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Educación a distancia

“Integrating technology into ELT”

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Título obtenido: Licenciada en Inglés

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Acknowledgments

Even though this is the first thesis in my life, I expect it not to be the last one since I would like to continue my studies as regards EFL either by getting a Master Degree and/or a Doctorate degree. That is my dream. Ten years ago, writing a thesis for a BA in English would have been an unreachable dream, but God has helped me to do it and I am here.

I would like to thank my thesis supervisor, Andrea, who always helped me throughout the course of studies. Then I would like to thank my teachers, especially Analía, a primary teacher who wrote to me some words on my notebook the day I finished primary school. Those words will be unforgettable for the rest of my life and they have encouraged me to go on even in the worst moments of my life. My teacher Sergio Rojas from my tertiary studies also expressed to me his admiration for my devotion to English and predicted that I would reach the top.

Lastly, I dedicate this research work to the baby I could not have and I hopefully expect that above there in Heaven he/she would be proud of me.

Chapter 1

"When it comes to technology, any vision for powerful integration and implementation must by necessity begin with a rich understanding of the complex and interdependent characteristics of the new technology-infused environments in which schools are encompassed" (Willinsky, 2006).

1.1 Introduction

The present research work intends to show the ways by which technology improves and reinforces the teaching-learning processes in a specific educational context. This is Escuela Técnica N° 1 J.B.Alberdi located in J.B. Alberdi, in the province of Tucumán, Argentina. Teachers and students are currently being exposed to vast procedural changes as regards technology. Thus, they have more accessibility to get more and more information and to keep in touch with real English-speaking communities. There was no chance of this possible interactive communication process some decades ago. The methodology of TEFL has suffered such an impact that has affected foreign language teachers, too. Due to this, they have had to enrich their teaching capacities with new and innovative approaches, strategies and techniques in order to make them up with technology. As the author Chapelle (2005) points out "[s]ince computers started to be introduced in language learning (and in education in general) people have rightly asked whether the investment we are making in these technologies gives us value for money."

Moreover, technology is actually a fruitful tool which provides a wide range of materials that help teachers to develop and improve their students' learning skills and self-confidence with the language they are learning and practicing. In Motteram´s words, "[t]echnology is no longer at the periphery of the ELT field, but at its centre, providing teachers with the means to enhance the teaching of languages in classrooms all over the world." (2013:12). However, technology is a branch of knowledge that must be handled responsibly to obtain the most profitable results.

The contexts in which the current research work has set forth its research denotes the existence of pros and cons when integrating and using technology in English Language teaching, particularly in English language classes at secondary schools of

Concepción, Tucumán. The data obtained during the investigation supplied us with specific details which have been meaningful enough to understand the benefits and shortcomings of teaching English through technology as well as the chance to analyze and interpret the strategies, techniques and methodologies teachers employ in order to incorporate and articulate technology with the teaching of English as a foreign language at secondary schools.

1.2. Rationale

The implementation of technology in our classrooms has been labelled as “ICT” (Information and Communication Technologies). The use of ICT has a widespread significance and importance and has become one of the main purposes of many research studies on the impact of ICT in the teaching-learning process. Consequently, the use of ICT is present in worldwide ELT syllabuses. Thus, the implementation of different types of technology when teaching ELT is being proposed in our Argentinian syllabuses in Educational Documents such as NAPs (Núcleos de Aprendizajes Prioritarios) and DCs (Diseños Curriculares).

The reason why I am undertaking this project is my intention to find out if English teachers belonging to Escuela Técnica N°1 J.B. Alberdi especifically those who teach in the different sections of 6th year, I mean 6th “A”, 6th “B” and 6th “C” are already trained to adapt their curriculums and syllabuses under the implementation of ICT and perform such changes in their ELT classes

I attempt to demonstrate that English teachers from Escuela Técnica N°1 J.B. Alberdi are not prepared to implement ICT devices in their subjects yet due to different causes which I will develop and analyze in my Thesis. For instance, I will inquire about the different ways and modalities taken by teachers from a particular course from this particular educational institution. As I have mentioned above, the selected school is Escuela Técnica N° 1 J. B. Alberdi located in Juan Bautista Alberdi, Tucumán. The chosen course is 6th Year. I have selected this course taking into account that 6th course students have been using ICTs during several years since they have been provided with netbooks almost three years ago. Furthermore, teachers from this school have been given specific preparation in order to implement new technologies in their classrooms, so, they constitute

a standard model of a case of study based on the topic I have already chosen. The evaluation of the use of innovative technology will be the main focus of my investigation. Besides, the relationship between Student- ICT will be focused on through different students and EFL teachers involved in that school.

1.3. General objective:

The present research work is meant to find out how English teachers from Escuela Técnica N°1 J.B. Alberdi are trained and prepared regarding ICTs to implement them in their classes.

1.3.1 Specific objectives

- To find out if English teachers who teach in the different sections of the last year of Secondary School. i.e 6th year, 6th “A”, 6th “B” and 6th “C” are already trained to adapt their curriculums and syllabuses under the implementation of ICT
- To evaluate if EFL teachers at this school are using or not ICTs in their classes
- To study the relationship between students-ICTs from the students and the EFL teachers´ perspective

1.4. Research Problem

The problem of this research paper is figured out by the following question: “are EFL teachers of the 6th “A”, “B”, “C” and “D” of Escuela Técnica N°1 J.B. Alberdi currently trained to integrate ICts in their classes?

1.4.1 Research Questions

The following questions are helpful in order to fulfill the objectives of this research:

In which way are English teachers at Escuela Técnica N°1 J.B: Alberdi qualified so as to give their classes using technology?

What ICTs devices are available to be used in EFLT classes in this school?

How is CALL implemented currently in 6th year of the secondary school in this institution?

Is MALL a feasible tool at the time of putting VLE into practice?

Is Blended Learning really working in EFLT in this school?

Has Web-Based Research been used appropriately in EFLT?

Are both teachers and students at this school ready to change their traditional classes into an Online Environment?

1.5. Hypothesis:

EFL teachers from Escuela Técnica N°1 J.B. Alberdi are not prepared to implement ICT devices in their subjects yet.

1.6. Keywords

The following keywords will be analysed in depth so as to understand the extent of the research paper. The keywords are *Technology, ICT (Information and Communication Technologies), Computer Science, CALL (Computer Assisted Language Learning), MALL (Mobile assisted language learning), VLE Virtual learning environment, Blended learning, Web-based Research,* and *Online- learning environments.*

1.6.1 Technology

Technology is such a complex word that we could define it in infinite ways. For instance, the author Hughes claims that "[t]echnology is messy and complex. It is difficult to define and to understand. In its variety, it is full of contradictions, laden with human folly, saved by occasional benign deeds, and rich with unintended consequences." (2004:1). Then, he concludes that technology is "a creativity process involving human ingenuity." (2004:3).

Furthermore, there are other conceptions of technology which will help us to understand the width of its field. Brian Arthur (2009:28) sketched out three conceptions of technology:

1) "The first and most basic one is a technology is *a means to fulfill a human purpose*. … As a means, a technology may be a method or process or device… Or it may be complicated… Or

it may be material… Or it may be nonmaterial. Whichever it is, it is always a means to carry out a human purpose."

2) "The second definition is a plural one: technology as an *assemblage of practices and components*."

3) "I will also allow a third meaning. This technology as the entire *collection of devices and engineering practices available to a culture*."

Therefore, the term technology is an intertwined concept which involves many other intrications. Later on, we will see its applications regarding the education field

1.6.2 ICT (Information and Communication Technologies)

According to Chandra (2003:184) ICTs are a "diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information." Thus, "because access to digital tools, applications, and networks continue to grow worldwide and media are increasingly available in digital form, ICT in education can be expected to increase dramatically".(2003:184). Relating the latter concept with education in depth, it is said that "[…] teachers are not prepared to use ICTs and the majority of existing school buildings are, even in the most developed countries, are not equipped to integrate the new information and communication technologies" (2003:185)

1.6.3 Computer Science

In the view of Mississippi State University "Computer Science is the study of principles, applications, and technologies of computing and computers. It involves the study of data and data structures and the algorithms to process these structures; of principles of computer architecture-both hardware and software; of problem-solving and design methodologies; of computer-related topics such as numerical analysis, operations research, and artificial intelligence; and of language design, structure, and translation technique. Computer Science provides a foundation of knowledge for students with career objectives in a wide range of computing and computer-related professions."

Not so far in time, there were some constraints about the limitations of Computer Science having to do with the uncertainty dealing with whether conceiving Computer Science as a science or not. Hal Abelson and Gerry Sussman, who identify with the

mathematical and engineering traditions of computing, said, "Computer science is not a science, and its ultimate significance has little to do with computers". (2005:29).They believe that the ultimate significance is with notations for expressing computations.

All in all, "the objection that computing is not a science because it studies man-made objects (technologies) is a red herring. Computer science studies information processes both artificial and natural." (Denning, 2005, 28)

1.6.4 CALL (Computer Assisted Language Learning)

Levy defines CALL as "the search for and study of applications of the computer in language teaching and learning" (1997:1). Professor Davies defines CALL as "an approach to language teaching and learning in which the computer is used as an aid to the presentation, reinforcement and assessment of material to be learned, usually including a substantial **interactive** element." (2016)

In other words, CALL is a form of computer-based learning which carries two important features: bidirectional learning and individualized learning. It is a tool that helps teachers to facilitate the language learning process and it can be used both to reinforce what has been learned in the classrooms and to help learners with limited language proficiency.

1.6.5 MALL (Mobile assisted language learning)

Klopfer and his colleagues state the following properties of mobile devices:

1) portability: such devices can be taken to different places due to small size and weight;

2) social interactivity: exchanging data and collaboration with other learners is possible through mobile devices;

3) context sensitivity: the data on the mobile devices can be gathered and responded uniquely to the current location and time;

4) connectivity: mobile devices can be connected to other devices, data collection devices, or a common network by creating a shared network;

5) individuality: activities platform can be customized for individual learner. (2012:310).

For example, the settings in which Mobile learning can take place are in Miangah&Nezarat´ s words "[…] either within the classroom or outside it. In the former case, mobile phones possessing appropriate software are very effective in collaborative learning among small groups." (2012:311). Nevertheless, Mobile learning technology is more useful for doing activities outside the classroom because of the learners´ chance to make profit of their free time by means of their mobile phones.

1.6.6 VLE Virtual learning environment

As stated by Oxford University Press, "Virtual Learning Environment (VLE) is a system for delivering learning materials to students via the web. These systems include assessment, student tracking, collaboration and communication tools. They can be accessed both on and off-campus, meaning that they can support students' learning outside the lecture hall 24 hours a day, seven days a week. This enables institutions to teach not only traditional full-time students but also those who cannot regularly visit the campus due to geographic or time restrictions, e.g. those on distance learning courses, doing evening classes, or workers studying part-time."

Oxford University press also recognizes four main types of VLE:

• Blackboard (not so known or even unkown in our country yet)

• WebCT (acquired by Blackboard in 2006) (idem)

• Moodle (widely used in our country)

• Universities' own bespoke systems (already in use in Argentinian universities)

1.6.7 Blended learning

According to Gunjant Nishant, Blended Learning refers to "learning models that combine traditional classroom practice with e-learning solutions. For example, students in a traditional class can be assigned both print based and online materials; have online mentoring sessions with their teachers through chats and subscribed to a class e-mail list." (2014).

UNESCO recognizes that "[t]hese technologies have great potential for knowledge dissemination, effective learning, and the development of more efficient education services".

1.6.8 Web-based Research: the Internet as information source

According to Stapleton (2003, 2005a), study-related internet use by EAP students most often involves information searches. It has become quite normal for EAP students to use web-based information as content for course assignments such as research essays and presentations, and they will very likely continue to do so in their academic careers.

Jarvis points out that nowadays students of the 21st century require "the necessary language and electronic literacy skills so that they might successfully function in English in an academic environment". That is why "[t]asks in the group project include submission of a report and an oral presentation. Groups undertake web-based research on their chosen topics of interest, write draft reports, consider feedback from classmates and instructors by sharing and collaborating on drafts posted on the course website, and deliver a presentation based on the final paper." (2009: 52)

1.6.9 Online- learning environments

The online learning environment is primarily an asynchronous environment – that is, you don't have to log on to the computer at exactly the same time as your instructor or classmates in order to attend class. You will however, have specific deadlines to meet for the reading assignments and learning activities. How do you attend an on-line class? It is suggested that you access the course on a daily basis in order to read e-mail messages, read and respond to postings, and keep up with course information. You can also socialize through the net, collaborate with other students, ask questions and receive feedback from your teacher through this original means of study. It is a term much related to the notion of VLE (Virtual learning Environment).

CHAPTER 2

2. Theoretical Framework

2.1 Background

2.1.1. Previous studies

Referring to the use of ICTs in Argentinian classrooms, a research made by the Valencia International University (VIU) shows that there are some interesting new data about the use of ICTs in 5 European and 5 Latin-American schools and Argentina is among the 5 latter.

The research has been called “Equipment and use of ICTs in European and Latin-American educational centres” and it shows how much the implementation of the use of new technologies has arisen at schools worldwide. In Argentina, due to the implementation of Programa Conectar Igualdad in 2010, each of the teachers and pupils belonging to Secondary and Tertiary level has been given a Netbook. By the end of 2014, 4, 705, 613 of netbooks were delivered.

The study was based upon the data collected in 5 European countries- United Kingdom, Germany, France, Finland and Spain- and 5 Latin-American ones-Argentina, Brasil, Costa Rica, Chile and Uruguay. Three factors were analyzed: the technological equipment of schools, the integration of ICTs in syllabuses in the different stages in the different Educational Systems and the use of these tools in schools made by teachers and students. Regarding the use of ICTs in classrooms, even though this fact is still in progress in most of the educational institutions in Latin-America, Argentina has created its first educational portal, **Educar**, which has been of public access throughout the country sin the year 2000.

In the view of the research, Argentina has on average 59 students per Netbook in Primary level and 1 student per Netbook in secondary level whereas in the rest of Latin-

American countries they have on average 27 students per personal computer in primary level and only 17 in secondary level under the best circumstances.

29% of Argentinian primary schools have Internet connectivity. Therefore, as regards secondary schools, the Programa "Internet para Establecimientos Educativos" has been created under the **Programa Conectar Igualdad**. Its main objective is to guarantee free Internet connectivity in every school taking priority those where Conectar Igualdad is already working. The installation connectivity is made up gradually but, it is expected that it will be done in all of the Argentinian schools. In the case of Uruguay, its current situation is the best compared to the rest of the Latin-American countries because 95-96% of its schools already have Internet connectivity. With regard to broadband connectivity in Argentina, 17% of the primary schools and 33% of the secondary schools have this type

In sum, every student is Argentina has a Netbook.

The Instituto Nacional de Estadística y Censos **(INDEC)** claims that the use of the ICTs equipment at schools made by students in Argentina is done by the 86.6% of the children between 10 and 14 years old who use the personal computer for educational purposes. This fact is really good since 79.6% of them uses it for fun. Moreover, only 34% of the students uses his/her netbook at schools since there is a strong tendency to use it at home. Besides, the study shows that 31.2% of Latin-American students use their netbook once or twice a week at school whilst only 29.8% of the Argentinian pupils uses it weekly and 55.8% of the scholars has never used his/her netbook. For instance, Costa Rica is at the top of the ranking due to the fact that 52% of its students uses their netbooks weekly.

Finally, as to the weekly use of the netbooks in educational settings, 17% of the teachers uses netbooks weekly whereas 22.3% never uses them. By the case, Chile is the best since 43.8% of the teachers there uses a computer weekly and only a minimum number of 6.5% of them never does.

Furthermore, secondary students from Tucumán gave a conference about the use of new technologies last year. Five schools were involved in that conference showing their ICT projects during the meeting "Jóvenes Conectados".

An electronic voting system to choose representatives in the Students´ Comitee. A spot in stop-motion about human trafficking. A helpful portal about laboral law and child labour. A short film about Argentinian immigration and another one about Santa Rosa de Lima. A community social Project in which students went to the country to teach how to use netbooks. These were some of the works that represented the following schools: Barrio Rincón del Este (Alderetes), Media de San Pablo, Ciudadela (capital), Santa Rosa de Lima (Concepción) and Comercio Octavio Luna (Famaillá). These 5 schools also participated in the regional meeting of the programa "Jóvenes Conectados" and represented 55 other schools which are part of that programa from the Ministry of Education. The head office of that meeting was the Centro de Innovación e Investigación para el Desarrollo Educativo, Productivo y Tecnológico (Ciidept) where 200 young students and 50 teachers met in order to share their experiences during the last 3 years under the programa "Jóvenes Conectados". This is an idea that fosters students to develop intervention projects in communities using new information and communication technologies (ICTs).

The meeting started at 9 and finished in the evening. Therefore, apart from the projects, students could have access to 4 workshops to enhance their relationship with technological appliances. The workshops had to do with audiovisual production of contents and multimedia sources. Moreover, Conectar Escuelas and a portal aimed at install a school net throughout the educational community to share activities, doubts and experiences were introduced officially. The website is **http://conectandoescuelas.tictucuman.net/**

Secundaria2.0

Today, at 11.30 am, the Minister of Education, Silvia Rojkés de Temkin, is going to introduce Secundaria 2.0, a strategic tool to guarantee the education of Young people between the ages of 14 and 17 years old who due to different reasons and circumstances quit their compulsory level of education. This strategy particularly focuses on the development of competences related to technology and students as well as the effective interaction, monitoring and evaluation of educational processes. The display will be in Salón Blanco at the Government House.

2.1.2. Recent studies

The National Culture and Education Ministry carried out research and analysis devices in regard to the use of ICTs in different provinces where schools are already computerized (digital classrooms) and have received bibliographical material for the implementation of digitalization in them. The conclusion with respect to these schools is that teachers need more training courses in order to elaborate computing programs applicable to the pedagogical areas they tackle at secondary schools.

Investigations developed by educationists who worked in depth about the incidence of the ICTs phenomena in secondary schools determined that teachers are eager to have training on the use of ICTs so as to elaborate programs and transmit their students the real use of computers in the teaching-learning process.

Our educational institutions and their communities have currently the necessity to find a new role taking into account the social, scientific and cultural changes of our times and because of this, they need to adapt into the changing and dynamic reality in order to answer the daily individual and collective situations with which they are continually exposed to. There are strong requirements related to social, economic and laboral aspects and due to them, an optimization of education quality and more training dealing with ICTs are imminent.

Academic contents regarding the ICTs field must be practiced and given permanently through the use of tools such as netbooks as a resource of the teaching-learning process. These contents must be supported properly as well as new strategies strengthening critical, valuable and reflective contents must be applied. New terminology like “hardware, PC, operating systems, text processors, Intel Core among many others are a “REAL CHALLENGE.”

Technological culture could be defined a cultural substrate which is common to vast social groups. It is not a culture that is specific for a restricted professional or academic group. This technological culture is part of a social group built by representations, rules, ideas, values, communication systems and behavior patterns having to do with the relationships between the members of that group and technological systems.

In other words, any human group who uses a computer, electricity, etc…has a certain technological culture. Educational systems are trying to get a proper technological culture which contributes to the welfare group. The relevant point as regards computerization is its learning support increasing day after day. This fact means that lack of information in scientific computing issues is a type of illiteracy which may not be allowed by any developed and fair society. It is important to mention that the evolution of technology is so fast that its field is being renewed continually and this circumstance leads to the necessity of permanent training.

As Vattimo (1990:112) acknowledges, "a society is mainly characterized by ICTs because we live in an informatized society full of microprocessors on the onset of the micro age". Otherwise, Bruner (1991) points out that "the information era is based on computers and nets connecting the former ones whereas communication makes the difference as long as computer technology increases the chances of new meaning constructions and the sharing of symbolic systems in several ways".

This highly evolutional dynamics clearly shows the upcoming influence of ICTs in all of their dimensions in our societal and cultural contexts. Consequently, the solving of educational problems must overcome traditional current formulae and integrate the benefits of technological advances.

In the view of Sil Cok (1993) "as regards educational contexts one of the basic factors in teaching is the maximization of communication between teachers and students". Paradoxically, Salomón (1991) says that "informatization may subserve this maximization through exploration, communication, curricular integration, curricular variation and teachers and students´ autonomy." The term *informatization* was born in France in 1962 and it is the contractive form of the combination of two other terms: *information* + *automation.*

The Royal Spanish Language Academy defines informatization as a set of scientific and technical knowledge which make the automatic processing of information possible through electronic devices.

In Anglo-Saxon countries this terminology is equivalent to ***computer science.*** Computer sciences have been defined as abstract sciences which create the correct model for a problem and design appropriate mechanization techniques to solve it. The standard components of informatization are: hardware, software and humanization.

Computers enrich students´ learning in multiple ways:

- ✓ By making learning more practical
- ✓ By improving the accessibility to information
- ✓ By focusing on tasks using higher skills
- ✓ By making a more adjustable adaptation possible according the students´ needs
- ✓ By tackling knowledge as a more provisional issue
- ✓ By stimulating the use of ICTs

ICTs ´ intentions in educational settings are:

i. To develop and communicate ideas
ii. To create, store, interpret and introduce information
iii. To make students be able to evaluate the impact of ICTs on them

One of the main problems concerning teaching is that students usually are more interested in ICTs than teachers are.

Due to the rapid evolution of ICTs, it is difficult to establish a classification of their profits since the number of ecological niches occupying ICTs increases noticeably. As stated by Kinzr (1986) "there are two remarkable categories:

- Computers as a curricular learning goal which, in the initiation phase belongs to what is known as computerization literacy. Generally, this sort of learning has to do with knowledge about hardware and software involving programming languages.
- Computers as a learning means which belongs to those applications destined to the acquisition of conceptual, procedural and attitudinal curricula knowledge.

2.1.2.1 1-to-1 Learning

Learning in a 1-to-1 is an active and student centered environment opening up new possibilities. Since each learner has access to a portable, networked digital device, such as a notebook or tablet, each learner is connected with their teacher and other learners or experts through real-world contexts for learning, multimedia resources, software, online tools and applications.

2.1.2.2. 1-to-1 learning in Argentina

As described by UNESCO "the 1 to 1 model is a commitment for educational quality and equality is a publication produced by the Ministry for Education of Argentina and the International Institute of Educational Planning of the Buenos Aires Regional Office addressed to high school management teams that are starting to implement 1-to-1 learning environments.

Its objective is to provide orientation and help to reflect on important issues related to ICT management, such as the characteristics of teaching and learning in the new millennium, and the new institutional formats and the teacher's role. It also promotes decision-making to plan for ICT integration in the institution, its implementation, follow-up and evaluation."

2.1.2.3 Connecting Equality (Conectar Igualdad)

Argentina has been one of the latest countries in Latin-America to incorporate 1-to-11 learning successfully. The Government initiative *Conectar Igualdad* has the principal goal of promoting equal opportunities to every young student through netbook devices which allows the reduction of the digital gap besides the incorporation and commitment of family members with an active participation in the program.

Its specific objectives are:

- To train responsible people able to use knowledge as a tool for the constructive comprehension and transformation of their social, economic and cultural contexts and get involved as active participants in a permanent changing world.
- To develop fruitful competences for the management of new ICTs languages.
- Conectar Igualdad was meant to expand into 100% of public secondary schools, 100% of schools for disabled people and into 100% of tertiary schools. In the latter ones the implementation of 1-to-1 learning corresponds to mobile digital classrooms for students who are preparing to become teachers shortly after.

2.1.2.4 Technological Pedagogical Content Knowledge (TPACK)

Expert teachers are those who can bring together their deep knowledge of subject matter with profound understanding of what is good for learning. The combination has been described as Pedagogical Content Knowledge (PCK) and is more than the simple addition of two parts. The fusion is what enabled expert 20th century teachers to transform

subject content and represent it in ways that made it accessible to individual learners in their specific contexts. (Mishra&Koeler, 2011)

Expert teachers now are those who can bring together knowledge of subject matter, what is good for learning, and technology (ICT). The combination is described as Technological Pedagogical Content Knowledge (TPACK). It is more than simply adding ICT to traditional approaches. It depends upon deep knowledge of how ICT can be used to access and process subject matter (TCK) and understanding how ICT can support and enhance learning (TPK) in combination with PCK.

2.1.2.5 TPACK in Argentina

The implementation of 1-to-1 learning seeks to ensure the transformation of educational settings through the participation of every citizen of the information/knowledge society. To comprehend the scope of this approach allows the overcoming of false dilemma regarding the purpose of ICTs on education and to integrate them into interactions intensifying reading, writing, listening and speaking practices. EFL teachers have understood rapidly that the integration of digital assistance and virtual contexts motivates scholars to such an extent that they generate authentic meaningful interactions.

1-to-1 learning turns the lesson into an *increased classroom* because it complements virtual learning e.g. blog, shared folder, portfolio, virtual classroom, social network reconfiguring time and physical conditions. Nonetheless, 1-to-1 learning permits the creation of conditions for autonomous learning owing to through students-net interactions, students become conscious about their strategies and competences they are provided with; their ability to use those skills (…) according to the task to be done (… and they have access to external resources so as to compensate personal deficits (Ollivier, 2007). Under these circumstances, we have to rethink our teachers´ role in order to go along with the construction of management information and learning competences (Ollivier, 2011). On the other hand, teachers´ work is becoming transformed by virtual environments where it is likely to promote collaborative tasks and projects; establish clear cohabitational work patterns and rules to accomplish knowledge renewing democratization (Feldman, 2010).

The query is then…how to design teaching? A possible reply is TPCK**5** which states that the academic use of technology requires the articulation between technological and curricular knowledge to understand the ways in which technology either limits or ease representations, explanations and methods of each discipline. The academic use of technology also requires technological and pedagogical knowledge to choose and apply pedagogical strategies allowing the maximum exploitation of the available educational technologies. The ICTs lessons design involves three types of decisions and interactions (Sagol, 2012): curricular decisions (defining the topic and learning objectives), pedagogical decisions (kind of activities, expected productions, teachers and students´ roles, evaluation strategies) and technological decisions (what to integrate ICTs in this sequential path: pedagogical needs, resources and the use of resources).

Based upon this model, it is possible to build up new types of teaching-learning techniques changing the traditional lesson into an ICTs one in which is built more and better collaborative work. Doubtlessly, both 1-to-1 learning and TPCK create new different chances of thinking of academic work. Sagol (2012) develops those chances into eight aspects: teaching by publishing contexts, by social networks, by multimedia materials, by weblogs / blogs, by projects, by collaborative works and by teaching for information management.

It is obvious that new knowledge relationships are constructed through multiple tasks such as watching films, writing multimedia texts, etc…and *participating moments involving virtual learning environments, real or postponed time in collaboration with other aspects.*

According to Dussel (2011) "(…) the teaching-learning process is being redefined both in its material structure and in its interaction forms. There is not only one way of interaction under the teacher´ s control anymore. Conversely, there it exists a multiple communication process which demands much more attention and the ability to provide students with immediate feedback."

Additionally, some clues are given in order to integrate ICTs into EFL lessons in the first years of secondary level of education:

"To adjust into a space situation, localization and referent points", the application Google Maps is useful to locate place and to obtain and provide information or references. For instance, to locate a particular school or city on a map, to indicate how to get a to fellow´s party; to show a specific itinerary to a tourist, etc… therefore, students could be

challenged to add or edit information in the former maps. The collaborative performance of a lesson could be published in a website so as to share it with other classes or to continue working collaboratively.

Authentic writing: participation in blogs and forums among many other possibilities of intervention in virtual learning environments allows that writing has a full sense and becomes into a social practice. Students could also be challenged to publish a comment using EFL and any website. For example, they could be challenged to type a constructive critical analysis about certain books or films, or to comment in the official site of a particular celebrity. These activities triggers students´ genuine concerns regarding their productive writing even though the production outcome is brief or has simple structures.

2.2. EFL (English as a Foreign Language)

EFL involves English language programs in countries where English is not the common or official language. It is used in American university programs where international students study English although the use of the word “foreign” is now avoided in some schools because of its xenophobic connotations (definition of ITTO- International Training Teaching Organization)

In other words*, EFL* indicates the teaching of English in a non–English-speaking region. Study can occur either in the student's home country, as part of the normal school curriculum or otherwise, or, for the more privileged minority, in an anglophone country that they visit as a sort of educational tourist, particularly immediately before or after graduating from university. In the case of this present research work the focus is entirely in the former situation.

Typically, EFL is learned either to pass exams as a necessary part of one's education, or for career progression while one works for an organization or business with an international focus. One again, a consideration is necessary here so as to affirm that this paper deals with students who belong to the first group of categorization. As Braj Kachru (1985) states “EFL may be part of state school curriculums throughout *expanding circle countries* i.e. countries where English has no special status. Teachers of EFL generally assume that students are literate in their mother tongue.”

This research work attempts to comprehend how technology is used nowadays in an EFL classroom, the advantages and disadvantages of such implementation and the real outcomes and shortcomings of these innovative methods and techniques in the teaching-learning processes at Escuela Técnica N°1 J.B. Alberdi in Tucumán.

2.3 ELT (English Language Teaching)

ELT is the teaching of English to speakers of other languages (Definition of Cambridge Dictionary). Similarly, it could be said that English language teaching (ELT) is a widely used teacher-centred term, as in the English language teaching divisions of large publishing houses, ELT training, etc.

Theorists in ELT methodology were recognizing that the traditional linguistically-driven teaching methods aimed at learning a general English would not adequately prepare non-native speakers to use language effectively in discipline specific academic contexts. As Flowerdew and Peacock (2001:11) write, 'What was needed was an approach to language teaching which was based on descriptions of the language as it was used in the specific target situations.'

Nowadays, the practices of the teachers are truly innovative for their particular contexts. This perspective on innovation places less emphasis on the technology itself, and more emphasis on teacher practice. In each situation, the teacher's approach to technology integration is rooted in learning needs emerging from the immediate teaching context, rather than an arbitrary teacher-centred decision to simply use a new technology in the classroom. This approach allows the teachers to maintain a focus on pedagogical goals and the learner needs which inform these goals, as they explore how to effectively integrate technology into their teaching practice and maximize the learning opportunities for their students.

Three key concepts from the ELT literature are appropriate here: *cognitive* and *metacognitive strategies*, learner *autonomy* and *output*.

a) Cognitive strategies: (…) are one type of learning strategy that learners use in order to learn more successfully. These include repetition, organizing new language, summarizing meaning, guessing meaning from context, using imagery for memorization. (Definition of British Council)

Example: a learner remembers new words by visualizing them represented in a memorable or ridiculous situation. This makes it easier and faster to recall these words.

Activities which can be described as cognitive strategies include making mind maps, visualization, association, mnemonics, using clues in reading comprehension, underlining key words, scanning and self-testing and monitoring.

b) Metacognitive strategies: the Inclusive Schools Network in their 2005 definition of metacognitive strategies point out that: they refer to methods used to help students understand the way they learn; in other words, it means processes designed for students to 'think' about their 'thinking'.

As students become aware of how they learn, they will use these processes to efficiently acquire new information, and consequently, become more of an independent thinker. Below are three metacognitive strategies, which all include related resources that can be implemented in the classroom:

1) Think Aloud: Great for reading comprehension and problem solving. Think-alouds help students to consciously monitor and reflect upon what they are learning. This strategy works well when teachers read a story or problem out loud and periodically stop to verbalize their thoughts. This allows students to follow the teacher's thinking process, which gives them the foundation they need for creating their own strategies and processes that can be useful for understanding what they are trying to comprehend.

2) Checklist, Rubrics and Organizers: Great for solving word problems. These organizational tools support students in the decision-making process because they serve as an aid for planning and self-evaluation. Typically they ask what students know and need to know to arrive at an answer, and emphasize the need to reread the problem and self-check responses.

3) Explicit Teacher Modeling: Great for math instruction. Explicit teacher modeling helps students understand what is expected of them through a clear example/model of a skill or concept. When a teacher provides an easy to follow procedure for solving a problem, students have a memorable strategy to use for approaching a problem on their own. (Definitions and examples given by Inclusive Schools Network)

c) Autonomy: according to Reinders (2010) “Learner Autonomy is:

- First and foremost, a mindset. A way of thinking about learning as a journey where you decide where to go, and how to travel.

- An intimately personal affair. It is about your life, about what you want to achieve, and what you enjoy. In this way, it is the only way to learn successfully in the long term.
- Because no one knows you better than you do, and no one can make your choices for you, autonomy requires you to get to know yourself better.
- A process of discovery.
- About you and starts from within you, it cannot be forced upon you.
- You, and you alone, can make the decision to start this journey.
- Thus about freedom, both freedom from being told what to do, and the freedom to do what you think is best.

d) Output: is, to use language in meaningful ways to communicate meaning (Swain, 1985; among others).

Output is also required for final performance assessment tasks, or "culminating synthesis activities," as Stoller (2002) calls them.

According to Swain (1995), there are three functions of output:

1. *The noticing/triggering´ function or conscious raising role:* In producing the target language, learners may encounter a linguistic problem leading them to notice what they know or know partially,
2. *The hypothesis-testing function*: learners may use their output as a way of trying out new language forms and structures as they stretch their interlanguage to meet communicative needs; they may output just to see what works and what does not. That immediate feedback may not be facilitative or forthcoming does not negate the value of having experimented with their language resources, and
3. *The metalinguistic function or ´reflective role´*: when learners reflect on the language they produce, learning will result.

2.4.1 Technology

According to Motteram (2013: 45) “there has been a tremendous growth of information communication technologies (ICT) across the board in recent years”. In one study of the effect of ICT implementation in schools, Ilomäki (2008: 67) found two types of ‘ICT stories’. The first saw expectations for ICT being overestimated in the majority of cases, with the process of implementation being top-down and ‘without a strong commitment of the schools or the teachers’. In some cases, however, success came when the focus was

placed on the needs of a specific school and was supported by internal improvement of that school. The effect of supporting teachers and on training teachers to use ICT can also not be underestimated.

In many cases, however, this training is not given, and more likely than not, teachers are left to their own devices. More and more, it is a certain type of individual teacher who takes the initiative and implements technology into their classrooms. (…)Generally, these teachers are using readily available, free online tools and are finding out how to use them through social networks and online *communities of practice* (Lave and Wenger, 1991: 98). These teachers build their own *personal learning network* (Couros, 2008) and connect with other teachers around the world to share what they know and help others learn.

In order to make the concept of communities of practice clear, Wenger´s definition is added: "Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly." In fact, these communities allow but not necessarily require intentionality. Thus, learning can be achieved incidentally since it accompanies the social processes being involved.

There are three required components of communities of practice:

1. *A shared domain of interest* (e.g. English language). To be a member implies a commitment to the domain.
2. A *community*. It is necessary that members of a specific domain interact and engage in shared activities, help and share information with each other. They should be capable of learning from each other. Nonetheless, working together daily is not compulsory aspect.
3. *A practice*: members must be *practitioners* in the way they share repertoire of resources over time including stories, helpful tools, experiences, stories, ways of handling typical problems, etc. A variety of methods is used by members of communities such as problem solving, requests for information, seeking the experiences of others, reusing assets, coordination and synergy, discussing developments, visiting other members, mapping knowledge and identifying gaps.

A Personal Learning Network is "a network of trusted connections with whom an individual interacts (and learns from) on a regular basis." (Jane Hart, 2014).

In other words, through your PLN you can gather, collect, communicate, create and also share knowledge and experience with a group of connected people, anywhere at any

time. It is developed largely by means of social media, such as Twitter, LinkedIn, Facebook, and blogs.

2.4.2 Technological Resources

Aside from Web 2.0, more traditional uses of ICT continue too. Jewell points out that many stand-alone applications such as word processing and presentation software (for example *Microsoft PowerPoint*) can be used effectively by secondary school learners to 'improve their language skills through research and by sharing their findings in oral presentations' which also 'provide real-world contexts and technological skills and enable students to develop confidence in their language abilities' (2006: 176).

Here are some ELT assessment mode and tools suggested by and for teachers

What tools are teachers using? How are they being used?

Writing tools

a) www.blogger.com

Blogger is a free blogging tool from Google. Students can use it to keep diaries, write stories, reflect on classes. Teachers and peers can easily leave comments. Students can develop communities.

b)http://wordpress.com/

Another very popular blogging tool that is also free. Slightly more sophisticated than Blogger it provides all the same elements as Blogger but with perhaps a better look and feel. Versions of WordPress can be downloaded onto your own server, so that they can be customized for a school and plugins added to extend their capabilities.

c)http://pbworks.com/

Wikis: A great way of providing a platform for collaboration and sharing. Wikis are websites built by groups of students rather than individuals. They allow for collaborative writing exercises where students can edit and review their work and the work of others. Information about the creation of a wiki allows the teacher to easily see who has contributed and who hasn't.

d)https://tricider.com/en/t/

Tricider is a quick and simple discussion board that allows students not only to add their own ideas but also to comment on the ideas of their peers. Good for brainstorming, debates, essay preparation and drafting.

e)http://wallwisher.com/

Wallwisher is a website that provides a sort of collaborative electronic board where students can add up comments, pictures, video and links around a given theme. Great for brainstorming, preparing essays and projects, and sharing ideas.

Reading online content

a) www.breakingnewsenglish.com/

BreeakingNewEnglish is a useful website of reading and listening content that is very topical and related to recent news events. The site includes whole lesson plans built around the content, but the content can easily be adapted to use for assessments.

b) http://listenaminute.com/

Listenaminute is another source of reading and listening content that can be easily adapted for assessments.

Listening online material

http://elllo.org/

Elllo English is a huge collection of monologues and dialogues from a whole variety of speakers which can easily be used for assessment purposes.

Audio/speaking practice

a) http://vocaroo.com/

Vocaroo is a simple audio tool that can allow for five minute recordings at the click of a button. Recordings can be shared via email, embedded in a blog, wiki or virtual learning environment or even downloaded.

b) http://voicethread.com/

Voice Thread is an excellent tool that can be used collaboratively. Students can add written or audio comments concerning an image, video or document.

c) http://mailvu.com/

Mail Vu is a simple audio tool that also uses the webcam facilities of a computer. Allows for simple webcam recordings in pairs or groups and can be useful for pair work assessments.

d) www.voxopop.com/

Voxopop is an audio tool works like a discussion board but with recordings. Teachers or students can set up questions and students can add their oral answers, replies or comments. Useful for oral work, discussions, brainstorming, opinions etc.

e) www.brainshark.com/mybrainshark

myBrainShark is a versatile tool that allows you to upload videos, pictures, PowerPoint presentations or documents and then add your voice to them and share the recordings via email, or embed them into a blog or Moodle site.

Virtual learning environments

a)https://moodle.org/

Moodle is an online virtual learning environment that is used in many higher education institutions. Allows for a huge range of assessment possibilities but has generally been used for writing and feedback. Has chat rooms, forums which can also be used for assessment purposes. Teachers can also create online quizzes and tests that students can use to evaluate their progress and use formatively.

b)www.edmodo.com/

Edmodo is a free online virtual learning environment that teachers can set up on their own by simply submitting their email address. Great for sharing, discussions and brainstorming. Allows for upload of assignments and drafts and quick feedback.

Quiz making tools

www.proprofs.com/quiz-school/

Pro-Profs is a free online quiz maker. It could be used to make formative and periodic assessments

2.5 Digital inclusion

According to Digital Inclusion Survey (2013-2015) while *digital divide* and *digital literacy* have entered into common use, the term *digital inclusion* is still quite new. Digital inclusion is a much broader category that addresses the other two. Importantly, “digital inclusion” has been articulated to issues such as opportunity, access, knowledge, and skill at the level of policy. Furthermore, it is meant to signal a focus on a practical, policy-driven approach that addresses the needs of communities as a whole. In short, digital inclusion

is a framework for assessing and considering the readiness of communities to provide access to opportunities in a digital age.

The ubiquity of the Internet poses challenges and opportunities for individuals and communities alike. These challenges and opportunities have not been evenly distributed. Digital technology has opened new domains of exclusion and privilege for some, leaving some populations isolated from the vast digital realm.

Success in the increasingly digitized social and economic realms requires a comprehensive approach to fostering inclusion. Digital inclusion brings together high-speed internet access, information technologies, and digital literacy in ways that promote success for communities and individuals trying to navigate and participate in the digital realm.

Digital inclusion involves three facets which are the ultimate goal of creating digitally inclusive communities.

- ***Access:*** Availability, affordability, design for inclusion, and public access.
- ***Adoption****:* Relevance, digital literacy, and consumer safety.
- ***Application****:* Economic and workforce development, education, health care, public safety and emergency services, civic engagement, and social connections.

Libraries help the promotion of digital inclusion in four ways:

- By providing free access to public access technologies (hardware, software, high-speed Internet connectivity) in their communities.
- By providing access to a range of digital content to their communities.
- By providing digital literacy services that assist individuals navigate, understand, evaluate, and create digital content using a range of information and communications technologies.
- By providing programs and services around key community need areas such as health and wellness, education, employment and workforce development, and civic engagement.

Even though libraries have done much to adapt to both the vast technological and social changes attached by the Internet over the past two decades, much more work is still to be done for the future.

2.6 Teachers´ technology skills

In the view of Laura Turner (2005) there are 20 basic technology skills that all educators should now have:

1. Word Processing Skills: Educators should be able to use some type of word processing program to complete written tasks in a timely manner e.g. Word-Microsoft Office

2. Spreadsheets Skills: Educators should be able to use some type of spreadsheet program to compile grades and chart data e.g. Excel-Microsoft Office

3. Database Skills: Educators should be able to use some type of database program to create tables, store and retrieve data, and query data e.g. Access-Microsoft Office

4. Electronic Presentation Skills: Educators should be able to use electronic presentation software to create and give electronic presentations e.g. PowerPoint-Microsoft Office)

5. Web Navigation Skills: Educators should be able to navigate the World Wide Web and search effectively for data on the Internet e.g. Google, Yahoo, etc…

6. Web Site Design Skills: Educators should be able to design, create, and maintain a faculty/educator Web page/site e.g. Webnode

7. E-Mail Management Skills: Educators should be able to use e-mail to communicate and be able to send attachments and create e-mail folders e.g. Outlook Express

8. Digital Cameras: Educators should know how to operate a digital camera and understand how digital imagery can be used.

9. Computer Network Knowledge Applicable to your School System: Educators should know the basics of computer networks and understand how their school network works e.g Edmodo

10. File Management & Windows Explorer Skills: All educators should be able to manage their computer files and be able to complete the following tasks; create, and delete files and folders, move and copy files and folders using the My Computer window and Windows Explorer.

11. Downloading Software from the Web (Knowledge including eBooks): All educators should be able to download software from the web and know of the major sites that can be used for this purpose e.g. Adobe Acrobat Reader

12. Installing Computer Software onto a Computer System: Educators should be able to install computer software onto a computer system.

13. WebCT or Blackboard Teaching Skills: Educators should be aware of these two online teaching tools and know about them and/or know how to use them to teach or take classes

14. Videoconferencing skills: Educators should be able to use a video conferencing classroom and understand the basics of teaching with Video Conferencing e.g Skype

15. Computer-Related Storage Devices (Knowledge: disks, CDs, USB drives, zip disks, DVDs, etc.): Educators should understand and know how to use them

16. Scanner Knowledge: Educators should know how to use a scanner.

17. Knowledge of PDAs: (Personal Digital Assistant): Educators should now what a PDA is and who to use one e.g. pocket computers

18. Deep Web Knowledge: Educators should know what the deep web is and how to use it as a resource tool e.g. HTML files

19. Educational Copyright Knowledge: Educators should understand the copyright issues related to education including multimedia and Web-based copyright issues e.g Creative Commons License

20. Computer Security Knowledge: Educators should know about basic computer security issues related to education

2.7 Collaborative Work

Collaborative learning can increase students' interest in learning (Dooly, 2008: 22), especially when the students are actively exchanging and negotiating ideas, engaging in discussion and taking responsibility for their learning.

It is important for there to be *group goals* and *individual accountability* (Slavin, 1989:231) and that each member of the group be responsible for a concept necessary for completing the task. Social interaction when working together can lead to students performing at higher intellectual levels than when working individually (Vygotsky,1978: 84).

Research by Swain (1985) on what has been called 'the output hypothesis' suggests that collaborative tasks may be the best way to get students to produce comprehensible output, because when working together students need to negotiate meaning, and as a result are supported in producing comprehensible output beyond their own individual level of competence. Social interaction can lead the learners to language development through interactional exchanges and negotiation of meaning.

Technology can facilitate this by making it easier for different groups of learners from different parts of the world to talk to each other. Collaborative learning is a method of teaching and learning in which students team together to explore a significant question or create a meaningful project. A group of students discussing a lecture or students from different schools working together over the Internet on a shared assignment are both examples of collaborative learning.

2.8.1 Communicative Approach

In terms of the British Council the communicative approach is based on the idea that learning language successfully comes through having to communicate real meaning. When learners are involved in real communication, their natural strategies for language acquisition will be used, and this will allow them to learn to use the language. For instance, practising question forms by asking learners to find out personal information about their colleagues is an example of the communicative approach, as it involves meaningful communication.

Classroom activities guided by the communicative approach are characterized by trying to produce meaningful and real communication, at all levels. As a result there may be more emphasis on skills than systems, lessons are more learner-centered, and there may be use of authentic materials.

The Communicative Approach is known as Communicative Language Teaching Approach and is one of the most effective approaches in the teaching and learning of languages. According to CLT principles, learning takes place only when the activities and tasks undertaken are comprehensible, contextualized, meaningful, and not mechanical. A student learns successfully when the input he or she receives from the teacher is related to his or her real life. To encourage this, the teacher should use materials that are authentic to daily life. Teachers of foreign languages need to use more photographs, videos, announcements, and real-life conversations such as extracts from TV interviews, telephone dialogues, magazine articles, etc.

Perhaps one of the most revolutionary concepts of the CLT approach is that the learner is given more importance than the teacher. The student is no longer a mere consumer of knowledge, and the teacher is no longer the omniscient bestower of wisdom. Rather, both parties are active participants who contribute to the learning process and who are responsible for their own learning. They are not passive learners who keep repeating what the teacher says in a mechanical way. Here, we can add that one of the main principles of CLT is to give more opportunities for the students to use the target language as much as possible.

For example, CLT advocates underlined that students should be encouraged to work in pairs and in groups. This group work is highly effective, as it leads to an interaction and negotiation of meaning between student and student and student and teacher. Therefore, instead of being merely the passive receivers of the teacher's input, students could produce knowledge and contribute it to the classroom. Fluency, and not accuracy, becomes a more crucial goal of learning. The mistakes made by the students are very much tolerated, at least in the beginning

Regarding examination patterns, before the shift to a more communicative approach to language learning, formal language exams had a very narrow focus. Reading assessment centered on comprehension while writing was little more than the parroting of learned formulae. No attention was paid to learning sub-skills like skimming and scanning, for example. The process of writing and organizing a text and planning it was almost ignored; the idea of portfolio assessment and doing drafts and re-drafts was almost non-existent. Most writing tasks were assessed in a similar way to grammar. The assessment criterion was the correct use of the language rather than the appropriate application of content, meaning and ideas. The interest was always on the product and not the process. Firstly, this form of assessment reflected the fact that it was being recognized that we needed to assess the oral skills of our students, but secondly it also reflected the fact that a lot of oral work in the classroom was being conducted in pairs as a communicative methodology began to creep into classrooms.

So, the paradigm shift in teaching and learning a language led to a paradigm shift in what we assessed too. By the beginning of the 1970s assessment had moved towards communication. We learn language so that we can communicate better with others. We stopped just focusing on grammar and developed a wider perspective that viewed

language learning in terms of ability to communicate and use the language. The term 'communicative competence' (i.e. our ability to communicate and put our ideas across either in the written or spoken form) became important. New skills were recognized as central to our ability to communicate, including the organization and planning of text, pronunciation, the ability to paraphrase, the ability to turn take and engage in a conversation. These new skills also needed to be assessed.

2.8.2 Integrating technology in an ELT class based on the Communicative Approach

Here are a variety of technological tools that can be used in a blended learning environment:

- wikis
- Skype
- Podcasts
- Vodcasts
- Powerpoint
- Social networking[
- 3D Virtual learning environments
- Educational Blogging
- Learning objects
- Flickr

By using the tools mentioned above with the guidance of a teacher, students are able to use their previous knowledge, synthesize information, and acquire new knowledge and skills with authentic materials.

The following technological appliances can be used to access and make use of technology tools:

- Laptops
- Desktop computers

- Ipods
- Ipads
- MP3 players
- White Board
- Tablet
- Mobile phones (MALL)
- Netbooks

2.9.1 Teenagers using technology

According to the Pew Internet & American Life Project, the Internet is an important element in the overall educational experience of many teenagers. Schools are a common location where online teens access the Web, although very few online teenagers rely exclusively on their school for that Web access.

Furthermore, there is widespread agreement among teens and their parents that the Internet can be a useful tool for school. However, 37 percent of teens say they believe that “too many” of their peers are using the Internet to cheat. And there is some disagreement among teens and their parents about whether children must be Web-literate by the time they begin school. Additionally, large numbers of teens and adults have used the Web to search for information about colleges and universities.

This Pew Internet Project survey finds that 87 percent of all youth between the ages of 12 and 17 use the Internet. That translates into about 21 million people. Of those 21 million online teens, 78 percent (or about 16 million students) say they use the Internet at school. Put another way, this means that 68 percent of all teenagers have used the Internet at school.

This represents growth of roughly 45 percent over the past four years from about 11 million teens who used the Internet in schools in late 2000. In the Pew Internet Project survey in late 2000, we found that 73 percent of those ages 12 to 17 used the Internet and that 47 percent of those in that age cohort used the Internet at school.

For a growing portion of the online teen population, schools have become an important venue for Internet use for a significant number of teens. About one in five online

teens (18 percent) who use the Internet from multiple locations list school as the location where they go online most often. This figure is up from 11 percent in December 2000.

2.9.2 Teenagers using technology in Argentina

The main focus regarding this topic has to do with the following question: how are teenagers using technology at secondary school? Which tools do they use? Do they get engaged with technology-based tasks?

During the late 1990s and the beginnings of the 21st century, teenagers at secondary school had insufficient access to new computer science achievements. They occasionally had a personal computer at home thanks to their high-middle class context. Otherwise, they went to cyber cafés so as to use Messenger (a chat room) or search for information in the web.

Today, in the year 2016, teenagers´ situation is very different. Most of them have smart-phones on their own. Regardless of their social class, they have one. Thanks to them they get Internet connectivity by Wi-fi or by their own mobile phone company service supply. This fact benefits their educational contexts since they can now be part of Whatsapp educational groups, Facebooks closed groups, an educational platform e.g. Edmodo among many other MALL uses.

Moreover, as mentioned previously on chapters 1 and 2 secondary scholars have been provided with one netbook per student. Due to this fact, CALL (Computer Assisted Language Learning) is feasible.

Doubtlessly, ICTs are a main constituent on teenagers´ life and due to this, it is necessary to get some profit of this situation since ICTs may not be used only for fun but for educational goals and it is the teachers´ role to help to integrate such technology into their classes. Of course, teachers´ training is of a major importance in order to encourage students to solve tasks based on ICTs programs.

In other words, having both mobile phones and a netbook, or either each of the two appliances, plus the access to Internet connectivity allows teenagers to get involved into a MALL (Mobile Assisted Language Learning), a VLE (Virtual Learning Environment) and/or an online virtual environment.

2.10 Benefits of integrating ICTs in the EFL class

Provided the use if ICTs in an EFL class is crucial to improve the following language aspects:

a) Verbal interaction: According to Liaw (1997), teachers should offer English language learners a language-rich environment in which students are constantly engaged in language activities. Children need to be able to interact with each other so that learning through communication can occur. Computers can facilitate this type of environment. The computer can act as a tool to increase verbal exchange

b) Vocabulary development: One way to use computers for English Language Learners is to teach vocabulary. Kang and Dennis (1995) write, "Any attempt to treat vocabulary learning as learning of isolated facts certainly will not promote real vocabulary knowledge". Students need to learn vocabulary in context and with visual clues to help them understand. Computers can provide this rich, contextual environment. The computer also allows students to become active learners in a one-on-one environment. Computers can incorporate various learning strategies as well as accommodate a variety of learning styles.

c) Reading: there are several ways in which technology can be used to improve reading ability. Most simple reading texts are also very primary in content. Older children may consider themselves too old to be reading such primary content books. Computers, however can increase the interest level for older students while keeping the text simple and easy to read. Another benefit of using computers for reading instruction is that the computer offers immediate feedback on performance. They also can provide added practice when necessary. According to Case and Truscott (1999), students have been able to improve their sight word vocabulary, fluency, and comprehension. Computer based reading instruction also allows for "increased interaction with texts, attention to individual needs, and increased independence through an ability to read texts they would not otherwise be able to read" (Case & Truscott, 1999).

Computer software and games provide many fun opportunities for students to practice literacy skills. There are numerous software packages for improving spelling, phonics skills, grammar and sight word vocabulary. When English Language Learners are

learning their second language, any and all language experiences are valuable to assist in reading ability.

d) Writing: As demonstrated, computers and software can help English language learners develop vocabulary skills and knowledge. Computers can also help ELL students develop their writing skills. Lewis (1997) recommends that composition for beginning learners should be a guided activity so students do not become frustrated. Writing paragraphs in a language that is still somewhat unfamiliar to students can be difficult. When using a computer, however, the use of graphics can make this much more enjoyable. Using clip art can also help students to convey their thoughts more clearly.

Trenchs (1996) ultimately discovered that using electronic mail as a supplement to the classroom curriculum can be effective. The students voluntarily used the e-mail. They were self-motivated to use their new language in a new and creative way for them. One of the benefits of using electronic mail included the scrolling feature that allowed the students to view the incoming message and use its structure as a model for creating a response. The scrolling feature also allowed students to easily edit and revise. The major benefit of using e-mail as a language learning activity is the fact that students are using meaningful language and authentic text.

According to Lewis (1997), grammar skills can also be demonstrated and reinforced using computers. The teacher can direct students to somehow highlight a specific part of speech (e.g. nouns) throughout their writing. To highlight, students have a lot of choices, such as underlining, italicizing, or changing the font size, color or type. Using a computer as a medium for studying grammar is much more motivating for a student as opposed to writing with a pencil.

2.11 Advantages and disadvantages if using ICTs in an EFL class

Computers and technology are still a source of fears and insecurity for many teachers everywhere in the world despite the latest advances applicable to language teaching such as specialized websites, blogs, wikis, language teaching methodology, journals, and so. Although many countries have done institutional efforts to modernize their equipment, spent large amounts in technology, proved the positive effects of integrating computers in language learning (Tsou, Wang & Tzeng, 2006) and so, many teachers still miss the appropriate interest, strong will to learn and a challenging attitude

towards teaching with computers. Most times the reasons are the lack of time for out-of-school training in combination with the natural difficulty in incorporating new working schemata within their own classrooms. In sum, the most relevant barriers to the implementation of ICTs in an EFL lesson are: lack of teacher´s competence and confidence, resistance to change and negative attitudes towards technology tools, lack of time, accessibility, technical support and effective training.

However, institutional organizations, district and national educational boards, and even publishers are making important institutional efforts to strengthen the presence and evolution of distance and online education, the gap between teachers/students and ICTs has not been shortened completely. As a consequence, computers should no longer be a little more than a way to typewrite (as they are sometimes today), send messages and, when lucky, to browse out for information on the net (Johnson & Eisenberg, 2006). Therefore, one major concern that is commonly shown by both teachers and education boards is how to motivate and instruct teachers to integrate computers and ICT into their classes. How to teach English with Technology, integrates theory and practice.

Thus, using technology to enhance language learning, as Jewell mentions ‘allows for increased learner autonomy and control, providing a more student-centered pedagogy with learners at the center of the learning process and ‘more actively engaged in their learning than in traditional direct instruction methods’ (Jewell, 2006: 178).

Learning technologies are becoming more normalized in language classrooms, as Bax (2003) predicted, and teachers are beginning to ‘stop seeing them as technologies and start seeing them as tools which suit some purpose and not others’ (Pegrum, 2009: 23).

Additionally, many teachers are self-directing their own learning when it comes to using technology, and are increasingly turning to online communities of practice, taking courses to act as a support system to help with the implementation of learning technology.

Finally, encouraging the use of educational technology in secondary language education has wider implications. As Dooly (2008: 23) mentions, ‘[i]f we are truly interested in preparing our students to be responsible citizens in an increasingly technologically advanced society, then our way of teaching our students must reflect this.’

2.12 Findings about specific advisable teaching-learning conditions in al ELT class

A variety of different tools can be applied into EFL classes since the proliferation of hand-held devices such as mobile phones, digital cameras, tablets, mp3 players and voice recorders has led to potential activities and resources. Even if mobile phones are banned in classrooms or institutions, teachers can use their own to record learners or to put a number of applications into practice.

As the potential of these devices is enhanced, more and more students have access to them and so teachers are beginning to experiment with using these tools. The use of mobile devices is expected to lead to language learning becoming more informal and personal (Chinnery, 2006; Kukulska-Hulme& Shield, 2008), with many more learners studying or practising with manageable chunks of language wherever they are, and in their own time. This revolution of mobile learning is happening both inside and outside the classroom. Consequently MALL is more likely to be approached.

Moreover, as we know, technology has a powerful scope in human beings´ information and communication processes. Due to this, as regards, *digital inclusion*, schools need to implement the use of blogs, online mass media such as e-mails and programs for synchronic interaction, linguistic instruments and other devices provided by ICTs. Therefore, virtual libraries and the use of multimedia material should be implemented so as to make the students involved into the language culture they are being exposed to.

Language culture teaching in the formal educational system is characterized by the diversification of levels because learning a language culture begins in different academic moments according to the region and the institution and can be learnt in either in an informal or formal contextualization. With respect to Resolution Nº 84/09 about "institutional and pedagogical alternatives adhered to the local, communitarian, urban and rural requirements through actions allowing the extent to equivalent results all around the country regardless social classes" a possible form of organization to get better results can be described as follows: "Tutorial workshops involving students who have reached a greater performance in their EFL subject. Teachers must propose homework and projects to be dealt with during a specific limited time using ICTs related to texts transversalizing other subjects."

Chapter 3

3.1. Methodology

This research is an explanatory study, meaning that both quantitative and qualitative logical methodologies are taken into account in order to develop the investigation. According to Dr Caroline Bulsara (2010:76) "[t]he explanatory model seeks to explain the initial phase of quantitative findings in more depth by interviewing (or focus group) with a few of the participants from the initial phase. The findings from the second qualitative phase will explain (inform) in greater depth the results from the initial quantitative phase of the study." Thus, "a combination of qualitative and quantitative data can improve an evaluation by ensuring that the limitations of one type of data are balanced by the strengths of another. This will ensure that understanding is improved by integrating different ways of knowing."(Caracelli,1997:19). Therefore, Dr Caroline Bulsara (2010:3) assures the following benefits of this mixed method:

a) Variation in data collection leads to greater validity.

b) Answers the question from a number of perspectives.

c) Ensures that there are no 'gaps' to the information / data collected.

d) Ensures that pre-existing assumptions from the researcher are less likely.

e) When one methodology does not provide all the information required

In sum, both qualitative and quantitative data will converge to attain the final results of this inquiry.

3.1.1 Research Tools

In order to collect the necessary data, research tools include classroom participant observation, semi-structured interviews and surveys answered by the selected informants of the field work (Triangulation Method).

The present work is focused on 6th graders and English Teachers.

The sample under study is 20 students belonging to the four different sections of 6th year at Escuela Técnica N°1 J.B. Alberdi. 5(seven) students per section are selected randomly so as to take part of the sample; 5 pupils from 6th "A", 7 from 6th "B", 5 from 6th "C", 5 from 6th "D" and 8 English Teachers who work in this Institution.

The surveys are in English but the answers given are in Spanish considering that these students´ level of EFL is neither fluent nor proficient yet. That is the reason why they are allowed to respond using their mother tongue if necessary and they are translated the questions orally in Spanish to make sure they comprehend them correctly.

3.1.2 The universe of study and school context

The universe of this research work is built by 20 students between 17 and 18 years old, who attend 6th year at Escuela Técnica N°1 J.B: Alberdi in the city of J.B. Alberdi, Tucumán and 8 English Teachers who work in the same institution.

There are four sections of 6th Year at this institution so 5 representatives from each of the sections make up the whole universe of study. These groups of students have EFL lessons twice a week, 40 and 80 minutes each day which altogether sums 120 minutes of EFL weekly. They have had EFL classes since 1st year of their secondary education. Moreover, they have had subjects related to ICTs since 4th Year since the orientation of the school is IT (Information Technology)

Escuela Técnica N°1 J.B. Alberdi is a public school which is located in the central area of Juan Bautista Alberdi city in Tucumán. The students pay no fee. Regarding the data collected, most of the students belong to an average middle social class. The mission of the institution is to provide students with technical IT knowledge which will then be useful for them for future tertiary studies. Students who graduate at this school have the chance to get a job since they get a valid certification which proves their practical knowledge as regards IT. Nowadays according to the registration at school, most of the

students who attend the school live either very close to it or in some of the different neighborhoods of the town. This fact shows that students and/or their parents choose to send their children to this Technical School which is the only one in the town with an IT orientation.

3.1.3 Context in Argentina

Computers in Argentinian classrooms: a brief historical review

During the 1980s under the military dictatorship ICTs were conceived as a complementary tool for the comprehension of logical concepts through the use of Basic programming language which by those days, was the most commonly used programming language with educational goals. The national policy regarding ICTs in educational contexts aimed at generalize informatization. It was established that the subject "Computing" was going to be introduced in 3rd year of the secondary schools during the course of Maths, a major subject. According to Muraro (2005), "it was very difficult for teachers the use of ICTs as a didactic resource since they did not have enough preparation to do so and the transmission of knowledge was the mere objective not the construction of it. Therefore, access to computers was limited by economic reasons."

From 1985 onwards, a new programming language was introduced. Its name was LOGO and it was created by Seymour Papert , an old collaborator of Jean Piaget. Papert thought that learning improved as long as children could participate in the process through the construction of their own elements. Likewise, the main function of computers has been to create new ways of learning and learning conditions. Due to these approaches based upon the use of this kind of language students generally became autonomous to decide what strategies to use in order to solve a problem. Even though it was an interesting concept, it failed. Neither BASIC nor LOGO satisfied curricular demands and they only contributed to strengthen the idea of teaching computing under the limitations of teaching how to use a computer and its basic applications.

By the end of the 1980s and the beginnings of the 1990s, the alarming fall of the costs of personal computers and the creation of new easier general programs stimulated the expansion of educational software. The most important achievement of this era is that

informatization was not under of study anymore because the operational use of the computer and its applications were then under the most prevalent focus of study. TELAR was introduced. It was the first education telematics in Argentina. TELAR is open to every school and teacher of the country and it promotes the pedagogical use of ICTs through national and international collaborative project works. From the 1990s onwards, private institutions added computers in their activities rapidly as well as some public schools did the same though the poor national investments.

Between 1993 and 1995 the Federal Education Law showed a national change of attitude with respect to the incorporation of computer media to the educational institutions. Thus, in the program “More and Better Education for Everyone” it is stated the need of incorporating ICTs and the pedagogical use of computing in education since the initial and continuum teaching training. By the half of the 1990s, the level of computational equipment increased vastly in public schools. Lack of specific curricular subjects and of teacher training for the use of computer media as a didactic resource in the traditional subjects led to the exclusively use of general computer applications in educational settings

IN OTHER WORDS, THERE WAS EQUIPMENT INDEED BUT THERE WAS LACK OF TEACHING COMPUTATIONAL TRAINING

By the year 2000 during José de la Rúa´ s government, EDUC.AR (an educational content portal) was introduced in order to ease the Access to INTERNET in every school of the country. Educ.ar suffered ups and downs until the Education Minister Daniel Filmus ordered that this portal was to be at the top of the public policies as regards the integration of ICTs in our educational system.

In 2004, THERE WAS AN AGREEMENT WITH MICROSOFT CORPORATION which involved Argentina into the program “Alliance for Education”. This agreement claimed that Microsoft was in charge of primary and secondary teachers´ free computational training all around the country. These courses were given in order to teach teachers and students the use of computers and certain programs based on the operational and instrumental use of software edited by Microsoft. This involved to show only one and restricted option to solve a problem having no other options to do the same thing.

Between 2004 and 2006 the starting point of the National Campaign of the Digital Literacy has had its goals at bringing ICTs closer to everybody regarding education and using them to solve educational problems and job training in Argentina. The planning has had five different action areas: equipment, connectivity, teachers´ training, content supply and the integration of educational networks. The campaign has considered didactic resources delivery and the publishing of educational material through the Website Educ.ar. Moreover, EDUC.AR has offered a space destined to secondary teachers to elaborate and share innovative classroom approaches by the use of ICTs.

In the year 2005 the PROJECT "ONE LAPTOP PER CHILD" (OLPC) was launched. It is an integral program for educational equality. It broadens previous objectives by stating that teachers´ training must contribute to "build up a culture based on the use of ICTs so as to make the progressive adquisition of meaningful habits possible in every school."

In 2006 the program INTEL was put into practice for the teachers´ training. And, by December 2006 a new Educational Law was launched. It premises the development of necessary competences for the management of new ICTs languages, the generation of pedagogical conditions for that management, specific disposals for the access and domain of ICTs to make them part of the new curricular contents needed for the Argentinian knowledge society inclusion.

The "Ministerio de Cultura y Educación de la Nación" through their "Cuadernillos de Informática- Ministerio de Cultura y Educación de la Nación" (2001) have supported research and and analysis devices with respect to the use of ICTs concerning several provinces which have been provided with Virtual Classrooms and bibliographical material for the implementation of new technologies and they have concluded that teachers still need more specific training courses in order to adjust their classes into the new pedagogical requirements of Secondary Schools Programs.

Pedagogical research based upon Andrea Marcos (2009) about the ICT impact on secondary Schools determined that not only teachers but also students between the ages of 12-18 must take oriented-specific training courses for the current execution of general topic areas such as Spanish, Maths and Science. Of course, this kind of training could be applied to English as a Foreign Language Teaching (EFLT).

Nowadays, pursuant to “Sobre Internet en Educación”- Ministerio de Educación, Ciencia y Tecnología - Colección educ.ar, our Argentinian schools are facing their needs to adapt their role according to social, scientific and cultural changes in order to respond to the present-day, individual and collective demands having to do with social, economic and laboral aspects which are related to education quality and the increase of Teachers and Students´ use of ICTs.

In conclusion, although the efforts, the extent and the repercussion of the new technologies in educational contexts worldwide, they have not reached the level of acceptance and diffusion they already have in other areas. ICTs are the driving force necessary for the renewing of education. However, no technology by itself will solve problems given by education itself. It is required to give ICTs a meaningful sense and use inside an integral pedagogical Project which responds to the formative students´ needs. A real digital literacy must be taken into consideration. “It is worthless to introduce ICTs in schools if there are no trained teachers ready to use them in a defined educational Project. Computers are worthless in classrooms if they are used only as electronic boards, notebooks or manual books”. We, as teachers must be trained in order to incorporate ICTs in our syllabuses and provide our students a better teaching

All in all, in this context technology was applied in an EFL classroom at Escuela Técnica N°1 J.B. Alberdi, an institution which has been equipped with several sets of computers in a Computing Room with internet access and each student has been given a netbook thanks to the program (OLPC)-(One Laptop Per Child)

3.2. Class Observations

The following report on the observations is the product of several repeated visits to Escuela Técnica N° 1 J.B.Alberdi .Each of the different sections of 6th year were observed each during their 6 English lessons each. Some classes were 40 minutes long and some others were 80 minutes long due to the fact that each course has a total of 120 minutes of EFL lessons per week divided into 2 classes per week. As the type of observation chosen for this research was “participant observation”, direct contact was accomplished in order to study the case in depth. Most of the students had their own netbook due to the

implementation of the national program Conectar Igualdad (28/32 in 6th "A"A- 27/30 in 6th "B"- 25/28 in 6th"C" and 24/27 in 6th "D"). This fact shows the feasibility of the integration of ICTs in all of the sections and of the implementation of 1-to-1 learning. The reasons why there were some students who did not have their netbooks in class were that some of their components were broken or did not work properly, some system failures, some netbooks were stolen or lost, etc…

Remarkably, in an average of 4 lessons of a total of 6, Internet Wi-Fi was available. Consequently, the activities planned by the teachers to be solved during the lessons where there was not Internet accessibility had to be changed by other traditional ones. Students used to work with their netbooks in a networking system but as sometimes the school connectivity was momentarily discontinued, they were not able to do so.

Even though there was no Internet connectivity in some of the classes, several students kept their netbooks on and used them as a means of entertainment and fun by playing computer games already installed in their computers. It was observed that the teachers tried to make those students turn their machines off. Nonetheless, those students did not pay attention to their instructions or orders.

Hence, teachers expressed their disagreement as regards the use of netbooks because they have not been trained properly in order to face the current demands of the new syllabuses which establish the complete informatization of all subjects as the starting point.

When one class suffered the consequences of the non-availability of Wi-Fi connectivity, the entire group had the chance to move to the Info Lab if it was not being occupied by any other group of students from the institution. This "move" was done in a disorganized way since at least 20 minutes of the lesson got lost because of this issue. It was not so easy to enter the Info Lab. The teacher had to ask the Technical regent for permission to do so and check if there were no other students in the Lab. Thus, if all these conditions were surpassed, then the students could be ordered to get into the Info Lab.

The Info Lab counted with 20 desktop computers working so during the classes performed there, the students had to work in pairs mostly. The activities in all of the cases were directed by the teacher who gave instructions and helped the students at the same time.

The observations demonstrated that generally, students were committed to doing the task given. They seemed interested and eager to learn more and to practice their English. Students from 6th "B" were the most enthusiastic ones whereas students from 6th "D" were the least. The pupils usually raised their hand when they had a doubt and called their teacher by his/her name. The most timid learners waited for another student´s question to clear up their own doubts. They did not dare to ask themselves. However, teachers could rarely respond to the students´ limitations as regards ICTs applications. They showed a clear incapacity to solve the problems emerged during the lessons. In other words, teachers tried to but in fact, they could not or could very little. All the same, one of the curious facts which came up during the observations, was that the students were more involved with the EFL lesson if it took place in the Info Lab rather than if it took place in their traditional classrooms. For instance, if the task implied reading comprehension with consecutive reading comprehension activities and/or quizzes, the learners showed more devotion and dedication when the readings were screened on the desktop computers from the Lab. Moreover, it was reported that a possible cause of the previous situation was that students were more concentrated on the exercises and explanations when working in pairs in the Lab than when working alone with their netbooks in their traditional settings.

Notwithstanding, it was depicted that only a few students seemed to be totally distracted both in their lessons using netbooks and in their lessons using the desktop computers of the Info Lab. There were also only a few students who could do all the tasks before the other students could which showed some kind of homogeneity among the members of the groups. Teachers were in charge of monitoring the students in order to avoid the use of Google or social networks such as Facebook or Instagram. Although the monitoring was quite successful, there were usually students who managed to "open barriers" and opened those social networks occasionally. During the classes observed in the Info lab only minimum technical problems occurred. It is important to mention that when practising spoken skills, there were no headphones available at school so the students had to use their own. The students´ headphones were always those belonging to their mobile phones. No tablets were present during the lessons since they were prohibited by the school authorities. However, the use of mobile phones was not forbidden and they could be used for such activities given as homework. Up to this point, the more

prevalent ICT tools were both desktop computers and netbooks. Homework proposed to be done by the occasional use of mobile phones were those regarded with listening or speaking skills. For example, once students were instructed to record a monologue about a specific computer software or conversely to listen to a piece of information and answer some questions on paper in a traditional way. Thus, traditional teaching forms and innovative ones were combined in a considerable primitive way. These activities were to be done considering that most of the students or all of them had access to a mobile phone which was certainly the case of all the students of the different sections of 6th year at Escuela Técnica N°1 J.B. Alberdi.

Taking into consideration the amount of time and the restrictions occurred, only a few teachers´ technology skills were performed accurately during the lessons observed:

1. Word Processing Skills: teachers were able to use Word-Microsoft Office

2. Electronic Presentation Skills: educators were able to create and give explanations through the use of PowerPoint-Microsoft Office

3. Web Navigation Skills: teachers showed some sort of ability regarding with the navigation sites such as Google.

4. E-Mail Management Skills: Educators did not usually use e-mail to communicate with their students, send feedback or attached files.

5. Computer Network Knowledge Applicable to your School System: Educators could hardly ever understand how school networks like Edmodo worked. Even though, one of the teachers was the innovator with respect to the use of Edmodo, the rest of the teachers as stated above, could scarcely ever provide feedback or send instructions through the use of it.

6. File Management & Windows Explorer Skills: educators were indeed able to manage a vast amount of computer files and to perform tasks such as to create and delete files and folders, move and copy files and folders using the My Computer window and Windows Explorer.

7. Downloading Software from the Web (Knowledge including eBooks): educators were more or less able to download software from the web but showed despair when the Internet service was slow which did not help to maintain a good teaching-learning environment

8. Installing Computer Software onto a Computer System: teachers had to ask for help when they wanted to install specific software in their students´ netbooks. Engineers who belonged to the school staff went for their assistance

9. Computer-Related Storage Devices: USB drives were used correctly whilst cd-roms were not since most of the teachers showed lack of ability when trying to save a file using cd´s.

Due to the very few technology skills demonstrated during the class observations, we can infer that teachers´ TPACK is not enough yet.

Students were quite autonomous at the moment of working. However their comprehensible output was not manifested to be successful. The cause of this fact could be that teachers by trying to use ICTs in their classes forgot about the communicative approach and thus, passive skills such as reading and listening were reinforced whereas active ones such as speaking and writing were left behind.

Collaborative work was not carried out under any circumstances since there was no use of collaborative tools like wikis, no negotiation of meaning between student-teacher or vice-versa or even among students and only little or no evidence at all of learners´ production of comprehensible output.

Regarding writing skills, teachers´ tools were not sufficient enough since they only made use of Word Microsoft processor and did not use any other tool such as blogger, Tricider or Wallwisher or any other related to this aspect. The same happened with reading online content since no tools such as Breakingnews or Listenaminute were used neither inside nor outside the class as homework. Conversely, Voxopop was used in some of the lessons which depicted the implementation of audio-speaking practice. Edmodo was also evidenced to have been put into practice. However, the teachers´ performance with respect to it was not the best. This fact denoted a minimum approach to a virtual learning environment.

Apart from that, only one technology tool was employed indicating a mere starting point of a blended learning environment. This tool was PowerPoint Presentations. In regard to technology appliances to access and make use of technology tools, both desktops and mobile phones were used. The use of the latter also indicates the presence of MALL.

Moreover, only a few benefits of integrating ICTs in an EFL class was exposed since even though reading and writing skills as well as vocabulary development were enhanced, verbal communication was left apart as it was stated previously.

Finally, tutorial workshops need to be incorporated so as to transversalize contents among several different subjects.

The data analysis of the interviews will be a source of evidence to reinforce what was observed in class.

3.3 Data Analysis

3.3.1 Students´ surveys

Here we have a survey model given to 20 students belonging to 6th year of Escuela Técnica N°1 J.B. Alberdi (5 students from 6th "A", 5 from 6th "B", 5 from 6th "C" and 5 from 6th "D"). As we see, the survey is of a close format including 8 questions. The students had to choose to tick either "yes", "no" or "sometimes".

STUDENTS´ SURVEY

Put a cross in the correct option in order to answer the following questions:

1) Do you frequently use your netbook and/or desktop computers from the Info Lab?
2) Do your EFL teachers work with topics which require the use of ICTs?
3) Have you been trained on the use of ICTs at school yet?
4) Do you like searching for information on the net?
5) Do you usually work with your schoolmates using ICTs?
6) Apart from the EFL lesson and lessons related to the school specificity, do you use ICTs in any other subject?
7) Do you think your EFL teachers are committed to the use of ICTs and show enough training as regards the use of ICTs?
8) Do you believe ICTs are beneficial for you in order to learn EFL?

///////	YES	NO	SOMETIMES
Question 1			
Question 2			
Question 3			
Question 4			
Question 5			

Question 6			
Question 7			
Question 8			

Each of the questions was categorized through a label so as to be show the results in a quantitative way.

FREQUENCY IN THE USE OF ICTs			
//////////////////	**YES**	**NO**	**SOMETIMES**
STUDENT 1	**X**		
STUDENT 2	**X**		
STUDENT 3	**X**		
STUDENT 4			**X**
STUDENT 5	**X**		
STUDENT 6	**X**		
STUDENT 7		**X**	
STUDENT 8	**X**		
STUDENT 9			**X**
STUDENT 10	**X**		
STUDENT 11			**X**
STUDENT 12			**X**
STUDENT 13		**X**	
STUDENT 14		**X**	
STUDENT 15		**X**	
STUDENT 16			**X**
STUDENT 17	**X**		
STUDENT 18		**X**	
STUDENT 19	**X**		
STUDENT 20			**X**

CLASSWORK USING ICTs			
//////////////////	YES	NO	SOMETIMES
STUDENT 1			X
STUDENT 2			X
STUDENT 3		X	
STUDENT 4		X	
STUDENT 5		X	
STUDENT 6			X
STUDENT 7			X
STUDENT 8			X
STUDENT 9			X
STUDENT 10			X
STUDENT 11	X		
STUDENT 12	X		
STUDENT 13		X	
STUDENT 14		X	
STUDENT 15		X	
STUDENT 16		X	
STUDENT 17		X	
STUDENT 18		X	
STUDENT 19			X
STUDENT 20		X	

SCHOOL TRAINING IN ICTs			
//////////////////	YES	NO	SOMETIMES
STUDENT 1		X	
STUDENT 2			X
STUDENT 3			X
STUDENT 4		X	

STUDENT 5		**X**	
STUDENT 6			**X**
STUDENT 7		**X**	
STUDENT 8	**X**		
STUDENT 9		**X**	
STUDENT 10			**X**
STUDENT 11	**X**		
STUDENT 12		**X**	
STUDENT 13		**X**	
STUDENT 14		**X**	
STUDENT 15		**X**	
STUDENT 16		**X**	
STUDENT 17		**X**	
STUDENT 18		**X**	
STUDENT 19			**X**
STUDENT 20	**X**		

EAGERNESS IN SEARCHING FOR INFORMATION IN THE INTERNET			
////////////////	**YES**	**NO**	**SOMETIMES**
STUDENT 1	**X**		
STUDENT 2	**X**		
STUDENT 3	**X**		
STUDENT 4			**X**
STUDENT 5	**X**		
STUDENT 6		**X**	
STUDENT 7	**X**		
STUDENT 8	**X**		
STUDENT 9			**X**

STUDENT 10			**X**
STUDENT 11	**X**		
STUDENT 12			**X**
STUDENT 13	**X**		
STUDENT 14	**X**		
STUDENT 15		**X**	
STUDENT 16			**X**
STUDENT 17	**X**		
STUDENT 18			**X**
STUDENT 19	**X**		
STUDENT 20			**X**

GROUPWORK/PAIRWORK USING ICTs			
//////////////////	**YES**	**NO**	**SOMETIMES**
STUDENT 1			**X**
STUDENT 2	**X**		
STUDENT 3	**X**		
STUDENT 4			**X**
STUDENT 5		**X**	
STUDENT 6	**X**		
STUDENT 7			**X**
STUDENT 8			**X**
STUDENT 9		**X**	
STUDENT 10		**X**	
STUDENT 11			**X**
STUDENT 12	**X**		
STUDENT 13		**X**	
STUDENT 14			**X**
STUDENT 15		**X**	

STUDENT 16	**X**		
STUDENT 17		**X**	
STUDENT 18		**X**	
STUDENT 19			**X**
STUDENT 20		**X**	

PERMANENT USE OF ICTs IN ALL THE SCHOOL SUBJECTS			
//////////////////	**YES**	**NO**	**SOMETIMES**
STUDENT 1		**X**	
STUDENT 2		**X**	
STUDENT 3		**X**	
STUDENT 4		**X**	
STUDENT 5		**X**	
STUDENT 6		**X**	
STUDENT 7		**X**	
STUDENT 8		**X**	
STUDENT 9		**X**	
STUDENT 10		**X**	
STUDENT 11	**X**		
STUDENT 12	**X**		
STUDENT 13		**X**	
STUDENT 14		**X**	
STUDENT 15		**X**	
STUDENT 16		**X**	
STUDENT 17		**X**	
STUDENT 18		**X**	
STUDENT 19			**X**
STUDENT 20		**X**	

TEACHERS´ USE AND KNOWLEDGE OF ICTs TOOLS			
//////////////////	YES	NO	SOMETIMES
STUDENT 1		X	
STUDENT 2	X		
STUDENT 3	X		
STUDENT 4		X	
STUDENT 5		X	
STUDENT 6		X	
STUDENT 7	X	X	
STUDENT 8		X	
STUDENT 9		X	
STUDENT 10		X	
STUDENT 11	X		
STUDENT 12	X		
STUDENT 13		X	
STUDENT 14		X	
STUDENT 15		X	
STUDENT 16		X	
STUDENT 17		X	
STUDENT 18		X	
STUDENT 19			X
STUDENT 20		X	

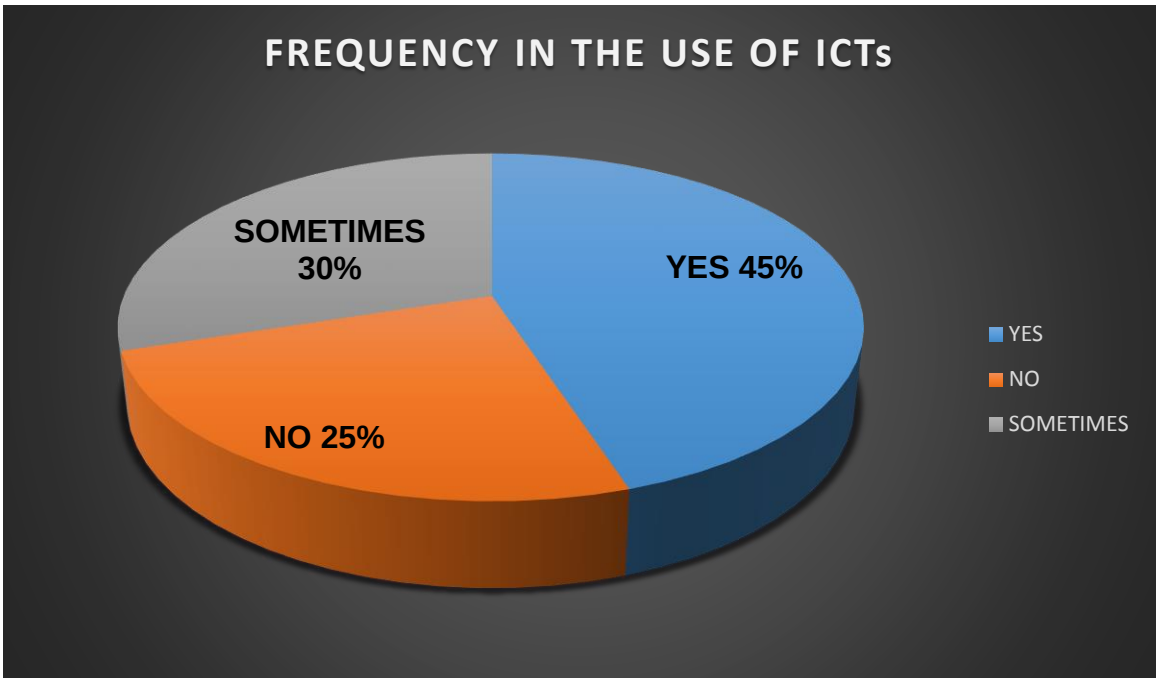
USEFULNESS OF ICTs FOR SCHOOL LEARNING			
//////////////////	YES	NO	SOMETIMES
STUDENT 1		X	
STUDENT 2	X		
STUDENT 3	X		

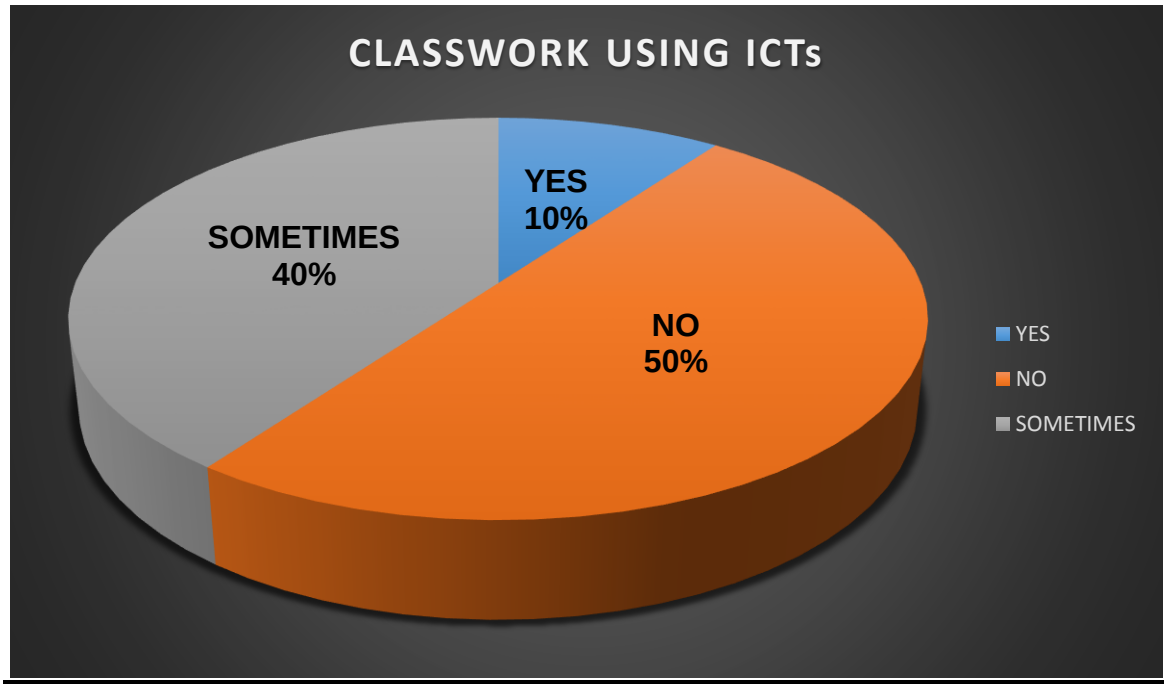
STUDENT 4			**X**
STUDENT 5			**X**
STUDENT 6			**X**
STUDENT 7	**X**		
STUDENT 8	**X**		
STUDENT 9	**X**		
STUDENT 10			**X**
STUDENT 11			**X**
STUDENT 12	**X**		
STUDENT 13		**X**	
STUDENT 14	**X**		
STUDENT 15		**X**	
STUDENT 16			**X**
STUDENT 17	**X**		
STUDENT 18	**X**		
STUDENT 19	**X**		
STUDENT 20		**X**	

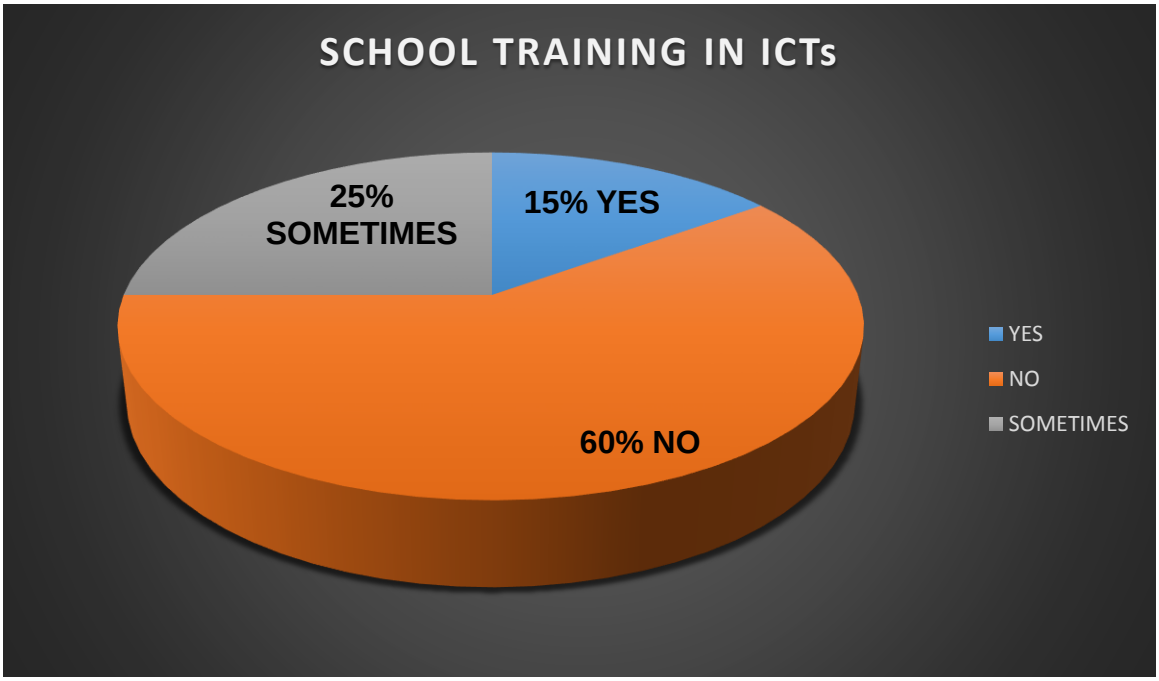
SUMMARY TABLE:

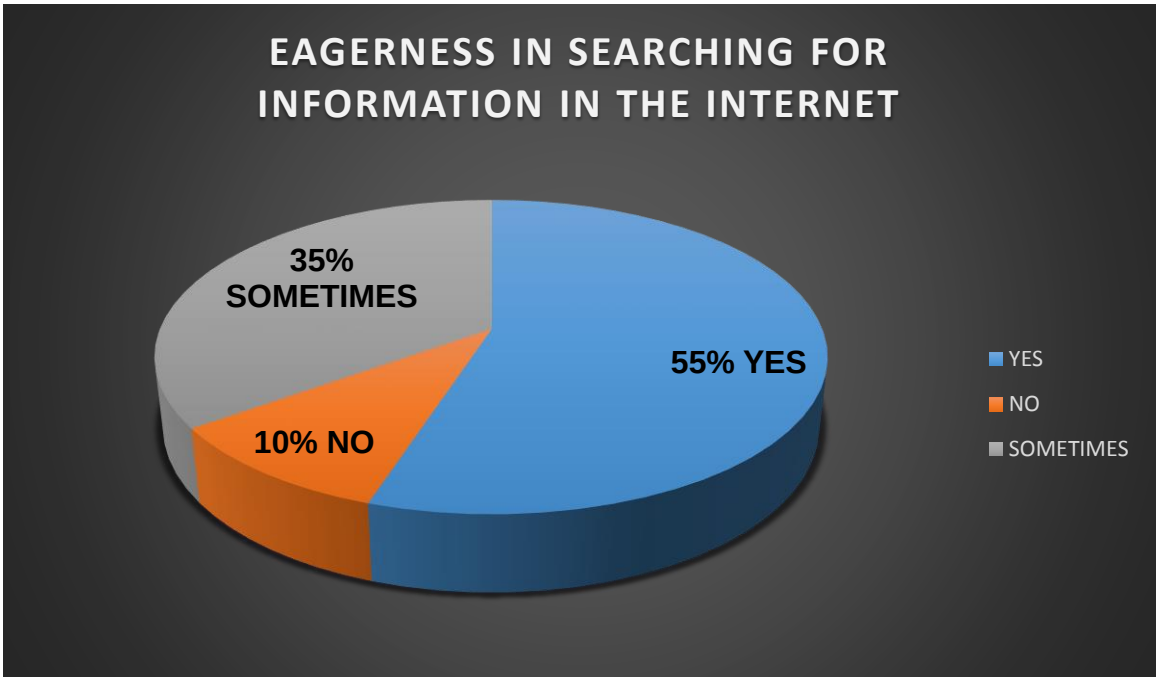
VARIABLES	YES	NO	SOME TIMES	TOTAL
FREQUENCY IN THE USE OF ICTs	**9**	**5**	**6**	**20**
CLASSWORK USING ICTs	**2**	**10**	**8**	**20**
SCHOOL TRAINING IN ICTs	**3**	**12**	**5**	**20**
EAGERNESS IN SEARCHING FOR INFORMATION IN THE INTERNET	**11**	**2**	**7**	**20**
GROUPWORK/PAIRWORK USING ICTs	**5**	**8**	**7**	**20**
PERMANENT USE OF ICTs IN ALL THE SUBJECTS	**2**	**17**	**1**	**20**

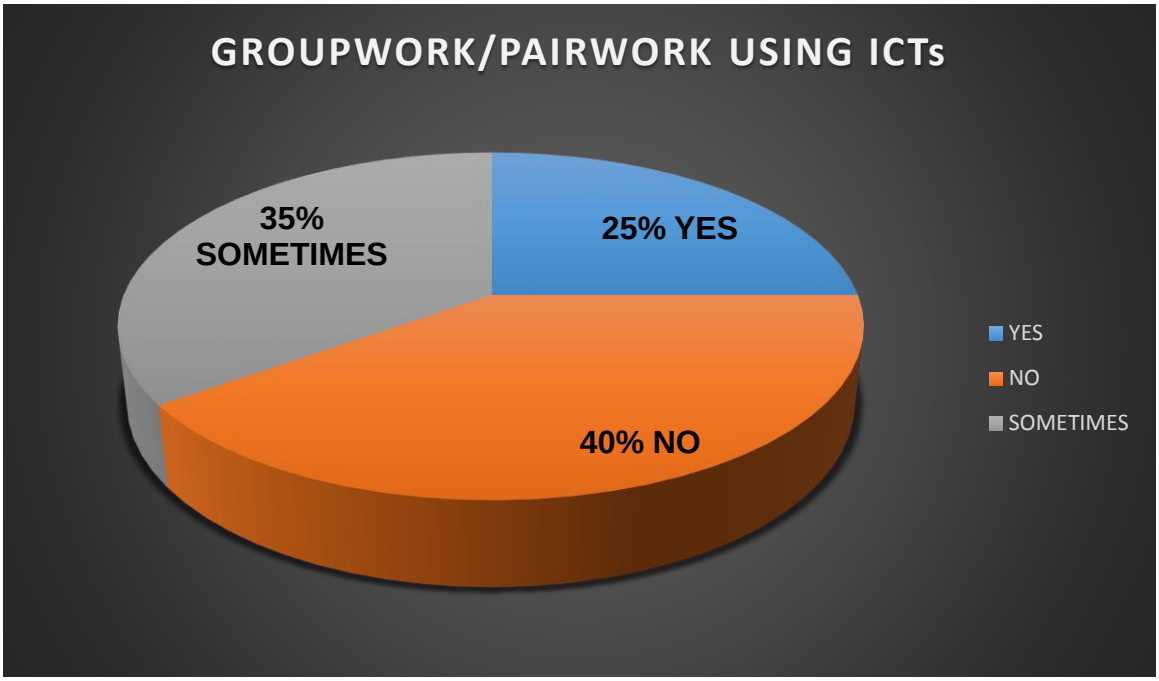
TEACHER´ S USE AND KNOWLEDGE OF ICTs TOOLS	**5**	**14**	**1**	**20**
USEFULNESS OF ICTs FOR SCHOOL LEARNING	**10**	**4**	**6**	**20**

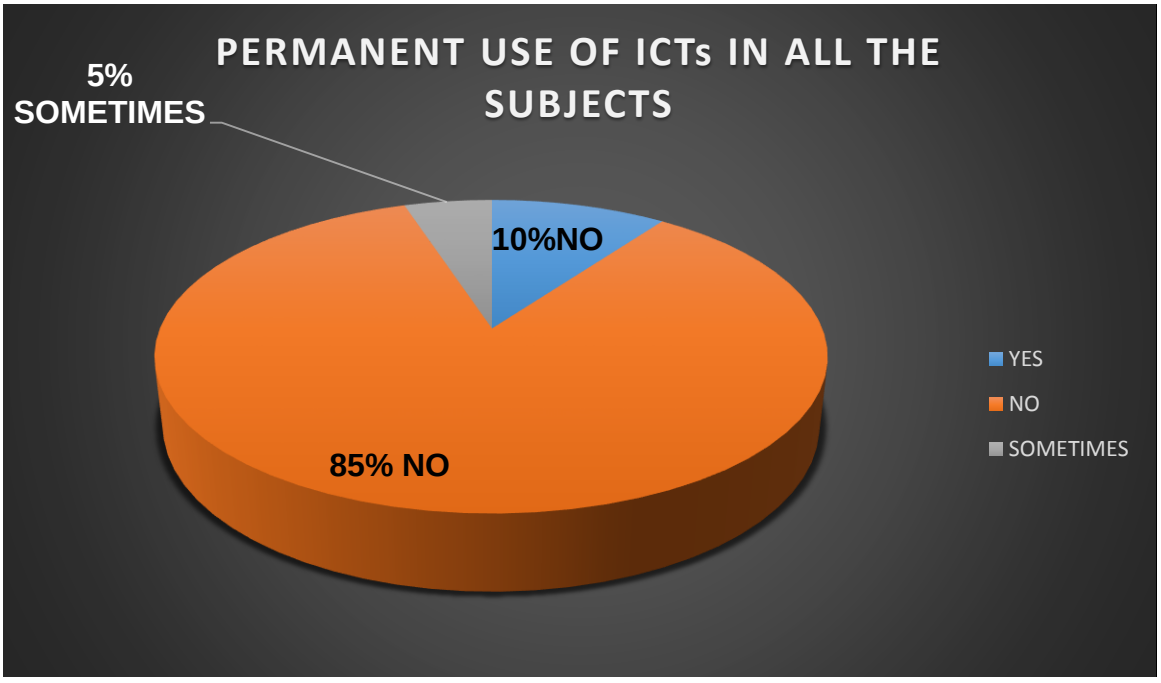


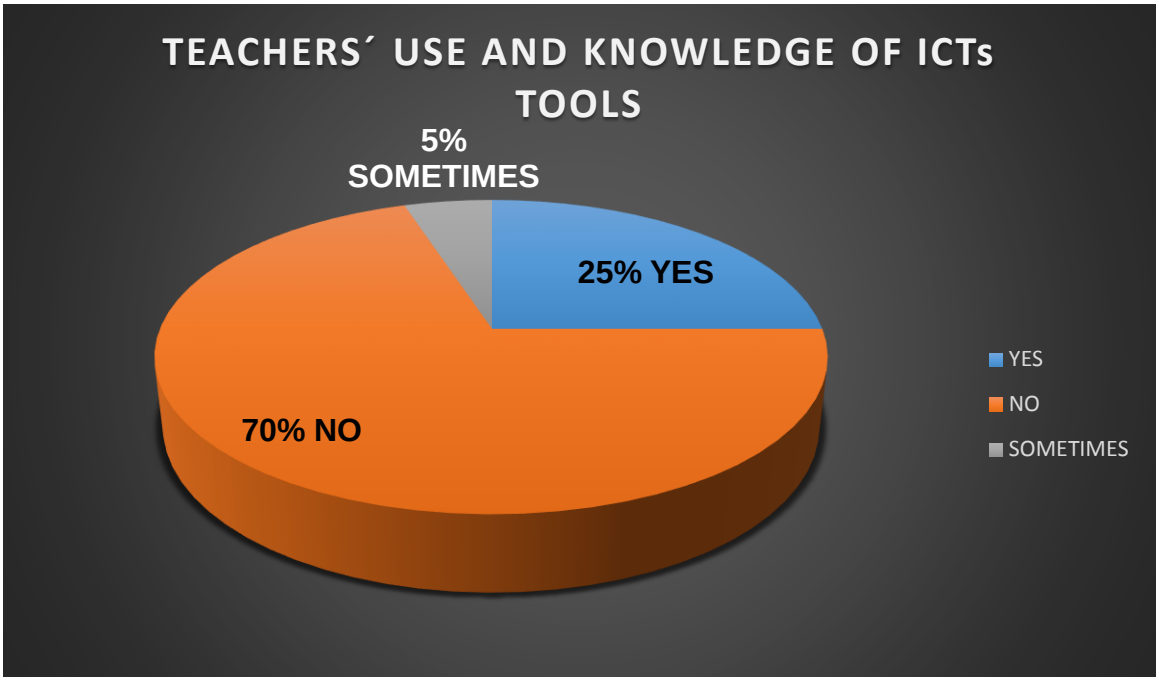


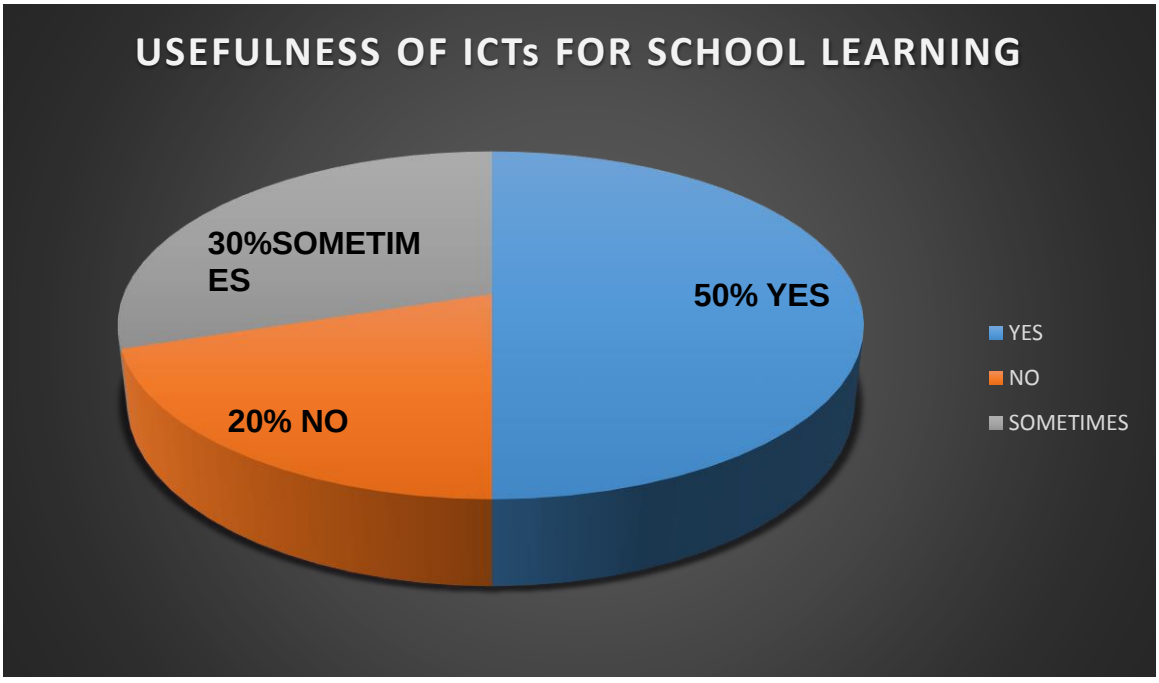

SCHOOL TRAINING IN ICTs
25% SOMETIMES
15% YES
60% NO
YES
NO
SOMETIMES


EAGERNESS IN SEARCHING FOR INFORMATION IN THE INTERNET
35% SOMETIMES
55% YES
10% NO
YES
NO
SOMETIMES


GROUPWORK/PAIRWORK USING ICTs
35% SOMETIMES
25% YES
40% NO
YES
NO
SOMETIMES


PERMANENT USE OF ICTs IN ALL THE SUBJECTS
5% SOMETIMES
10%NO
85% NO
YES
NO
SOMETIMES





The data obtained from the observation of the students' work during EFL lessons, their participations in them and their answers in the survey show that the frequency with which they used either their netbooks or the desktop computers from the Info Lab to do schoolwork were in fact insufficient. This fact was directly related to the following aspect involved which had to do with the students´ work in class using ICTs. Most of the students

answered in a negative way indicating that they worked only a few times with these technology tools. Consequently, it can be inferred that from the students´ point of view, ICTs had not been so useful at least up to that moment and that they did as a matter of fact used ICTs to entertain and play virtual games whenever they could.

When the students were asked about their school training as regards ICTs they replied once again negatively. However, they gave positive responds when they were asked whether they liked or not searching for information through the net. Both questions and their corresponding answers to a subliminal inference showing that even though students have no enough training of how to use ICTs for schoolwork, they are indeed eager to know how to do it.

With respect to their group work, the answers were not so remarkably negative since almost half of the students surveyed replied to work in pairs/groups using ICTs.

Comparing the use of ICTs in EFL lessons to their use in other subject, the results demonstrated to be alike since it seems that students are not using ICTs frequently in other subject apart from the specific ones which have to do with their school orientation (Information Technology).

Furthermore, students depicted through their answers that their EFL teachers did not show to have a deep concern and knowledge about ICT tools or programs.

Lastly, learners displayed positive answers as regards the good utilization of ICTs for the EFL teaching-learning process.

3.3.2 Teachers´ interviews

Below there is an interview model which was given to 8 EFL teachers. The 4 EFL belonging to 6th year “A”, 6th “B”, 6th “C” and 6th “D” respectively and 4 other EFL from the same institution which teach in the previous courses i.e. 5th year “A”, 5th “B”, 5th “C” and 5th “D”. The interview has an open format including 7 questions which could be answered either briefly or extensively however they wanted to.

TEACHERS´ INTERVIEWS

1) Do you think you are able to use ICTs in your EFL classes? Why/not?

2) Do you use specific software to develop certain EFL syllabus contents with your students?

3) Have you been trained to use ICTs at school?

4) Do you promote Virtual Learning Environments? How?

5) Do you use Internet? If so, what do you use it for during your EFL lessons?

6) Have you created an e-mail address, a Facebook account and/or a computer network to use it/them with your students?

7) Which ICTs do you usually use with your students?

As it was mentioned previously in this research work, eight EFL teachers were to be interviewed and six classes per section were to be observed resulting in 24 classes observed as a whole providing with the existence of four different sections of 6th year at Escuela Técnica N° 1 J.B. Alberdi. These observations were made in order to obtain the necessary data to find out how technology was being integrated in EFL teachers' practice. The interviews provided data which that supported the interpretation of the ways in which ICTs were being used by teachers of EFL classes. The EFL colleagues gave the following answers:

The qualitative information obtained through the teachers´ interviews has been "quantified" and thus questions and answers were categorized by means of several different variables.

Questions number 1, 2, 5, 6 and 7 have been reduced to the following category: **"Ability and use of ICTs".**

Moreover, teachers who answered question number 5 in a positive way, added to have been using the Internet for the use of social networks such as Facebook, Twitter, e-mailing, Google and Yahoo .

Question number 2 was also enlarged by those teachers who agreed to be program users during their classes by the usage of software like Word and Windows.

//////////////////////////	VERY GOOD	GOOD	MEDIOCRE	BAD
TEACHER A		**X**		
TEACHER B	**X**			
TEACHER C			**X**	
TEACHER D		**X**		
TEACHER E			**X**	
TEACHER F				**X**
TEACHER G			**X**	
TEACHER H			**X**	

Question number 3 is summarized in the following category: **"Degree of training in the use of ICTs"**

//////////////////////////////	FREQUENT	IRREGULAR	NULL
TEACHER A		**X**	
TEACHER B	**X**		
TEACHER C			**X**
TEACHER D			**X**
TEACHER E	**X**		
TEACHER F			**X**
TEACHER G			**X**
TEACHER H			**X**

Question number 4 has been studied under the next category: **"Engagement and promotion of ICTs"**

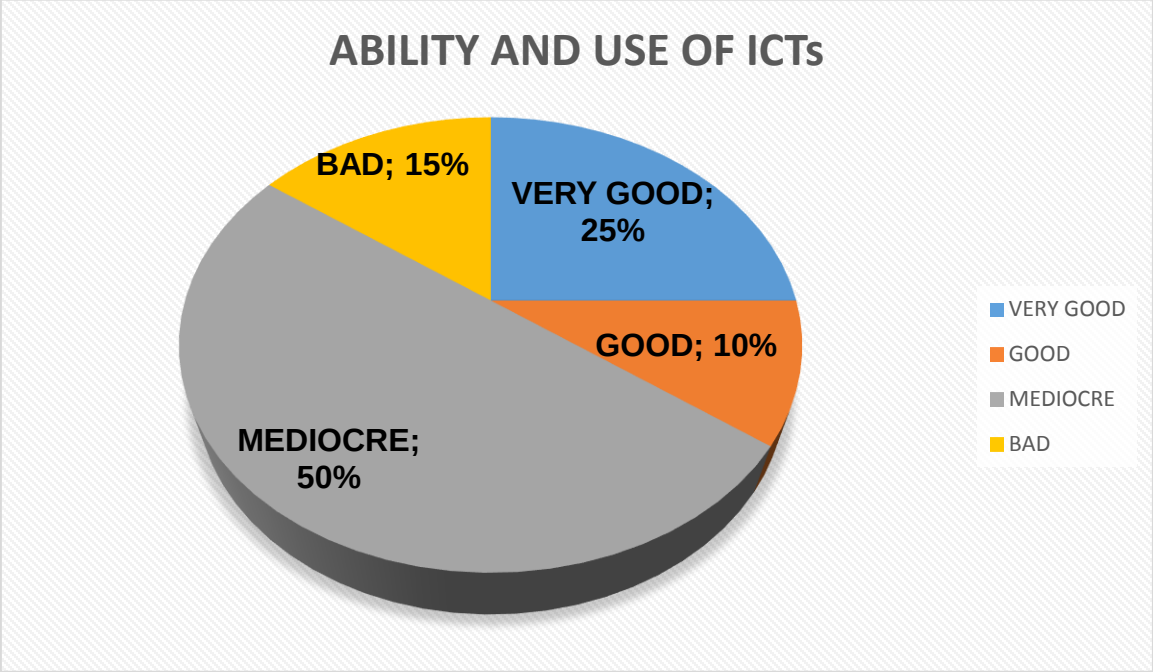
//////////////////////	VERY GOOD	GOOD	MEDIOCRE	BAD
TEACHER A	**X**			
TEACHER B		**X**		
TEACHER C			**X**	
TEACHER D			**X**	
TEACHER E		**X**		
TEACHER F			**X**	
TEACHER G	**X**			
TEACHER H	**X**			

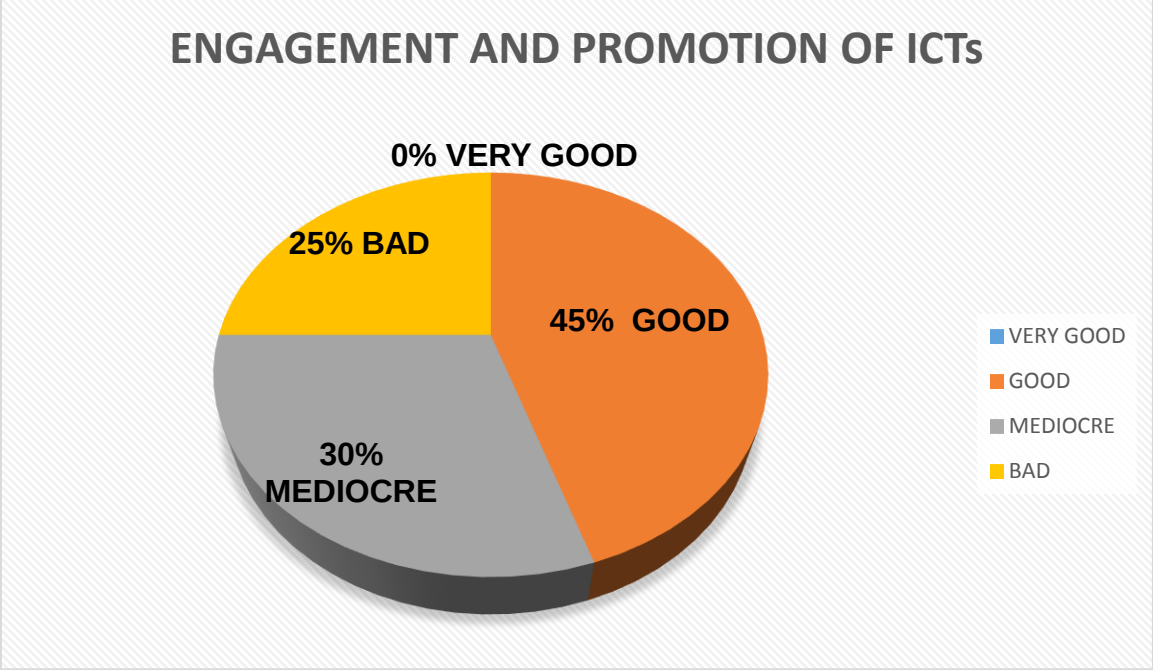
***Question number 6 has also been taken into account for the categorization shown above.**

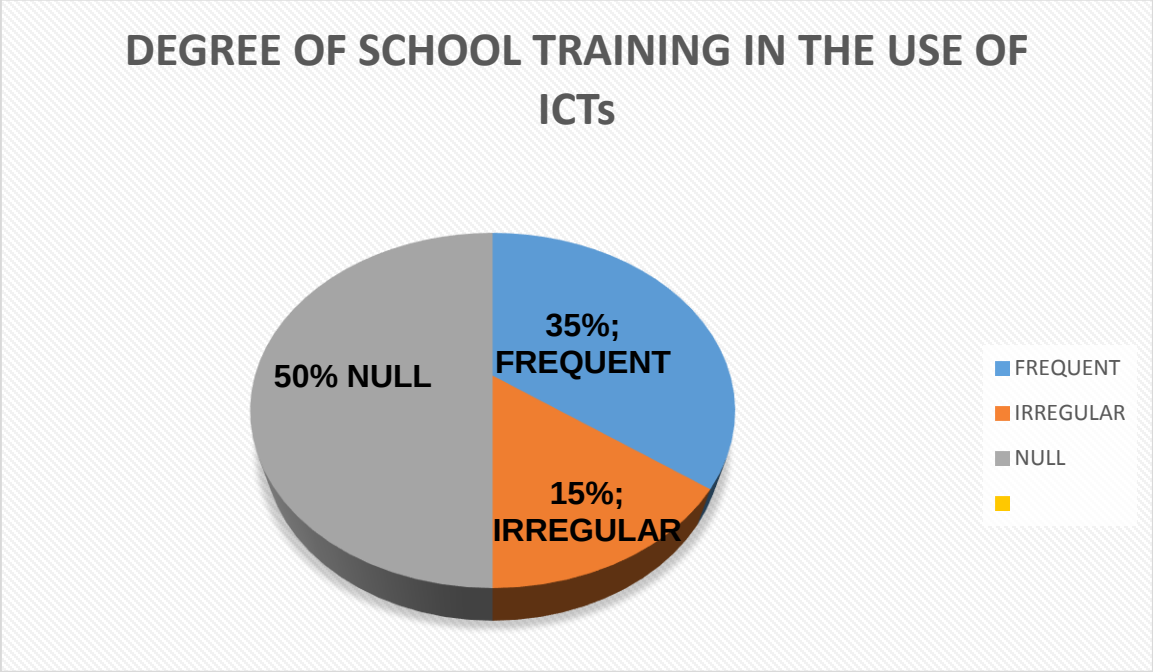
SUMMARY TABLE

VARIABLES	VERY GOOD	GOOD	MEDIOCRE	BAD	TOTAL
ABILITY AND USE OF ICTs	**1**	**2**	**4**	**1**	**8**
ENGAGEMENT AND PROMOTION OF ICTs	**3**	**2**	**3**	**0**	**8**

//	FREQUENT	IRREGULAR	NULL	TOTAL
DEGREE OF TRAINING IN THE USE OF ICTs	**2**	**1**	**5**	**8**


ABILITY AND USE OF ICTs
BAD; 15%
VERY GOOD; 25%
GOOD; 10%
MEDIOCRE; 50%
VERY GOOD
GOOD
MEDIOCRE
BAD


ENGAGEMENT AND PROMOTION OF ICTs
0% VERY GOOD
25% BAD
45% GOOD
30% MEDIOCRE
VERY GOOD
GOOD
MEDIOCRE
BAD



3.4 Interpretation of results

Conclusion

This study was done to find out about the integration of technology in the ELT of 6th Year at Escuela Técnica N°1 J.B.Alberdi in Tucumán. Its main focus was the teachers´ training as regards the use of ICTs in their classes.

This work has been taken under a qualitative-quantitative method due to the intention of combining words provided by the observation of classes and by surveys and interviews into numbers which demonstrated the assertiveness and accuracy of the present research. That is why the research tools used to collect data involved not only classroom observation but students´ surveys and EFL teachers´ interviews from 6th and 5th year.

In order to investigate about previous studies about this topic, much literature was consulted such as websites related to EFL, technology, cooperative learning, etc.

All in all the combination of class observations and the data analysis provided by the surveys and interviews were taken into account to identify the real situation of ICTs tools and the degree of usage and training regarding to them.

The findings showed that the EFL teachers from this school are not still trained and prepared in order to give their lesson mainly based upon ICTs tools. Some of them are eager to know how to do it properly and successfully. However, this is not enough since they have not been trained specifically on how to do so.

It was also possible to ascertain that even though each student (and teacher) has been given a netbook for his/her own use thanks to the Conectar Igualdad program, this fact has not provided with a complete solution to the issue of the digitalization since lack of teachers´ training as regards ICTs competences is the major negative factor affecting the situation. The students´ answers have shown that they are indeed eager to apply ICTs for their learning but they are like lost in the way to do so. Some teachers show a negative attitude towards the implementation of ICTs. However, those who do not, are trying to employ these new technologies but once again they are like lost in the digital world. Conversely, this fact seems to be improving slowly since word processors and educational programs are being implemented in the EFL lessons. Nonetheless, training is vital for the effectiveness of them.

Moreover, this research also involves since there were some slight contradictions between what was observed during the classes´ observations and the information gathered after the students´ surveys and teachers´ interviews.

This research also allows me to contribute to the field of English Language Teaching with the integration of technology as it follows. Firstly, it was identified that the progress of such integration is not parallel to the advances of technology since the latter go too fast and the former is slow due to the lack of permanent ICTs training of teachers. Likewise, this research might serve as a strong basis for other teachers of English from Tucumán who want to investigate about the effects, causes drawbacks, new helping tools, etc regarding ICTs in ELT classes. Thereby, this work might permit to know real results of the implementation of the program Conectar Igualdad in the secondary schools of Tucumán and its good and not good consequences as well as the extent of such implementation program.

After having made this present research work, it can be concluded that a vast number of teachers do not reflect the use of ICTs in their syllabuses. This fact has a direct relationship to their lessons. Some of the teachers are indeed able to use a word processor such as Microsoft Word, to navigate on the Net e.g. by Google and to manage

e-mailing. However, they still do not have enough abilities to upgrade activities by the use of ICTs tools in their classes. It was proved that quite a lot of the teachers did not make use of software or educational applications. This fact shows the impossibility of the accomplishment of interactive activities through a great and diverse number of programs.

This research study adds much knowledge to my professional career because I consider that the use of ICTs in education can involve both students and their teachers in order to investigate and develop new communicative creative abilities which will help them to have access to a greater amount of information and will also provide them with the means for a better students´ integral development. The use of ICTs is an effective and relevant knowledge and competence which serves as a support for both students and teachers. The reason for this is that in our current times technological advances are growing day after day into a demanding society in which all teachers must be trained to drive a profitable teaching-learning process. Furthermore, the use of ICTs in schools compels teachers to train themselves, investigate and apply new educational resources for their lessons**.**

As regards students, they seem to have a clear perception about their real situations due to the fact that they are already conscious that even though physical conditions for the implementation of ICTs in their lessons are more or less feasible, the problem lies on their teachers since they are the one who need to be trained in order to comply with “the new information society “(Gianni Vattimo). Hence, higher engagement from all of the members of the institution is required so as to make ICTs “a reality” and not only a mere speech and promise.

To sum up, all things considered, the incorporation of ICTs into the teaching practice has changed the traditional teaching-learning process since the ideal student is the one who is able to work in an autonomous way searching for information. This research process aims at the construction of his/her learning thanks to his/her teachers´ mediation of such processes through monitoring of the tasks involving ICTs.

According to the interviews, teachers expressed to be in a disadvantageous situation as regards their pupils since they are limited in the necessary competences for the good exploitation of ICTs. Teachers still seem to understand that the incorporation of ICTs in the classroom must not only occur in response to a requirement or fashion but in

response to the need of their implementation, which allows for the coalescence between the students´ interests and the didactic practices.

Consequently, the use of ICTs as an innovative strategy in the classrooms is a truly effective tool to improve students´ learning but above all, it is innovative for teachers who want to improve their lessons taking into account their students´ meaningful interests.

Taking everything into consideration, it is convenient that ICTs competences are socialized both during the initial teachers´ training as well as among students insomuch as they still involve unknown tools which result fundamental at the time of determining the teachers´ profile which is needed in this current highly technological knowledge society.

4.1 Final Conclusion

The present research paper turned around at determining whether or not EFL teachers from Escuela Técnica N°1 J.B. Alberdi from Tucumán are prepared or not to implement ICTs devices in their lessons or not. And if so, how they are managing to execute such implementation. After having observed a vast number of classes and having surveyed students and teachers from the last year of that institution, the results which came up evidenced that EFL teachers are neither trained nor prepared to use of ICTs in an effective way in their classes.

As far as I am concerned about this topic, I consider that much more training is needed urgently to those EFL teachers since students are willing to learn through their mobile devices and netbooks and this is an opportunity that cannot be put aside. Thus, students are indeed motivated with ICTs tools so it is a shame that we, as EFL teachers cannot be ready to afford such motivation and to take the best of it. Many efforts from the Ministry of Education are being done so as to train teachers of all subjects with respect to ICTs beneficial uses. Thus, government educational training has no cost for teachers. However, training is limited as regards the number of people who are available in each training cost. Teachers from the south of the province of Tucumán which is the case of most of the teachers who work at Escuela Técnica N°1 J.B. Alberdi live between 80-100 km from the San Miguel de Tucumán, the capital city of the province where the free ICTs training courses are given by the Government for free. Thus, this fact constitutes an

abridgement for them and many more teachers working and living far away from the capital city.

4.2 Final Comments

This research adds much knowledge to my professional career because I consider that the use of ICTs in education can involve both students and their teachers in order to investigate, develop new communicative creative abilities which will help them to have access to a greater amount of information and will also provide them with the means for a better students´ integral development. The use of ICTs is an effective and relevant knowledge and competence which serves as a support for both students and teachers in our current times where technological advances are growing day after day into a demanding society in which all teachers must be trained to drive a profitable teaching-learning process. Furthermore, the use of ICTs in schools compels teachers to train themselves, investigate and apply new educational resources for their lessons**.**

5 Appendix

Classroom Observation Worksheet (Sample- Class N° 3 in 6th D")

TEACHER IN CHARGE OF THE CLASS: Carina González

SCHOOL: Escuela Técnica N°1 J. B.Alberdi

N° OF STUDENTS: 27 pupils present- 0 student absent

OBSERVATION WORKSHEET	**////////////////////////////**	**////////////////////////////**
The class was performed in	**The classroom**	**The Info Lab**
	X	
Active group	**YES**	**NO**
		X

Indication of CALL (Computer Assisted Language Learning)	**X**	
Use of Blended learning,	**X**	
Signs of VLE Virtual learning environment,	**X**	
Use of Web-based Research		**X**
Perception of an Online-learning environment	**X**	
Reading skills/tools	**X**	
Speaking skills/tools		**X**
Writing skills/tools	**X**	
Listening skills/tools		**X**
Evidence of TPACK		**X**
Evidence of 1-TO-1 learning	**X**	
Focus on the Communicative approach		**X**

Extra notes: even though there some signs of CALL and blended learning, these were not enough to consider the class as neither a GOOD Virtual learning Environment nor an Online learning Environment. Teachers´ raining is URGENT!!!

STUDENTS´ SURVEY (sample- Student 17)

Put a cross (x) in the correct option in order to answer the following questions:

1) Do you frequently use your netbook and/or desktop computers from the Info Lab?

2) Do your EFL teachers work with topics which require the use of ICTs?

3) Have you been trained on the use of ICTs at school yet?

4) Do you like searching for information on the net?

5) Do you usually work with your schoolmates using ICTs?

6) Apart from the EFL lesson and lessons related to the school specificity, do you use ICTs in any other subject?

7) Do you think your EFL teachers are committed to the use of ICTs and show enough training as regards the use of ICTs?

8) Do you believe ICTs are beneficial for you in order to learn EFL?

///////	YES	NO	SOMETIMES
Question 1	X		
Question 2		X	
Question 3		X	
Question 4	X		
Question 5		X	
Question 6		X	
Question 7		X	
Question 8	X		

Teachers´ interview (Sample- Teacher G)

1) Do you think you are able to use ICTs in your EFL classes? Why/not?

Yes, I think I can partially use them. I am not an expert but I can manage the main ICTs tools.

2) Do you use specific software to develop certain EFL syllabus contents with your students?

Up to now, I´ve used only Word docs and tried to use Edmodo platform. However, it did it not succeed as it was expected. But I promise to ask for help in the future so as to implement it in full.

3) Have you been trained to use ICTs at school?

Absolutely not. No training has been given from the school. If I have had some training, it is because I paid for it in private institutions.

4) Do you promote Virtual Learning Environments? How?

Yes! I always encourage my students to look for innovative ideas to apply them in class. But…ermm you know how teenagers are. They forget or even they are not interested in such things. They live in their "own world".

5) Do you use Internet? If so, what do you use it for during your EFL lessons?

When the service is available, sometimes I try to use it to solve quizzes or watch YouTube videos.

6) Have you created an e-mail address, a Facebook account and/or a computer network to use it/them with your students?

I use my current e-mail address both for school and for personal issues. I have a parallel Facebook account for school aspects and as regards a computer network, an Edmodo account is available but I don´t know how to use it properly.

7) Which ICTs do you usually use with your students?

Mobile phones and their netbooks because the Info Lab is occupied by other courses most of the times.

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