills were analyzed in order to determine a connection between skill development and ICT in the EFL classroom. Open ended questions were used to establish this connection. In terms of reading, the responses were as follows; real language, pronunciation, reading comprehension, worksheets (downloadable), reading software, current events and leveled reading activities. Surprisingly, reading comprehension was chosen in 8 opportunities representing 33.3%. This may be due to the fact that many of the pre-service (students) spend a great deal of time in this class reading the documentation online via the virtual classroom. In addition, leveled reading activities, 20.8 % were also selected as being crucial to developing their reading skills in English. Needless to say real language, pronunciation and downloadable worksheets had a very low response rate, where each of them was only mentioned twice.

Writing

Graph 4 Uses of ICT in the EFL classroom in order to develop Writing Reading



The results from writing indicated that the students are very active in using a wide array of applications in order to promote their writing. The responses were Blogs, Online Collaborative Writing Drills, work sheets online about the English program "Reading", Chats, Emails, Journals and Forums. The two areas that had the most responses did not come as a surprise, Online Blogs and Emails. Both of these applications have become a part of our day to day routine. Emails are used for formal and informal writing, students use it to submit assignments, communicate with peers as well as their instructors; exchange information among themselves, communicate on the go, etc. Blogs are becoming a way of self expression. A Blog is basically a shared on-line journal where people can post daily entries about their personal experiences and hobbies, allowing the students to read, write, or edit their information on-line.

Nowadays, there more and more sites that are becoming available to create blogs such as:

Blogger – www.blogger.com

Blogs Colombia - www.blogscolumbia.com

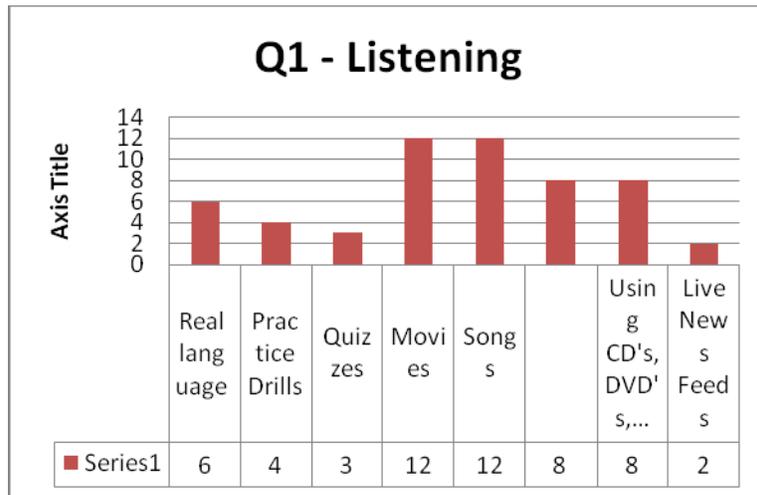
My Space – MSN http://www.bradsreader.com/brads_reader/2007/08/using-myspace-t.html

Yahoo Blogger (Yahoo 360°) – www.360.yahoo.com

Google Blog – www.googleblog.blogspot.com

Listening

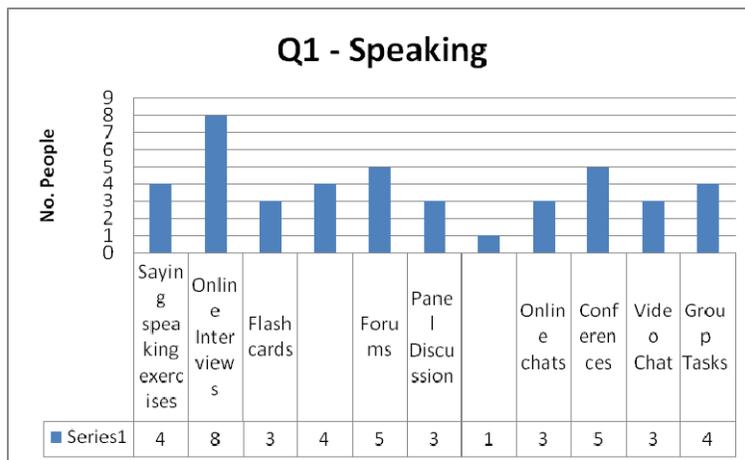
Graph 5 Figure 5 – Q1 Uses of ICT in the EFL classroom in order to develop Listening



The results from the questionnaire indicate that *movies* (12) and *songs* (12) were equally used the most in order to develop listening skills in the EFL classroom. However, a larger majority of the students also selected general listening exercises online (8) as well as *using CD's, DVD's, audio & video* (8) as way to enhance listening.

Speaking

Graph 6 – Q1 Uses of ICT in the EFL classroom in order to develop Speaking



The entry that had more hits was *“Interviews”* (8). This could be as a result of a series of activities that were done in the CALL class which were dedicated to conducting interviews, recording interviews using cell phones or MP3 players, so that the information could be stored

digitally and then use it to improve pronunciation. The students also used this mechanism in order to record their voices as well as do self evaluations throughout the course; the students also recording themselves reading, so as to listen for pitch, tone, intonation and adequate speed. Mock interviews were also carried out online, in which they were able to receive feedback not only from peers and professionals in English but they also had a chance to go through the actual process of being interviewed in English.

On one occasion the students also signed up to use Interview Stream Campus¹² which offers a service that allows students to see and hear themselves online through an interview system controlled by the campus career center. This latest innovation in interview technology is offered to universities, where students can find an array of information related to interviewing, webinars on how to use the software and well tutorials to practice. Technology of this kind does wonders for student teachers to interact in the target language (English).

Forums and Conferences (5) were also at the top of the list (where students felt that these online tools aided in improving speaking skills). The group of students that took part in this questionnaire took part in several online voice conferences using Global Live Talk V2¹³, which is software that powers online conferencing on intranets and the Web, including real-time rich media conferencing, instant messaging, chat, video conferencing, online meetings, collaborative workspaces, PowerPoint Presentations, and software for virtual communities.

Q2 What are your favorite activities when integrating ICT into the classroom?

The results are displayed on page 34

Q3 The following applications of technology were found to be very useful as part of the student's learning English.

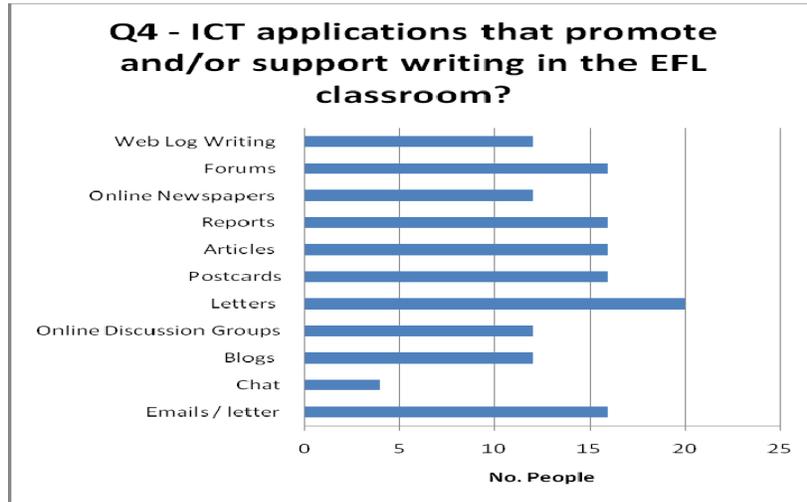
- Taking Online tests and quizzes with instant electronic feedback
- Power Point Presentations

¹² Interview Stream Campus www.campus.interviewstream.com

¹³ GlobalLive Talk www.globallivetalk.com

- Using Internet to find information
- Accessing information from DVD's
- Using Emails
- Downloading Lecture notes and messages from VLE/Intranet
- Using message boards and chat roomson VLE/Intranet
- Using Self-assessment tests
- Submiting work via email
- Following web links provided for extra information

Graph 7 Q1 ICT applications that Promote / support writing in the EFL classroom



The main applications that promote and or support writing in the EFL classroom were;

ICT Application	No	%
Letters	20	83.3
Emails	16	66.7
Postcards	16	66.7
Articles	16	66.7
Reports	16	66.7
Forums	16	66.7

Table 1 Q1 ICT applications that Promote / support writing in the EFL classroom

According to the students' perception of what applications promote and or support writing in the EFL classroom, it is recommended that more time be given to writing and constructing letters, emails, postcards, articles, reports and using forums in the classroom.

Q5. The main activities that students perceive that would improve their general use of ICT in the "CALL" class so that their learning experience would be enhanced were

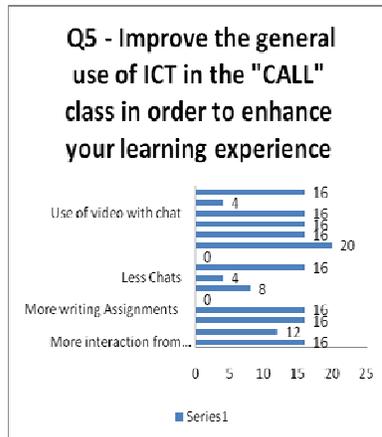


Table 2 Q1 Improve General use of ICT to Enhance Learning Experience

	No.	%
More peer feedback and interaction	20	83.3
More interaction from teacher	16	66.7
More Feedback from teacher	16	66.7
More writing Assignments	16	66.7
More Forums	16	66.7
More assignments and/r projects in team	16	66.7
More tutorials on how to use the "Aula Virtual" (virtual classroom)	16	66.7
Use of video with chat	16	66.7
More multimedia	16	66.7

Q6 The students perceive that the main ways to improve L2 in the "CALL" using ICT were

- Through different strategies using technologies such as internet resources, presentations by video beam encouraging students to the proper use of ITC
- You can use tools that are provided by ICT that make it easier for students to give feedback to each other, as well as to spend less time on organizing information.
- The L2 could be improved in the CALL class Using ICT by providing more tutorials how to use the classroom.

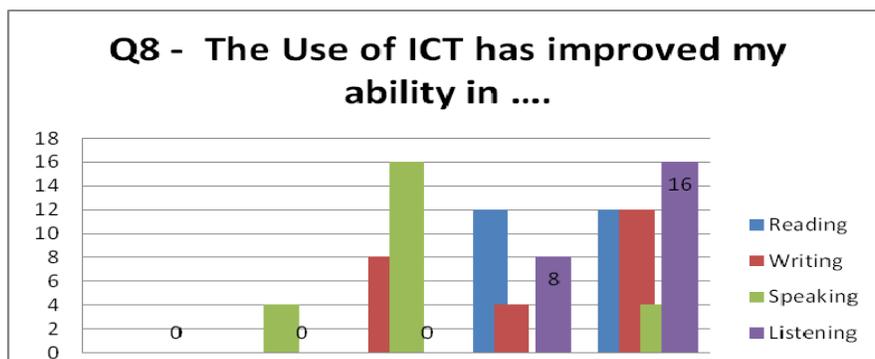
Q7 According to the results, the students perceive that reading and writing could be learned easier by a greater use of technology.

- Reading can be improved, because there are all sorts of interesting things to read at different levels.
- Writing can be improved tremendously by using ICT, students are able to interact with native speakers, emails, blogs, chats and the like are in constant use, Word processors are used on a daily basis in order to perfect writing skills.
- Writing: some ICT tools (i.e. Blogs) provide you with things that ordinary journals don't.

How students perceived the Usefulness of ICT

Percentages of the Effects of ICT on improving students' skills

Graph 8 Q8 The Use of ICT improving students' skills



The results reveal that the students feel that ICT improved their abilities in English. More specifically, students strongly agree that their Listening skills (67%) are greatly improved due to ICT as *Graph 8* shows. Nevertheless, more than half of the students (67%) appear to be neutral when considering the benefits of using ICT for speaking and in terms of whether or not ICT improves reading (50%) students agreed. As displayed in *Graph 8*.

Q10 The software programs that were used more often my students in order to learn English were; English Discoveries & EFL related podcasts using iTunes.

CHAPTER 6 - CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

This chapter will reveal the detailed results of the study. The qualitative results from the open-ended questionnaire revealed that ICT is definitively a complement to conventional teaching, especially when developing reading, writing and listening skills in English. It was also determined by this small scale study that speaking was the only skill that was not enhanced.

The key findings are:

1. The main uses of ICT in the EFL classroom by skills are:

Reading:

Students perceive that reading comprehension and leveled reading activities were the main uses identified by the students.

Writing:

The results revealed that blogs, emails and chats were considered the main uses

Listening:

Songs, Movies, Online Listening Exercises, Using CD, DVD audios and videos

Speaking:

Online interviews, Forums and Conferences

2. Pre-service English Teachers Preferences (applications / activities) when integrating ICT into the classroom in order to promote L2 learning

Surfing the Net

Web quest

Specific learning pages, Reason; needed to be planned in advance

News in order to stay up to date

Networking

Collaborative work

E-mail

Setting & receiving homework

Sending and receiving assignments, updates, etc. instantly

Chat

Practicing writing

Discussing tasks that were not finished in the classroom, kind of like an extension activity

Chat with audio

Practicing pronunciation

Because learners have the chance to practice L2 with native speakers

Practice pronunciation and conversational skills with peers

Used as a peer evaluation as a tool to record and make corrections

Chat with audio and video

Practicing pronunciation

Improve listening and speaking

Discuss specific tasks, not touched on in class, seems real, where there is constant interaction and feedback at different levels

Forums

Practicing pronunciation

The chance to express your opinion (written) using both formal and informal language

Portfolio Construction

Organization

Spending less time on organization

With notes, exercises, letters, drawings

Word processing

To help write essays and other written documents

There are very convenient to use in process writing at all levels of development

Web Site construction

Because students have the chance to practice and to develop some skills at the same time

This gives students the opportunity to express themselves any way they want to, writing is involved and since it is made public, students are more conscious of making mistakes.

The most useful applications that promote the students learning English are:

- Taking Online tests and quizzes with instant electronic feedback
- Power Point Presentations
- Using Internet to find information
- Accessing information from DVD's
- Using Emails
- Downloading Lecture notes and messages from VLE/Intranet
- Using message boards and chat rooms on VLE/Intranet
- Using Self-assessment tests
- Submitting work via email
- Following web links provided for extra information

3. *The main ICT applications that promote and or support writing in the EFL classroom are:*

Letters
Emails
Postcards
Articles
Reports
Forums

4. The main activities that students perceive that would improve their general use of ICT in the "CALL" class so that their learning experience would be enhanced were:

- More peer feedback and interaction
- More interaction from teacher
- More Feedback from teacher
- More writing Assignments
- More Forums
- More assignments and/r projects in team
- More tutorials on how to use the "Aula Virtual"
- Use of video with chat

- More multimedia

In conclusion, the data obtained from this study revealed that by using ICT strategically, it would help to improve the teaching and learning process for students learning the L2. The success of ICT when implemented in the foreign language classroom depends on the teacher. In addition, it is very important that the teacher is well versed in using the tools surrounding ICT in order to fully take advantage of the benefits that ICT offers a conventional classroom.

In the technological revolution and the information age, using technology in teaching English becomes “a fact of life” (Chapelle, 2001, p. 1, in Jung, 2006) and becomes “a part of the broader ecology of life at the turn of the century” (Warschauer & Meskill, 2000, p. 10). It is widely assumed that technology has enormous potential to improve learners’ achievement by expanding students’ learning experience, increasing motivation, facilitating collaboration, fostering learner autonomy, and promoting global understanding, not to mention developing language skills if it is used effectively in the context where learning takes place (Jurich, 2001; Lee, 2000 in Jung 2006).

Furthermore, with all of the technological advances that are presented now a day, ICT is becoming more important in the teaching learning process in the L2 language classroom. There is no doubt that the role of the teacher is of paramount importance in the process of integrating ICT into the classroom. Moreover, offering constant training to teachers is very crucial in that they should adapt themselves to the changing society, emerging technologies, and new learning and teaching environment. (Jung, 2006)

6.2 Recommendations / Future Investigation

A larger scale project should follow this initial attempt to integrate ICT into conventional foreign language classrooms. It would also be interesting to investigate a correlation between experienced teachers and new teachers in terms of how ICT is implemented into the English foreign language classroom, since the majority of all new teachers have had training in ICT prior to teaching and experienced teachers were introduced to ICT throughout their teaching career.

In addition a comparative study among the different semesters to analyze what tools, applications or activities directly enhanced or improved the progress and proficiency in English.

These future studies would be very important in understanding how to adequately implement and integrate ICT into the English foreign language classroom so that local curriculum guidelines and pedagogy can be updated accordingly.

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ANNEXES

Appendix A

RESEARCH EXERCISE

AUTHORIZATION

This Research Exercise is developed by Jermaine S. McDougald with the 8th Semester Students in the Teaching Licensing Under Graduate Program on Bilingual Education with an emphasis in English, more specially the C.A.L.L. course.

As part of a series of research exercises which are being carried out Leon University, Leon, Spain, specifically in the Masters Program in Teaching English as a Foreign Language, I am interested in the observation and interpretation of the perceptions that students have ICT in the EFL classroom as a teaching tool to promote English. This exercise is meant to be developed at Universidad El Bosque.

As one of the teachers of the course mentioned, I am interested in the kind of interactions that occur in classroom as well as the role that attitudes that students have according to their motivation to study English play.

My students are expected to be part of the dynamics of the class without any kind of limitation. They might also take place in interviews which are going to be recorded with their opinions about the language. Finally some questionnaires will be conducted in order to reconstruct their experiences with the language and ICT.

The information collected (recordings, observations and interviews) will be used in its interpretation and possible intervention for the improvement of the class per se. The exercise will not represent an obstacle or inconvenient for the normal development of the lessons and the complete inclusion of the contents.

When you authorize this research exercise:

You can ask me about everything that puzzles you and causes doubts about it.

Students can withdraw at any time they consider it necessary.

Students will not be asked to give reasons for withdrawing.

Students will be asked for their authorization to use the information collected.

Students' names will be changed in order to protect their identities.

If you wish you might have copies of the written report about the experience with the course.

As the Dean of the School of Education I, _____ authorize the development of this exercise. Signature: _____ Date: _____

E-mail: _____

Appendix B

Pre-Service Teachers

Information and Communications Technology Questionnaire

This survey focuses on your experiences with and opinions about *Information Communication Technology* and its use in learning English. The goal of this study is to define how ICT can be a complement to conventional teaching in the "CALL" class to promote L2 Non-native pre-service English teachers.

Definitions of *e-learning* and *virtual learning environments (VLEs)* can be found at the end of this questionnaire. I also use the terms 'information and communications technology' (ICT) and 'technology' as catch-all terms to refer to your use of computers and other related technologies.

Instructions for completion:

Where there is a space to write, please type in BLOCK CAPITALS. Please mark the box with an "X" against the option which most closely represents your answer. If there is a five-point scale then mark the box which you think most closely represents your views.

Section # 1 Background Information

Age: 21-30, 31-40, 41-50, 51-60

Years of English teaching: _____

Section # 2 Different Uses of ICT

Q1. What are the different uses of ICT in the EFL classroom in order to develop each skill?

Reading:

Writing

Listening

Speaking

Section # 3 Learner's Preferences and/or Usefulness

Q 2. What are your favorite activities when integrating ICT into the classroom? Please give reason why

Surfing the Net

Networking

E-mail

Chat

Chat with audio

Chat with audio and video

Forums

Portfolio Construction

Word processing

Web Site construction

Presentations

Others

Q 3. How useful have you found the following applications of technology as part of your learning in English?

	Totally un-Useful				Very Useful	N/A
	1	2	3	4	5	
PowerPoint presentations						
Using MS Office (Word, Excel, Access etc) applications						
Using Internet to find information						
Accessing information from CD Roms						
Accessing information from DVDs						
Using email						
Accessing the VLE/ Intranet (as defined on the back)						
Downloading lecture notes and messages from VLE/Intranet						
Using message boards and chat rooms on VLE/Intranet						
Using self-assessment tests						
Taking online tests and quizzes with instant electronic feedback						

Submitting work via email						
Following web links provided for extra information						
Tracking your own progress on the VLE						

Q 4. Which of the below ICT applications promote and/or support writing in the EFL Classroom?

Emails / letters

Chat

Blogs

Online discussion groups

Letters

Postcards

Articles

Reports

Online newspapers

Forums

Web Log writing

Other

Other

Q 5. How would you improve the general use of ICT in the "CALL" class in order to enhance your learning experience?

- More interaction from teacher
- Clearer instructions
- More feedback from teacher
- More writing assignments
- Less writing assignments
- More chats
- Less chats
- More forums
- Less forums
- More peer feedback and interaction
- More assignments and/or projects in team
- More tutorials on how to use the "Aula Virtual"
- Use of video with chat
- Course content
- More multimedia
- Other

Q 6. How could learning L2 be improved in "CALL" using ICT?

**Q 7. Which skills, if any, do you think would be easier learnt by greater use of technology?
Write as many as you like below with a brief description of each.**

--

Q 8. The use of ICT has improved my ability in

	Strongly Disagree	Dis-agree	Neutral	Agree	Strongly Agree
Reading					
Writing					
Speaking					
Listening					

Q 9. Three websites you frequently visit for learning English

--

Q 10. Two or Three software programs you use for learning English

--

Q 10. Most valuable benefits from using technology in Learning English

Q 11. Finally, do you have any other comments on the use of technology as part of your learning?

Definitions: The following definitions are being used for this questionnaire:

E-Learning: If someone is learning in a way that uses Information and Communications Technologies (ICTs) (i.e. computers and other equipment and software) they are doing e-learning. Classroom technology used might involve: all students sitting in front of networked computers while the teacher guides your learning; data projectors controlled from your teachers' computer; video-conferencing; using web cams; watching demonstrations using technology etc. If you are doing these things on your own this may also be called 'On-Line Learning'.

VLE: Virtual Learning Environment, which is accessed only by students and staff on the course (from home, at work on the University's Virtual class rooms "Aula Virtual") and allows the students to mingle virtually, use a chat room, access notices, get lecturers' notes, do quizzes/tests for assessment, and to email your teacher. The VLE may have links to relevant web pages and will be generally interactive. It might be known as a college intranet or by the trade names: MOODLE, Blackboard; WebCT; Lotus Learning Space.

THANK YOU VERY MUCH FOR COMPLETING THIS QUESTIONNAIRE

REMEMBER TO SUBMIT THE COMPLETED FORM OR ATTACH IT AND SEND TO jsmcougald@gmail.com