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The impact of ICTs:

Advantages and disadvantages in academic performance of

5th year students at the technical school

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Dedication and Personal Acknowledgement

I would like to dedicate this thesis to the memory of my beloved mother “Mirta Rosa”, and to my sister “Mirtha Elizabeth”, who provided me during their entire life love lessons, peace and complete surrender to God. They taught me the first lessons about spiritual things.

To my sisters Marisol, Rosa, Ruth, and brothers Guillermo, Carlos y Federico, Thank for their endless love, prayers, support and advice, as well as my father, whom I will love until the end of times.

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Abstract

Information and communication technologies cover an extensive series of technological tools and resources which are employed to communicate, create, disseminate and manage information. This research work aims to provide valid information about advantages and disadvantages of ICTs in academic performance of 5th year students at the technical school in Jujuy. The investigation used a mixed method research. Data were collected by means of observations and interviews which allowed to identify the main pros and cons using Information and Communication Technologies in the classroom.

Chapter 1

“Technology may offer a great number of possibilities of meeting and solidarity among all; it is a gift of God. The churches have to open the doors to the digital world this means open the mind of the people to the knowledge and improvement. The Gospel must cross out the threshold of the temple through the use of information and communication technologies in order to know and meet everyone”. (Pope, Francisco 2015).

1. Introduction

Globalization and technological change processes have accelerated over the past fifteen years creating a new global economy powered by technology, fueled by information and driven by knowledge. As the half life of information continues to shrink and access to information continues to grow exponentially, schools cannot remain mere venues for the transmission of a prescribed set of information. Schools must promote learning to learn, for example, the acquisition of knowledge and skills that make possible continuous learning over the lifetime. Gonzalez, Gisbert 1996).

Information and communication technologies (ICTs) include a large number of equipment such as broadcasting and television, as well as newer digital technologies such as computers and the Internet that have been touted as potentially powerful enabling tools for educational change and reform. The appropriate use of ICTs help to expand the access to education, strengthen its relevance and raise educational quality, among others, turning teaching and learning into an engaging and active process connected to real life (Cabero;2001).

However, the successful integration of ICTs into the educational system is a multifaceted process that involves not just technology also curriculum and pedagogy, institutional readiness, teacher competencies, and long term financing, among others.

According to Daniels (2002) ICTs have become within a very short time, one of the basic building blocks of modern society. Many countries now regard understanding ICTs and mastering the basic skills and concepts of ICTs as part of the core of education, alongside reading and writing. However, there seems to be a misconception of the concept of ICTs that is generally referred to computers activities. Computers and their applications play a significant role in modern information management, other technologies and systems also include the phenomenon that is commonly regarded as ICTs.

According to a United Nations report (1999) ICTs cover Internet service provision, telecommunications equipment and services, information technology equipment and services, media and broadcasting, libraries and documentation centres, commercial information providers, network based information services, and other related information and communication activities. Information and communication technologies (ICTs) may be regarded as the combination of ‘Informatics technology’ with other related technology, specifically communication technology.

1.1 Problem

What are the advantages and disadvantages that prevail in the use of Information and Communication Technologies in academic performance of 5th year students at the technical school Engineer Herminio Arrieta?

1.2 Hypothesis

The advantages of implementing technology in the teaching of English outnumber the disadvantages that teachers and students of a 5th year at a technical school have to face.

1.3 Research Questions

- What are the benefits of using technology in the classroom?
- What are the disadvantages?
- What are the limitations found by the teachers?
- How technologies affect the academic performance of students?

1.4 Rationale

Information and communication technologies cover a wide series of technologies. They refer to technological tools and resources which are employed to communicate, create, broadcast and manage information. These modern trends include radio, television, computers, Internet, social networks and etc. In the last decade, there has been a growing interest in using computers and the internet to improve the effectiveness of teaching and learning in all levels and in both educational and non-educational settings. This is the reason, this topic is chosen and because of its great importance for the education and to improve the learning process, in addition to this it marks a tendency to the world not only in knowledge, in human relations and in business. Education should adapt ICTs in the classroom, its changes and its huge innovation.

It is undeniable that Computer Science is currently one of the most important growing fields in the globalized world. In the education field teachers can give many different and specific examples of how technology had changed their work. It is a significant research area for many scholars around the globe. Its nature has highly changed the face of education over the last few decades. There are also limitations to consider in the classroom such as: The overuse of technology in the classroom gives less opportunity for the individual to use their imagination, in addition to this, there is less opportunity for students to observe, analyze, or problem solve, through this modern term the students are not being challenged to use their own work skills. Information and Communication Technologies (ICTs) play a main role in creating a new and improved model of teaching and learning. A great number of studies have been conducted to examine the advantages of integrating ICTs in language education. However, there is a need for more studies on the disadvantages of using technology in language education. All these reasons justify the election of this topic of the research work.

1.5 General Objective

- To find out the advantages and disadvantages in academic performance of 5th year students' when using technology in the classroom.

1.6 Specific Objective

- To identify the main pros and cons using Information and Communication Technologies in the classroom.
- To know the limitations and pitfalls of information and communication technologies in the classroom.

- To provide a pedagogical proposal to the educational community about ICTs, the advantages and disadvantages.

1.7 Methodology

This investigation is carried out using a mixed research study. As it is stated in the introduction, elements from both qualitative and quantitative research are employed. A total of twenty two secondary English students are surveyed. The five interview teachers are pragmatically selected, it means that teachers are selected according to their vocational training and subject matter.

The data are provided from three important cities of Jujuy, “San Pedro”, “Manuel Belgrano” and from “Calilegua” respectively. The purpose of employing this method for the study is to obtain comprehensive opinions of the respondents about their feelings and knowledge about the pros and cons in ICTs usage in the classroom. The group have chosen consist of twenty two students from seventeen to eighteen year old that study in a private school in a small town called “Libertador General San Martin, Jujuy”. They learn English as a Foreign Language at school; however, this is not the only contact they have with the language. Some of them have the possibility to attend English private schools and some others pick up the knowledge interacting with technology and mass media. Nevertheless, a considerable number of students do not have the economic or technical resources like the other ones. The English class is the only place where they face the language. English lessons are twice a week: one lesson of forty minutes and the other one of eighty minutes. English teachers must make the most out their class since not all students have the possibilities to use the language to communicate outside the school.

Data collection tools

In order to collect the data, some instruments are used, such as elicitation, observations, surveys, semi structured interviews and evaluation.

Observation

Observation is way of gathering data by watching behavior, events, or noting physical characteristics in their natural setting. Observations can be overt (everyone knows they are being observed) or covert (no one knows they are being observed and the observer is concealed). The benefit of covert observation is that people are more likely to behave naturally if they do not know they are being observed. However, teachers will typically need to conduct overt observations because of ethical problems related to concealing your observation. Observations are focused on the whole class.

Interviews

The aim of using interviews is to find out about the knowledge teachers have about ICTs. Unstructured interviewing involves direct interaction between the researcher and the respondents. It differs from traditional structured interviewing in several important ways. Although the researcher has some initial guiding questions or core concepts to ask about, there is no formal structured instrument or protocol. The interviewer is free to move the conversation in any direction of interest. Consequently, unstructured interviewing is particularly useful for exploring a topic broadly.

Chapter 2

“Nowadays, Information and Communication Technologies (ICTs), in the education sector play an important role, especially in the process of empowering the technology in the educational activities. Education sector can be the most effective sector to anticipate and eliminate the negative impact of ICTs. Technology (internet) in another side can be the most effective way to increase the student’s knowledge”.
(Saverinus Kaka, S.P).

2 Theoretical Background

Keywords: Information and Communication Technology (ICT), pros and cons, teaching.

2.1 Historical Context in Argentina

The use of technology has been applied with the support of the National Ministry of Education that implemented different programs for state schools. According to Administración Nacional de la Seguridad Social, Connect Equality was created in April 2010 through the Decree No. 459/10. This program consists of delivering net books to all students and teachers from public secondary schools, special education, and teacher training institutes. It also proposes to educate teachers to use this tool and to develop educational projects that promote inclusion in the processes of teaching and learning. It also aims at reducing the digital divide and to improve the quality of education. (Conectar Igualdad, 2014). Moreover, another program by the Ministry of Education called Digital School was also implemented in state schools. Since March 2012, public schools across the country began to receive digital classrooms devices. The

Ministry of Education has been providing primary schools with different technological devices. Each Mobile Digital Classroom is a unit of equipment that comprises thirty net books, an educational server, an uninterruptible power supply, a wireless router for networking, a digital whiteboard, a projector, a camera, a multifunction printer, three pen drives. The Digital Primary School Program complements the work done in secondary schools with the Connect Equality Program (Aulas Digitales para las escuelas públicas, 2013). Those programs allow state school students across the country to have net books and other technological supplies to work in the classroom. Nevertheless, there are any direct policies toward private schools. According to the National Ministry of Education the program is directed to students of state schools. The Ministry of Education manifests the benefits of this policy. The Ministry of Education points out that the ICTs integration in schools does not imply exclusive focus on the use of equipment and tools but on learning processes. Some of the keys to effective ICTs integration are the adaptations to the context, the ability to respond to the student's needs and the significance to carry out individual and collective projects at schools (Ministry of Education, 2010). Besides that, pedagogical proposals that emerge from Digital School conceive this as a contribution to set educational priorities in two ways. This program achieves better levels of educational justice and transmits the primary school contents by using another resource. The main purpose of this program is to ensure the right of quality in education for all children in the country. People who belong to different organisms present their views about this policy. To begin with, Ariana Vacchieri, (2013) from United Nations International Children's Emergency Fund (UNICEF), manifests that the integration of information and communication technologies (ICTs) in the Argentine educational system is a rich, complex, and ever transforming process and it is useful to reflect on the many challenges of these devices

at school. She mentions that the big turning point is the Connect Equality Program which has been implemented in the country since 2010. In addition, Silvina Gvirtz, the Executive Director of the Connect Equality Program, manifests the distribution of net books has at least two major aims: a social aim that is to reduce the digital divide and ensure access to technology for all young people and an educational aim that is to improve the quality of education and increase learning outcomes. Members of some private schools manifest their views about this policy. For example, (2014), Martín Lucero, the secretary of SADOP (Sindicato de Docentes Particulares) from Rosario, claimed a policy of equal distribution of net books. In spite of the discussion about the delivery of net books to state or private schools, the use of technology has been encouraged by some organisms. According to Paul Woods, the British Council in Argentina has been contributing its limited resources to encourage teachers to make better use of the technology.

2.8 What is ICT?

"Information and Communication Technologies" is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, they refer to technologies that provide access to information through telecommunications. It is similar to Information Technology (IT), but focuses primarily on communication technologies. This includes the Internet, wireless networks, cell phones, and other communication mediums.

Information technology (IT) is a synonym for computers and computer networks, but it also encompasses other information distribution technologies such as television and telephones. Several industries are associated with information

technology, including hardware, software, semiconductors, telecommunication equipment, and computer services.

In the past few decades, information and communication technologies have provided society with a vast array of new communication capabilities. People can communicate in real time with others in different countries using technologies such as instant messaging, and video conferencing. Social networking websites like Facebook allow users from all over the world to remain in contact and communicate on a regular basis.

Modern information and communication technologies have created a "global village," in which people can communicate with others across the world as if they were living next door. For this reason, technology is often studied in the context of how modern communication technologies affect society.

2.9 The New ICTs - NTICS

Gonzalez, Gisbert (1996), refers to the new information and communication technologies as a set of processes and new tools products hardware and software that gives support information and also functions as communication channel associated with the storage, processing and transmission of digitized information. With digitization they have reached several achievements, for example: A. storing large amounts of information in very small devices, producing huge savings on paper usage. B. will release information from the physical container, allowing it to be accessible to everyone instantly through cyberspace. C. the possibility of further use of textual information, other types of representations such as graphs, videos, sounds, etc, making it possible to use simulation programs in real time situations.

Cabero (1996) highlights the main features that distinguish the new information and communication technologies such as, immateriality, interactivity, immediacy, innovation, high quality standards of picture and sound, automation, and digitization.

2.10 The use of ICTs and the Learning Process

Society is living in a constantly evolution and ICTs have an impact on nearly every aspect of the lives from working to socializing, learning to playing. The digital age has transformed the way young people communicate, network, seek help, access information and learn. Young people are now an online population and access is through a variety of means such as computers, TV and mobile phones.

One of the most important uses of technology is that it facilitates teachers the incorporation of multimedia into their teaching.

Many researchers agree that technology can help improve learning by enhancing digital communication to meet the needs of different learning styles of students. It is very important when using technology in the class, to think about how students learn. Teachers and learners can select from a range of multimedia and digital applications to match their preferred learning style and strategy and to experiment and investigate different approaches.

2.11 Information and Communication Technologies in Education

Schools have sought to take advantage of IT to improve education. Much remains to be learned about how technology can be used to help students learn the English language because students can practice the real language in everyday

conversations. A vast majority of students now study in schools and classrooms with computers and at least with some form of Internet access.

Access to computers and the Internet has increased rapidly during the past decade. Virtually all schools have Internet access in at least one location in fact, most classrooms have access. Most analyses of ICTs in the educational sector focus the impact on pupil teaching/learning process. However, some direct changes in the way teaching and learning are organized according to the effect of ICTs have in the education sector.

The role of ICTs in education:

- Changes in the management of the educational sector associated with ICTs.
- Changes in the work process in education associated with ICTs.
- Changes in the training of educational personnel and students associated with ICTs.

Nowadays, the Argentinean Government has seen the priority of connecting rural schools to the Internet and the integration into the larger educational system, and hooking them to the outside world. However, this is where the similarity with business begins to fade. Schools hardly use the ICTs to manage the quality of output, or to raise teacher productivity, or to reduce costs through analyzing spending. On the one hand if schools help teachers to understand how the ICTs work, students will enjoy working with technology. On the other hand, teachers will be captivated because it facilitates a lot of work and provides new ideas for the classroom. One of the best ways of helping children understand scientific ideas is to encourage them to communicate their own

ideas, because putting ideas into words or symbols forces learners to examine their own thinking and assumptions.

2.12 Main ICTs devices for teaching English

Personal and laptop computers with multimedia elements are considered the two principal multimedia components in the teaching learning process, although there are other technological devices, for example:

a. CD Player

This is a device that generally comes with the computer, where students can read all kinds of CD, such as: music, videos, games, musical concerts, etc.

This equipment is very important because teachers can use it in many ways. Nowadays, English books come with a CD in order to practice listening with the students. This instrument is necessary to complete a reading activity which is really important for students. Listening is one of the four skills that teachers need to introduce in the English Classes and if teachers do not have this instrument, they cannot teach appropriately, and the students cannot practice this skill. Nowadays, thanks to the Internet, teachers can find many ideas of how they can get some songs, which are good for the students.

b. Sound and Video Files

Sound and video can play a powerful part in the learning experience; here are some ideas to keep in mind:

- These files can take up a lot of storage space. The higher quality the more space it will take to store the file. Larger files take longer to load and download.

- By default, Power Point automatically links to these files rather than embedding them in the presentation. When the presentation has linked files, teachers must copy the linked files as well as the presentation if they are going to be giving the presentation on another computer.

- Consider the presentation environment when planning to incorporate sounds and video.

c. Speakers

With these instruments students can hear sounds, music, words, etc. which are in the hard disc of the computer. These things are included in the computer. With the speakers students can hear sounds and songs which are transmitted from a computer, these elements are really helpful when teachers are working with the students in a computer because besides listening sounds they can talk with other people and have a conversation.

These are very important instruments, because they are essential part of a computer, and without the speakers it is impossible to work with sounds, music, talk with other people, etc.

d. Microphone-hearing aids

A microphone allows the students and teachers listen to their voices and record them. With a microphone they can communicate with other people in other

computers which are connected to internet all around the world. A hearing aid is small electronic apparatus that amplifies sound and is worn in or behind the ear in order to listen personally and let individually listening and understanding.

The microphone is an essential and important element that a computer should have, because through this element students can listen and record their voices. Students can use the voice for many reasons, they can record dialogues, verbs, animal sounds, in order to teach and make it easier for the students to speak and listen to words, and of course learn new vocabulary. By using a cheap microphone and simple sound handling software the pupils can enhance and transform the multimedia texts. Voice can be used to explain text, to read poems, to become part of a story, to give helpful instructions. Sound effects and music can be used in countless ways. Editing, sounds on screen is an interesting exercise, and manipulating sounds to get special effects is great fun.

e. Webcam

A digital camera designed to take digital photographs and transmit them over the internet. Students can have a visual contact with other person who is connected to internet and have a conversation.

A webcam is a small camera attached to a computer. It serves for a variety of purposes, from taking still images to sending a live video over conference calls.

This element is part of a computer, too. The webcam is important because learners can have a visual contact with other people which are in other countries. And with the microphone they can have a conversation and visual contact with other students around the whole world.

f. Printer

Through this equipment students can print texts or images that are in the computer or in the Internet webpage.

Printer is really important, because with this element teachers can create the own material in order to be used in class with the students, the material that teachers create considering student's needs. They can print the tests for the students including images that will be helpful for them. At this time, with the internet facilities, educators can get new images and new ideas of taking a test and create new questions. The printer will help teachers a lot in order to create new material for the students and get new material for them, using internet. Teachers can also create their lessons in order to be more precise and organized.

g. Scanner

With this equipment is important to pick up all kind of images in the computer and modify them.

A scanner is a digital device that converts films, documents and photographic prints to digital images. With the scanner teachers can get images into the computer from other source or book, this will be really helpful when they are going to prepare the test for the students using images and making easy for them to recognize and work with that kind of images. This machine will be really helpful in order to create their own material too. For example, to create stories with images, teachers can scan images from different books and create their own story, and new ideas according to the student's necessities.

h. Television

This is the second most important equipment, after the computer, because teachers can use it in many ways and for many reasons. The TV is indispensable in Teaching Language laboratory. There are several programs to be used in the teaching-learning process like music, educational movies, videos, etc.

This equipment is really important, because most books come with a video that helps teachers' work, and really images are projected in order to help and make easier the teachers task.

i. Projectors

This is a device that accepts output from a computer and projects it onto a hanging screen or wall, and may also project standard video from a DVD or cable box. As a result, many units can be used both for classroom and conference presentation as well as home theater.

The projector is really important if teachers are creative for example, they can create their own story in the computer and then project the story in order to work with the students with any single detail. They can project draw in its real images; for example pictures of real situations and use pictures, real flash cards in order to create a lot of games to have fun classes and students will be really happy because they enjoy using this kind of material that will be different and new.

j. DVD

This equipment allows students watch movies which are recorded in CDs or Laser Disc. With this component can watch the movie through a TV or through a projector.

DVD is one of the most important element together with the TV, because it works as one, this element is essential for students and for teachers when projecting a movie, or simply working with the material that comes with English book.

k. Sounds equipment

These electronic equipment instructors can reproduce any kind of sounds that are recorded in cassettes or CDs. Likewise; they can listen to any kind of national and international radial programs. Applying a microphone they can use as human voice amplifier sounds of musical instruments, etc.

These instruments are one of the most important equipments that every teacher must have for an English class, because they can change a normal class into a series of various activities that can help the students in order to understand the language better, teachers can use songs, dialogues, sounds in order to create a different English class.

l. Digital Camera

This multimedia equipment is really important; using the projector educators can create real tales and project to the students or simply real pictures of things that they are studying in class.

Teachers might consider incorporating images into their course content:

- To make them easier for the students to follow and remember the content.
- To illustrate complex concepts.
- As part of the course content.
- To enrich the learning climate.

2.13 Pros and cons applying ICTs in the classroom

The manipulation of equipment and multimedia systems is becoming more and simpler. The equipment is more sophisticated but at the same time is easier to use, although it requires that people have some basic knowledge about how to use this multimedia instruments, in order to have better results in the teaching and learning process.

2.14 Pros

Multimedia projects encourage students to work in groups, express their knowledge in multiple ways, solve problems, check their own work, and construct knowledge.

Students have the opportunity to learn and apply real world skills. They learn the value of teamwork; the impact and importance of different media, including design issues, media appropriateness and validity; the challenges of communicating to different audiences; the importance of research, planning, and organization skills; the significance of presentation and speaking skills; and how to accept and provide constructive feedback.

Creating multimedia plan helps to reinforce students' technology skills and to prepare them for the demands of future careers.

Engaging students in multimedia projects make effective the use of technology in the classroom. Children will use technology to present and represent ideas. Developing media literacy skills involve critically analyzing the use of the technologies and the information derived from them.

Multimedia projects allow students to focus on course content; promote active and cooperative learning; engage students in higher order thinking skills; present and represent ideas through a variety of media; manipulate various technology tools, on-screen objects, and information models; locate and determine the best tools and resources for gathering and producing information; as well as critically analyze, evaluate, and organize information.

One of the many benefits of developing multimedia project is that it allows students to construct and communicate knowledge in various ways. Multimedia project also encourage group work and social interaction, but it does not require a uniform experience for all students, group work and social interaction are necessary for a multiple intelligence approach.

When assigning multimedia design teams, students should be places in groups that provide them with the opportunity to take advantage of the strengths, as well as nurture the weaknesses.

a. Reduced learning time

According to some researches, interactive multimedia/ videodisc training can reduce training time up to 60% over traditional classroom methods. These can be attributed to the immediate interaction and constant feedback which provide excellent reinforcement of concepts and contents.

b. Reduced Cost

The cost of interactive multimedia lies in the design and production. When the same program is used by more students, the cost per student is reduced, unlike the traditional instructional system which needs to cater teacher's salaries and overheads regardless of the number of students.

c. Increased Retention

The interactive approach provides a strong learning reinforcement and therefore boosts content retention over time.

d. Increased Motivation

Immediate feedback and personal control over the content provided by an interactive multimedia system has proven to be highly motivating to learners.

Dörnyei (2001) suggests that motivation concerns the direction and magnitude of human behavior, that is; the choice of a particular action, the persistence with it and the effort expended on it. In other words, the author says that motivation is responsible for why people do something, how long they are willing to sustain the activity and how hard they are going to pursue it. Moreover, Dörnyei (1990) finds that when learners see practical purposes in learning the language, they are motivated even if the language is not significant in the learner's community. Motivation is a major concern in improving reading and consequently fostering literacy but one should follow up on motivation strategies to check whether they help improve students achievement in the learned language (Dörnyei, 2001a) in addition to this, using new forms of technologies in the language class will certainly encourage and motivate learners to use the target language. Then, He claims that language learners are often motivated by course specific factors, such as the degree to which the material and learning tasks are interesting and engaging. He also mentions the group specific factors, such as the

dynamic of the learning group. In addition, motivation encourages greater effort from language learners and usually leads to greater success in terms of language proficiency and identification with members of the target language community. He states that motivation is a variable that may influence the degree of success to learn other language.

Gardner's model (1984) includes the distinction between integrative and instrumental orientations learning. Integrative orientation concerns a positive disposition to interact with and even become similar to valued members of that community. According to Gardner (1985), motivation proper subsumes three components: motivational intensity, desire to learn the language, attitudes towards learning the language. In his view, motivation refers to a kind of central mental engine or energy centre that subsumes effort, want (cognition) and task enjoyment (affect). Gardner argues that these two components belong together because the truly motivated individual displays all. The role of orientations is to help to arouse motivation and direct it towards a set of goals, either with a strong interpersonal quality (integrative) or a strong practical quality (instrumental). One of the most general and well known distinctions in motivation theories is that of intrinsic versus extrinsic motivation. The first type of motivation deals with behavior performed for its own sake in order to experience pleasure and satisfaction, such as the joy of doing a particular activity or satisfying one's curiosity. The second involves performing a behavior as a means to an end, that is, to receive some extrinsic reward (e.g. good grades) or to avoid a punishment.

Gardner (1985) writes that motivation to learn a foreign language can be described as a complex of constructs, involving effort and desire, as well as a favorable attitude toward learning the language at hand. This model promoted the notion that self-

identify and identification with the foreign language community is important to the language-learning process (Promoting motivation in the Foreign Language Classroom). Motivated students have a positive attitude about language outcomes. The author suggests that the integrative motivation of their students can be enhanced with interaction with authentic materials, including multimedia. He maintains that acquisition can occur only in the presence of certain affective conditions: the learner is motivated, self-confident and has a low level of anxiety. Furthermore, according to Ellis (1994), one way to motivate L2 learners is to design challenging tasks that present students with opportunities for communication and self-direction.

e. **Technology Motivation**

Teachers are certain that technology improves motivation, engagement and interest when students use multimedia programs and software designed to develop skills and knowledge which clearly has to do with the idea stated by the authors Bottino and Sharma (2007) who believe that “one of the greatest possibilities of electronic materials is the increase in motivation some learners experience”. Most teachers have the initiative to use technology in their lessons for they consider it is essential to encourage students when they are learning English. Besides, teachers assure that they feel self-motivated to integrate technology due to the fact that they can complement their daily lesson plans with new and interesting activities. Teachers agree that technology helps learners feel greatly motivated to acquire the target language. All of them said that students love working with technology, especially if they have to use their cell-phones or their net books to do the activities assigned. In addition, according to most teachers, technology is meaningful and positive because it offers a great variety of activities and resources that they can use according to their pedagogical needs and their students’ interests. Furthermore, most teachers said that it is undeniable that the information and

the amount of interesting material that they can find on the web is very useful to help students realize that learning a language is not as difficult as it seems and, as a consequence, they will be able to engage more in the learning process.

f. More Interactive Learning

Interactive systems enable learners to have more responsibility and better control over the learning and this generates a greater interest to actively seek new knowledge rather than passively accept instruction.

g. Technology makes education enjoyable

Students enjoy the process when the instructor uses white board or touch screen technology in order to make classes more interactive and interesting. In that way it's easy to attract the learner's attention. By the way, the involving technology in the educational process makes education more enjoyable both for the instructors and the learners.

It should not underestimate the possibilities of educational technology in the modern society. Nowadays, virtual classes are preferred by people all over the world. This form of education is really enjoyed by children because they can assimilate the knowledge in an amusing way.

h. Flexibility

The flexibility comes from the ability to navigate, by using a keyboard, mouse or touch screen, through an interactive program and to choose what and how much information is going to pick up students.

Today, computers are everywhere in developed country schools and universities. This technology is rapidly spreading to develop the teaching-learning process. Schools are connected to the World Wide Web, and students even in remote areas can have access to increasing amounts of information previously available only to

populations living near large city and university libraries. Through the Web, teachers and students can access curricular, teacher training, and other learning materials, some provides by their own central or state government administration, and other through replace earlier correspondence school and educational television.

2.16 ICTs enhancing teaching and learning process

The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning and research. ICTs have the potential to accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experience to work practices, create economic viability for tomorrow's workers, as well as strengthening teaching and helping schools change (Davis and Tearle, 1999). In a rapidly changing world, basic education is essential for an individual be able to access and apply information.

Conventional teaching has emphasized content. For many years teachers have taught through lectures and presentations interspersed with tutorials and learning activities designed to consolidate and rehearse the content. Contemporary settings are now favoring curricula that promote competency and performance. Curricula are starting to emphasize capabilities and to be concerned more with how the information will be used than with what the information is.

The integration of information and communication technologies can help revitalize teachers and students. This can help to improve and develop the quality of education by providing curricular support in difficult subject areas. To achieve these objectives, teachers need to be involved in collaborative projects and development of intervention change strategies, which would include teaching partnerships as a tool. According to Zhao and Cziko (2001) three conditions are necessary for teachers to

introduce ICTs into their classrooms: teachers should believe in the effectiveness of technology, teachers should believe that the use of technology will not cause any disturbances, and finally teachers should believe that they have control over technology.

The use of ICTs will not only enhance learning environments but also prepare next generation for future lives and careers. Changed pool of teachers will come changed responsibilities and skill sets for future teaching involving high levels of ICT and the need for more facilitative than didactic teaching roles.

According to Cabero (2001), “the flexibilization time space accounted by the integration of ICTs into teaching and learning processes contribute to increase the interaction and reception of information. Such possibilities suggest changes in the communication models and the teaching and learning methods used by teachers, giving way to new scenarios which favour both individual and collaborative learning”. The use of ICTs in educational settings, by itself acts as a catalyst for change in this domain. ICTs are tools that encourage and support independent learning. Students using ICTs for learning purposes become immersed in the process of learning and some students use computers as information sources and cognitive tools (Reeves & Jonassen, 1996), the influence of the technology on supporting how students learn will continue to increase. Learning approaches using contemporary ICTs provide many opportunities for constructivist learning through their provision and support for resource based, students centered settings and by enabling learning to be related to context and to practice. As mentioned previously, any use of ICTs in learning settings can act to support various aspects of knowledge construction and more students employ ICTs in their learning processes, the more pronounced the impact of this will become. Teachers generate meaningful and engaging learning experiences for their students, strategically using

ICTs to enhance learning. Students enjoy learning, and the independent enquiry which innovative and appropriate use of ICTs can foster.

2.17 ICTs enhancing the quality and accessibility of education

Information and communication Technologies increase the flexibility of delivery of education so that learners can access knowledge anytime and from anywhere. These can influence the way students are taught and how they learn as now the processes are learner driven and not by teachers.

One of the most vital contributions of ICTs in the field of education is Easy Access to Learning. With the help of ICTs, students can now browse through e-books, sample examination papers, previous year papers and can also have an easy access to resource persons, mentors, experts, researchers, professionals, and peers all over the world. This flexibility has heightened the availability of just in time learning and provided learning opportunities for many more learners who previously were constrained by other commitments. Wider availability of best practices and best course material in education, which can be shared by means of ICTs, can foster better teaching. ICTs also allow the academic institutions to reach disadvantaged groups and new international educational markets. As well as learning at anytime, teachers are also finding the capabilities of teaching at any time to be opportunistic and able to be used to advantage.

Innovative use of Information and Communication Technologies can potentially solve this problem. Internet usage in home and work place has grown exponentially (McGorry, 2002). ICTs have the potential to remove the barriers that are causing the problems of low rate of education in any country. It can be used as a tool to overcome the issues of cost, less number of teachers, and poor quality of education as well as to overcome time and distance barriers (McGorry, 2002). People have to access

knowledge via ICTs to keep pace with the latest developments. ICTs also allow for the creation of digital resources like digital libraries where the students, teachers and professionals can access research material and course material from any place at any time.

ICTs can provide speedy dissemination of education to target disadvantaged groups. ICTs enhance the international dimension of educational services. It can also be used for non formal education like health campaigns and literacy campaigns. The uses of ICTs in education develop higher order skills such as collaborating across time and place and solving complex real world problems. These improve the perception and understanding of the world of the student. Thus, ICTs can be used to prepare the workforce for the information society and the new global economy.

Bottino (2003) and Sharma (2003) mention that the use of ICTs can improve performance, teaching, administration, and develop relevant skills in the disadvantaged communities. They also improve the quality of education by facilitating learning by doing, real time conversation, delayed time conversation, directed instruction, self learning, problem solving, information seeking and analysis, and critical thinking, as well as the ability to communicate, collaborate and learn.

2.18 ICTs enhancing learning Environment

Information and communication technologies present an entirely new learning environment for students, thus requiring a different skill set to be successful. Critical thinking, research, and evaluation skills are growing in importance as students have increasing volumes of information from a variety of sources to sort through. ICTs are changing processes of teaching and learning by adding elements of vitality to

learning environments including virtual environments for the purpose. ICTs are a potentially powerful tool for offering educational opportunities.

Learning environments need to reflect the potential uses of knowledge that pupils are expected to master, in order to prevent the acquired knowledge from becoming inert. In addition, teachers should stimulate pupils to engage in active knowledge construction. This calls for open ended learning environments instead of learning environments which focus on a mere transmission of facts. ICTs may contribute to creating powerful learning environments in numerous ways. ICTs provide opportunities to access an abundance of information using multiple information resources and viewing information from multiple perspectives, thus fostering the authenticity of learning environments. ICTs may also make complex processes easier to understand through simulations that, again, contribute to authentic learning environments. Thus, ICTs may function as a facilitator of active learning and higher order thinking. The use of ICTs may foster cooperative learning and reflection about the content. Furthermore, ICTs may serve as a tool to curriculum differentiation, providing opportunities for adapting the learning content and tasks to the needs and capabilities of each individual pupil and by providing tailored feedback.

Another aspect which may influence the use of ICTs is access to technology; this refers not only to the number of computers, but also to the placement of the equipment, for example; in the classroom or in a computer room. Kennewell (2000) feels it is essential that computers be placed in the classroom, in order to maximize the opportunities for curriculum activity. ICTs environment improve the experience of the students and teachers and to use intensively the learning time for better results. The ICTs environment have been developed by using different software and also the extended experience in developing web based and multimedia materials. ICTs have an

important role to play in changing and modernizing educational systems and ways of learning.

2.19 ICTs enhancing learning motivation

Information and Communication Technologies can enhance the quality of education in several ways, by increasing learner motivation and engagement, by facilitating the acquisition of basic skills. ICTs are also transformational tools which, when used appropriately, can promote the shift to a learner centered environment. ICTs, especially computers and Internet technologies, enable new ways of teaching and learning rather than simply allow teachers and students to do what they have done before in a better way. ICTs have an impact not only on what students should learn, but they also play a major role on how the students should learn. ICTs provide Motivation to learn and can be used to provide challenging and authentic content that will engage the student in the learning process. Interactive radio likewise makes use of sound effects, songs, dramatizations, comic skits, and other performance conventions to compel the students to listen and become more involved in the lessons being delivered. ICTs change the characteristics of problems and learning tasks, and hence play an important task as mediator of cognitive development, enhancing the acquisition of generic cognitive competencies as essential for life in our knowledge society. Students using technology for learning purposes become immersed in the process of learning and as more students use computers as information sources and cognitive tools (Reeves and Jonassen, 1996), the influence of the technology on supporting how students learn will continue to increase.

Learning approaches using contemporary ICTs provide many opportunities for constructivist learning through their provision and support for resource based,

student centered settings and by enabling learning to be related to context and to practice. The teachers can make their lecture more attractive and lively by using multimedia and on the other hand the students are able to capture the lessons teach to them easily. As they find the class very interesting, the teachings also retain in their mind for a longer span which support them during the time of examination. More so than any other type of ICTs, networked computers with Internet connectivity can increase learner motivation as they combine the media richness and interactivity of other ICTs with the opportunity to connect with real people and to participate in real world events. Technology enhances learning is student directed and diagnostic and allows learners to explore and discover rather than merely listen and remember. Technology can engage and inspire students, and these have been cited as a factor influencing ready adaptors of ICTs.

2.20 ICTs enhancing the academic performance

Based on the extensive usage of ICTs in education the need appeared to unravel the myth that surrounds the use of information and communication technologies (ICT) as an aid to teaching and learning, and the impact they have on students' academic performance. ICTs help expand access to education, strengthen the relevance of education to the increasingly digital workplace, and raise educational quality. However, the experience of introducing different ICTs in the classroom and other educational settings all over the world over the past several decades suggest that the full realization of the potential educational benefits of ICTs. ICTs help students to their learning by improving the communication between them and the instructors.

The analysis of the effects of the methodological and technological innovations on the students' attitude towards the learning process and on students'

performance seems to be evolving towards a consensus, according to which an appropriate use of digital technologies in education can have significant positive effects both on students' attitude and their achievement. Research has shown that the appropriate use of ICTs can catalyze the paradigmatic shift in both content and pedagogy.

Becker (2000) finds that ICTs increase student engagements, which lead to an increase amount of time students spend working outside class. He shows that students in on campus courses usually score better than their online counterparts, but this difference is not significant. ICTs especially computers and Internet technologies enable new ways of teaching and learning rather than simply allow teachers and students to do what they have done before in a better way. Studies have identified a variety of constructivist learning strategies (e.g., students work in collaborative groups or students create products that represent what they are learning) that can change the way students interact with the content. Becker (2000) urges the use of asynchronous tools to promote student self efficacy and hence academic performance. He also describes the power of tablet PCs to improve instruction. ICTs have the potential for increasing access and improving the relevance and quality of education. The use of ICTs in educational settings, by itself acts as a catalyst for change in this domain. Students using ICTs for learning purposes become immersed in the process of learning and as more students use computers as information sources and cognitive tools, the influence of the technology on supporting how students learn will continue to increase.

2.21 Cons

In most of the schools in the city of Libertador, the computer lab has not enough computers for the whole class so they must be shared. This affects motivation and also their academic performance.

A possible solution to this problem when taking the students to the laboratory is to plan different activities, for students who will be using the computers and some other activities for the ones who are not. This requires the teachers to have a very active role in the laboratory to monitor the student's tasks.

Recent changes in education have been coupled with the introduction of new technology, and this inevitably change of teaching and learning methods show some of the shifts away from traditional methods which are still on force. Some students are not familiarized with this new technology, and they feel afraid of participating and working with the teacher. It seems they close their minds, or simply feel ashamed dealing with multimedia.

While many education experts tout the advantages of incorporating technology into the school curriculum and the classroom, technology can sometimes hinder learning and the educational process. However, some schools of Libertador are adequately equipped and teachers are trained to use it effectively.

Becoming aware of some of the disadvantages in utilizing technology in the classrooms can allow schools to be better prepared for the widespread use of computers and devices by their student and teacher populations.

Cons identified are:

a. Lack of Support

While technology can be a great addition to the classroom, it also can be a source of frustration for both the teacher and the student. Unless the teacher is well trained in technology and can support the hardware in the classroom, a technology expert will be needed to troubleshoot problems. If schools cannot support the purchased

technology, it essentially renders it useless in times of crisis or disrepair. Additionally, technology often needs frequent maintenance to keep it in good condition for use.

b. Inadequate Teaching Methodology

Technology does not have a place in classrooms where teachers have not been adequately trained in its implementation. While technology is fun and can add interest for students, it is not fully integrated until students are learning from technology and not just with technology. In other words, using a program to achieve a learning goal is a positive thing; however, transcending the passive use of technology and moving into active use is a skill that takes a lot of time and training. To use technology most effectively, extensive professional development is required for the classroom teacher.

c. Time Lost

Because of connection problems, downloading issues, policing software and other difficulties can cause road blocks when implementing a lesson in the technology classroom, teachers sometimes shy away from using it simply because of lack of time. With all of demands on students, the amount of time spent in the classroom is more and more valuable.

d. Upkeep and Maintenance Expenses

Once technology is purchased for a school, the cost of upkeep and maintenance can be too great for the building to maintain. Outdated software and hardware components can be incompatible with available programs. Also, the cost of repairing broken equipment may be too expensive for school budgets. To be successful a school should implement technology, there must be a rolling replacement or updating plan in place to keep technology current and useful.

e. Too Easily Distracted by the Internet

- The internet is a vast source of information, some of which is entertaining but does not improve the education of a student.
- Too many times is completely distracted by websites. For example, YouTube and Facebook.
- While the internet has plenty of great sources for quality information, especially with countless e-books, it can easily distract the student and even the teacher.

f. What about Imagination Skills?

- The overuse of technology in the classroom gives less opportunity for the individual to use the imagination.
- There is less opportunity for students to observe analyse, or problem solve if an instructor is giving them everything on an overhead projector or smart board.
- When a lesson is easily accessible through technology or internet use the students are not being challenged to use their own work skills.

Chapter 3

“The magnitude of technology in the daily lives is undeniable. This is due to the fact that in today’s dynamic world, life without technology is meaningless. Technology, which basically refers to bringing together tools that ease creation, use and exchange of information, has a major goal of making tasks easier to execute as well as solving many mankind’s problems” (Cabero, 1996).

3 Group Descriptions

The group chosen is about twenty scholars from seventeen to eighteen year old that study in a private school in a small town called “Libertador”, in the province of Jujuy. They learn English as a foreign language, this means that the only contact they have with the language is the school, twice a week during eighty minutes. The English teachers must make the most out of the class since students do not have possibilities to use the language to communicate outside the school.

This group of students do not benefit from a personal computer given by the government because the school is private, this means that the major part of students have good economic situation to buy a computer. This situation is a challenge for the teachers who want to implement the ICTs in class, for this reason, this represents a disadvantage.

The selected group of students of fifth year of Technical School contains good level of knowledge regarding foreign language.

In this particular group, a great number of students have good background knowledge of English since they attend private classes or institute. Most of the students

feel eager to work with the language and are enthusiastic to solve the activities. Most of the students are in great keen with so didactic and motivating classes.

3.1 Data Collection

3.2 Observation of teacher and students' work

This is the result of the observations of two classes between April to May. They are about eighty minutes per class. Students attend the Computing Lab to have the English lessons. The lab counts with twenty computers that have internet access and stereos. However, not all of them work properly during the classes. There are some other old computers that cannot be used because they do not function in the appropriate way. In the classes, there are twenty two students. As the numbers of computers are limited, there are students working in small groups in order to do the activities. The activities are guided by the teacher and the students do the tasks at the same time. It is observed that students are involved in the activities because the teacher's attitude is friendly and polite and her voice is very comprehensible and louder. The learners seem to be motivated doing the tasks using the computers; the students are motivated as a consequence of this they are interested to do the tasks. They participate a lot and ask many questions to the teacher about the tasks. It is also observed that most of them are more involved in class using the lab in comparison to the learning process in the conventional class. Apart from that, it is seen that many students enjoy working both, alone and in groups and they put into practice the different skills through the activities with ICTs like using power point or reading the text given by teacher. Nevertheless, there are some students with bad behavior, as a consequence of this; they do not want to do the exercises. Students are constantly monitored by the teacher to avoid the use of entertain activities such as, social networks. Some students show enthusiasm especially when they help their classmates doing difficulties tasks, applying the language and

using the computer. Besides that, many of the students demonstrate the interest working with one computer to share ideas and complete the tasks.

The teacher shows the activities in a Power Point using the Present and Past tenses in Active and Passive Voice and then revises the grammar structure, after that, he shows a dispositive with a short text in active voice in order to change into passive in addition, the students can use the format and images that they have want. The Students appear to be motivated to complete the tasks, and it is observed that they enjoy the online activity and the way that the teacher transmits the knowledge.

3.3 Interviews

During this period five teachers are interviewed; four English teachers who teaches in public school and one Informatics Engineer who teaches in the technical school, they show their different opinion about what ICTs are; if they consider as an important resource to improve their learning process, in addition to this, what kind of ICTs they general use in their daily life. According to the collected data by the interviews, it is possible to know a variety of answers given by the teachers with respect of the use of technology in the classroom and outside it. These answers provide information about the effect on students' motivation; when they learn English and apply the technology in addition to this, they can reflect the teacher`s view about the advantages and disadvantages in ICTs usage in the classroom.

3.4 Elicitation

As it is explained in the previous section, the students' opinion is elicited through observations and surveys in order to find out how they would deal with the computing vocabulary and how they manage to resolve different activities.

3.5 Student's survey

Survey is considered as detailed study of a market or geographical area to gather data on attitudes, impressions, opinions, satisfaction level, etc, by polling a section of the population.(Cambridge English dictionary, 2015).

Collecting data with surveys allows a teacher to engage learners and gather the information needed to set more meaningful and personalized objectives. The survey is done to twenty two students between seventeen to eighteen years old; seven boys and fifteen girls. In the answer related to the first question 90% of students have a computer at home, and The 10% of them do not have a PC.

In the following question, 43% of students know the parts of the computer, so that 57% don't know the parts of it, for this reason, they consider appropriate using technology to learn.

In the third question, what parts of the pc do you know? Students answer; 27% motivation, 20 % CPU, 9% motherboard, 33% mouse, 11% keyboard.

In the fourth question 100 % students consider as necessary the net book for each ones, especially when they have to make individual tasks.

The question number five argues that, it is useful the computer lab, so 36% of students answer yes, 41 % as little, and finally 23% of students consider as much and necessary the lab in order to learn English, they think that the space is a medium to interact with classmates and develop the knowledge.

In the following question what kind of PC do you use at home? The majority of students consider as more useful and helpful the laptop and a considerable number of students (24 %) use the desktop.

Students think that the main pros applying ICTs are: access information, motivation and reduce cost but they do not consider as an advantage

increase retention. In addition to this, students consider other important point to be considered as pros the increase of participation, self-confidence and enthusiasm.

Some students more exactly 71% give appropriate use to the ICTs when they have to make exercises or an evaluation so the rest of the students (29%) use the ICTs to entertain.

A major number of learners like to use ICTs in class (86%) and the rest prefer to practice in their house.

In the last question 73% of students feel motivated when teacher use ICTs, the rest of the learners think that ICTs in some manners really motivate, this is reflected in the academic background that establish the results of motivation from the interaction of both conscious and unconscious factors such as the intensity of desire and expectations of the individual and the peers.

3.6 Evaluation

Evaluating the students is the other fast way of gathering individual information. A test is worked out in which all the learning styles can be evaluated. It includes an activity in which the students can relate images and use additional information, another task; the students have to practice the reading comprehension ability. Firstly, it is a true or false. Secondly, there is a reading, students have to looking for the new vocabulary and translate the text. The third activity, students have to find some technical terms and make some sentences into simple pass and then turn into passive voice. Finally, they have to make a power point about the information given by the teacher and show in front of the class.

3.7 Development of the classes

First Class

The classes are given in the fifth year of private school called Technical Herminio Arrieta in the town of Libertador General San Martin, province of Jujuy.

During the first class the teacher gives students a piece of paper with a pin in order to write their name and introduce themselves. The teacher makes first the presentation and asks them to make the same.

The teacher sticks some pictures on the board about two robots and asks them to look at the pictures and finds differences and similitude about them in order to break the ice and induces in the students confidence and motivation, this strategy is called warm up so that, a warm-up helps the body prepare itself for exercise and reduces the chance of injury. The warm-up should be a combination of rhythmic exercise which begins to raise the heart rate and rise static stretching through a full range of motion.

After that he gives a text about technology called “The cyberthinker of tomorrow”. Firstly, he asks to read in silence in order to understand the meaning of the word and the general idea of the text and then he reads louder in order to check the meaning of the new words and the pronunciation. After that, he checks the new word through synonyms and graphics.

The first activity is about true and false. The second one is a Questionnaire to check understanding. For example; find as many differences as you can between the two robots, Cog and Cyc.

In the final activity students have to make a translation, so they have to use the electronic dictionary loading on their mobile phones. At the end of the class, the teacher asks them to looking for information about the parts of the computer.

Second Class

In the development of the second class the teacher shows the students a video about the main parts of the PC and asks those to make a power point with the information searched the previous class. He solicits them to use graphics, pictures and write additional information. Then, he provides them a copy about the parts of the computer and a passage about them, this is called “The Computer”, students have to copy the reading on the PC and make the translation, after that they have to send the translation by email.

At the end of the class students have to present in front of the class a power point about the data investigated the previous day.

Third Class

During the last class the teacher sends the students to the informatics lab in order to show the parts of the computer and teaches some characteristics of them through the desktop. He commands to seat each student with one computer on the way to show a video about the parts of the PC. After that, he provides them a text about System Unit, Mouse, Keyboard, Monitor, Printer and Speaker. The teacher gives them a Work Practice about the text, the first part is a reading so students have to answer the questions related to the text. Secondly, students have to find five technical terms in the text and write sentences into simple past in active and turn into passive. Finally students have to make the translation of the text and send the task by email.

3.8 Analysis of Data

The data are obtained from the observation of the students’ work and participation that show the strategies they use and allow them to resolve the activities

propose by the teacher without any difficulties, since they are allowed to work in pairs and ask for help to the partner including the teacher whenever it is necessary.

The interviewed teachers are Salinas Valentine Juana, English Teacher who received her degree in the University of Tucuman, she teaches in an Agrotecnica school N° 3 in Ledesma, Jujuy, Puca Maria Luisa, English Teacher in a Rural School in Cochinoca N° 270, Leguizamon Raul Sebastian, Informatics Engineer, who teaches in Technical School Engineer Herminio Arrieta, Orgas Gabriela, who teaches in a Commercial School N° 2 Doctor Manuel Belgrano Palpala and Corbalan Ada Lidia, she received her degree in IES N° 6 teaches in Bachillerato N° 2 Palpala.

When the interviewed teachers are asked about the meaning of ICTs, most of them define this tendency as technological tools to facilitate teaching; it is the process that includes any communication device or application. These answers show that the teachers have a clear idea of what ICTs are. The teachers consider that technology is very important and may enrich the lessons, not only for motivation, also, encourage the students to learn the language. Technology plays an important role in the educational field. Students can prepare their future using educational materials. Those materials are easy available, because of information technology. Teachers are able to deliver content effortlessly to students and can also research complex subject in the classrooms itself. Technology makes more dynamics the class. It helps students to be more active and progress in their learning. It is important as means of communication.

The teachers consider that technology may offer more information, and facilitates the knowledge. It can save time in preparing lessons. It can reduce the use of paper for tasks or tests; in the same way, it can simplify the evaluation stages using interactive material. As for students, it can help them to demonstrate their abilities to use different tools and programs as well as to develop original ideas for the presentation

of the different tasks. Moreover, the use of technology may reinforce the collaborative work in the classroom and strengthen relationships while working since students themselves may aid each other at the moment of working with it.

Some teachers believe that ICTs provide good access to the information; it helps to set more contents, motivate the learners and save time. This information can be reflected in the theoretical background on page thirty two.

Teachers think that technology is an excellent medium to motivate the learners and it can convey and amount interesting material for them, using videos, pictures, and online exercises and so on. Students can realize that learning a language is not so difficult through this mechanism because nowadays, the knowledge is a resource that is available to everyone applying information and communication technologies.

According to the improvement in the development of the learning process, the technology takes an important role in the development of the classes, when they are extremely ordinary and boring, in some cases, traditional classes may be improved when the teachers use video chat, Power Point and excel. Most of the teachers collaborate to share their ideas and resources online; students can develop valuable research skills.

Numerous educators consider that school has offered the opportunity to use internet in the classroom and to how to use the personal computer in the class. Unfortunately, most school does not have the necessary tools to work with learners because of the connection of the web. The net books have facilitated the use of technology to find out and acquire the students need. In general, students prefer to use internet, mobile phones, notebooks, facebook, twitter, TV and the like.

In the question number nine, some teachers think that, the use of technology can both time saving and a waste of time. It can be time saving in the classroom once

students have put everything together and they are ready to work because they can use the net books, a projector or a tape recorder to develop classes but sometimes students may forget their net books, or they may do not know how to work with certain computer programs. Even if, every school have their own language classroom and all the necessary technology in it, language lessons would be more productive and technology itself would be time saving. In a generally sense the technology allows the teachers and learners to load bibliography. On the other hand, there are many factors that would contribute to the successful integration of technology such as schools providing a language classroom, the tools to work with in the classroom since some teachers have to carry their own tape recorders or projectors from one school to the other in addition to this, the lesson plan well organized to the teachers, the tone of the voice, the teacher attitude and the atmosphere of the class. Otherwise, some teachers consider that the materials or the technologies do not guarantee the successful of the class; all depend of the motivation and the inner wish of the learners.

There are two teachers that do not use electronic dictionaries and the rest of them consider appropriate and useful this resource. In addition to this, some students find them useful to work and make the translation or just to check meaning. An interview teacher said; the students use electronic dictionaries because they have them on the mobile phone in order to work all the classes to make the translation, or just to looking for the meaning of unknown words. The vast majority of teachers use the project to develop the class in order to work with Power Point, using images as tools and objects for fixing when teaching some topics furthermore, they use copies from different books in order to practice applying the electronic dictionary to look for the new vocabulary and do the translation.

The role of information and communication technologies in education raise some fundamental issues and questions whether ICTs are suited to transmitting knowledge, particularly to students who are not already highly motivated to learn or well versed in the art of using and interpreting information. Information is being used to improve students' performance, mainly because education managers are largely illiterate in information management tools. Likewise, despite schools having more and more access to ICTs, new technologies are still scarcely used as part of the teaching methodology. Once again, it is the lack of training that creates difficulties: many teachers do not have the necessary technological skills and feel uncomfortable what is more; they do not have the specific training needed to be able to use the new resources in the classroom. Many educators fear that without major restructuring of schools, such as allowing teachers much more flexibility in controlling the curriculum, opening up the time-in-grade system to that of student movement based on individual progress in meeting instructional goals, and other improvement to the educational system no significant changes will or can be made, with or without technology.

Among the most significant obstacles to be considered are:

- The hardware necessary to conduct sophisticated artificial intelligence research is extremely expensive.
- The installed base of technologies in the schools today is not powerful enough to run some of the more sophisticated software applications produced by advances research.

These barriers mentioned previously show that there are disadvantages in technology usage that in the following years will be overcome by the cons to improve the learning process.

4. Conclusion

The argument established about the understanding of technology advice that there are a great number of for and against. Different points of view are discussed about how useful it can be to integrate technological tools to teach a language and the processes and features that teachers need to consider and think about before making use of online materials, electronic devices, etc. It is also clear that teachers are aware of the existence of an extensive range of possibilities that the net offers to teach languages. However, as it is mentioned above, the use of internet is splendid but it has to be used with responsibility and professionalism.

This study set out to investigate what advantages and disadvantages are involved in the use of ICTs in 5^o years of high school Technical Herminie Arrieta.

The aims raised in this work of investigation are fulfilled because it is possible to determine that the pros in the application of technology overcome the cons. The interest in this research work regarding technology focuses on investigate and learn the benefits of ICTs usage in the classroom, as well as provides a pedagogical proposal to the educational community about ICTs their benefits and limitations; through these claims can be validated the objectives of this project, as well as the methodology chosen combining qualitative and quantitative systems because the aims are; understand, interpret and quantify the data getting through observation, surveys and interviews that are made to students and teachers. Information and communication technologies contain a very broad term that includes not only the internal and external parts of the computer in addition, all the technological media that convey direct and indirect information.

It was also possible to analyze different points of view, concepts and ideas of different authors about technology incorporation and teachers' opinions regarding the

pros and cons of technology usage. The observation of the class allowed to witness teachers' and students real experiences when implementing technology what is more, it is possible to find out their feeling and knowledge about ICTs and the interviews give the possibility to hear their actual opinions about the investigated theme that is to say, their points of view about the factors that influence the technology usage. Other instruments use to pick up the data are the elicitation and the evaluation as it is mention in the introduction, the aims of this techniques are find as much as possible the facts about the pros and pitfall about the technology usage.

Fortunately, it was not hard to find teachers willing to share their experiences as language teachers. As regards the observation of the classes, it was possible to watch the lessons because head teachers gave their permission to enter the school buildings.

To sum up, there are more pros that overcome the cons when making use of technology in English Language Teaching. However, the teachers decide whether to apply or not technology in their lessons in order to improve the learning process and to help students in their needs. Besides, teachers are convinced that the methodology to teach a language as well as educational contact are necessary so that, they should increase students their self-reliance and have a good control of the language in addition to this, the teachers should guide the students to reflect upon their own learning and give them powerful tools for their future language development.

4.1 Final Comments

All things considered; this research paper is the second thesis which I have the honor to perform for “FASTA University”. This is a great advantage when facing an investigation, without neglecting that the development of this work helps me to enrich my knowledge and broaden my expectations with regard to English and technology.

With the completion of this research paper I could gain more trust and confidence in my skills and encourage continuing the study in the University, in addition to this, I can value the cultural level of the teachers, their quality as a human being especially because of the dedication to prepare the materials using in the platform.

This final work took a lot of sacrifice because I had to mix the time of my work, family and studies but with the unconditional support of the Magister Maria Fernanda ,a beautiful person, the Coordinator Marcelo, the Secretaries Mario and Natalia, and also with the unqualified support of my family, I could get ahead. Writing this thesis provoked diverse feelings in my person, such as fear and mistrust anxiety because sometimes I was discouraged since I could not pass the final exams but thank to God I was able to reach my goals.

Professionally, I could realize that the advantages of the technology outweigh the disadvantages using in the classroom and through this tendency teachers may raise student’s self-esteem and help them in the learning process. The objective of this project is to inspire and help teachers who read this thesis and identify what are the advantages and disadvantages in ICTs usage in the classroom, and to provide them a pedagogical model for guidance in teaching process. This research allowed me to grow as a teacher and human being and realize that everything can be if I have faith and self confidence.

Finally, I would like to end this job with the holy words of the “Father Bergoglio”; “Through technology people can find the vocation of the whole Church and the social network is now one of the places to live their vocation rediscovering the beauty of faith and the loveliness of Christ. The walls that divide human being can only be overcome if they are willing to listen and learn from each other. They need to resolve differences through dialogue and one of the most suitable ways is the technology. Communicating means, therefore, to realize that all are human, children of God. He finally says, I would like to define this power of communication as "proximity". (**Pope Francis, 2015**”).

Appendix

a. CD Player



Figure 1

b. Sound and Video Files



Figure 2

c. Speaker



Figure 3

d. Microphone-hearing aids



Figure 4

e. Webcams



Figure 5

f. Printer



Figure 6

g. Scanner



Figure 7

h. Television



Figure 8

i. Projectors



Figure 9

j. DVDs



Figure 10

k. Sound equipment



Figure 11

l. Digital Cameras



Figure 12

Interview (sample)

1- What is ICT, for you?

.....

.....

2- Do you think it is important to use technology in the classroom?

.....

.....

3- What types of opportunities do ICTs offer?

.....

.....

4- Do you know what kinds of advantages have the ICTs using in the classroom?

.....

.....

5- In what manner do you consider technology is motivating?

.....

.....

6- How ICTs enhancing the development of the learning process?

.....
.....

7- Does your school propose opportunities to use ICTs in your English classes?

Which opportunities?

.....
.....

8- Do you know if your learners using technology outside the language classroom?

.....
.....

9- Do you think that the use of technology can be time saving? Why?

.....
.....

10- Which, in your opinion, are the factors that would contribute to the successful integration of ICTs?

.....

.....

11- Do you make your individual online material?

.....

.....

12- Have you ever used electronic dictionaries?

.....

.....

13- What kind of ICTs do you use to develop your class?

.....

.....

Learner's Survey (sample)

Date:

Age:

Course:

Male:

Female:

Do you have a computer at home?

Yes..... No.....

Do you know the parts of the computer?

Yes..... No.....

What parts of the PC do you know?

Monitor..... CPU..... Motherboard... Mouse..... Keyboard.....

Do you consider that it is necessary that each student has a notebook at school?

Yes..... No.....

Do you consider as useful the computer lab?

Yes..... little..... Much..... No.....

Do you have internet access at school?

Yes..... Often..... sometimes..... No.....

What kind of PC do you employ at home?

Laptop..... Desktop.....

In your opinion what are the main pros in ICTs usage in class?

Motivation.....

Reduce cost.....

Increase retention.....

Access information.....

Do you provide good access to the ICTs?

Yes..... sometimes..... No.....

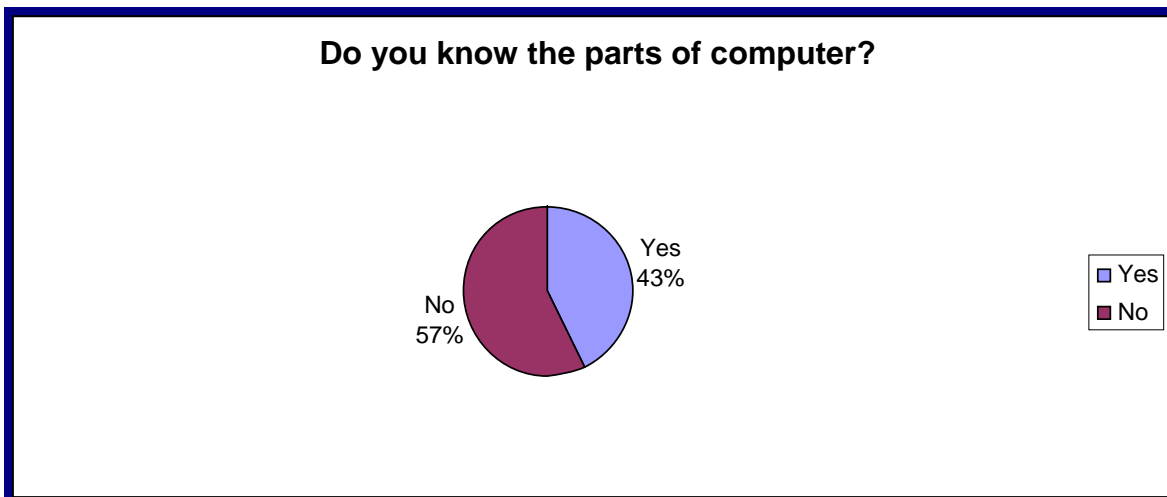
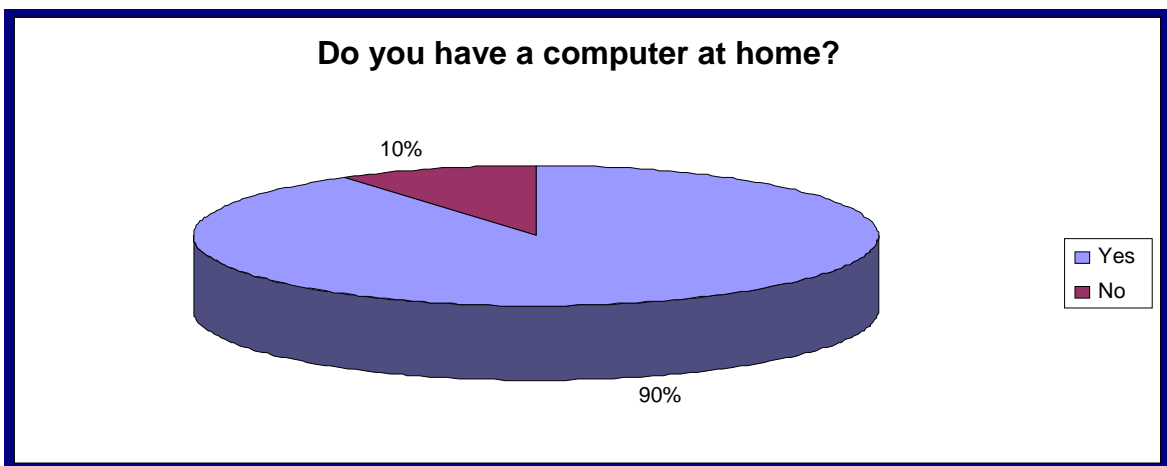
Do you enjoy using technology in class?

Yes..... No.....

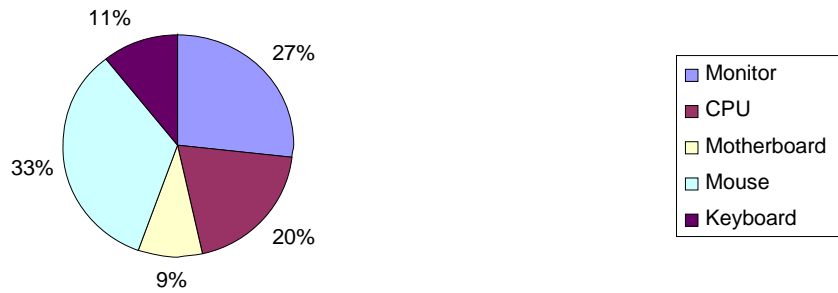
Do you feel motivated when the teacher applies ICTs in class?

Yes..... Sometimes..... No.....

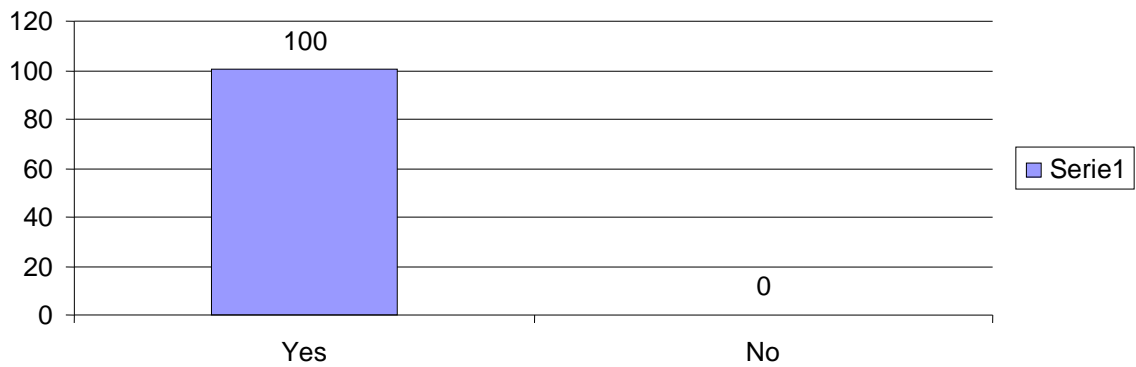
Graphics of student's survey



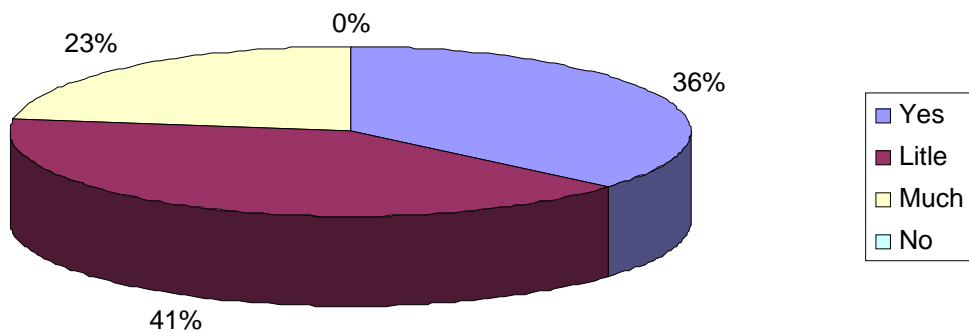
What parts of the computer do you know?

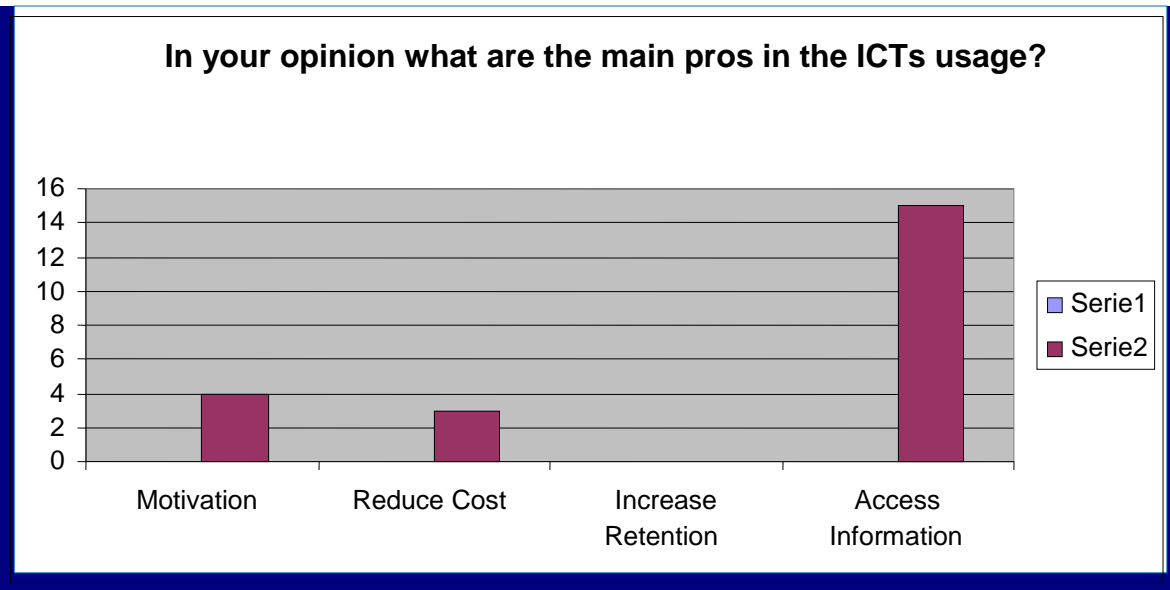
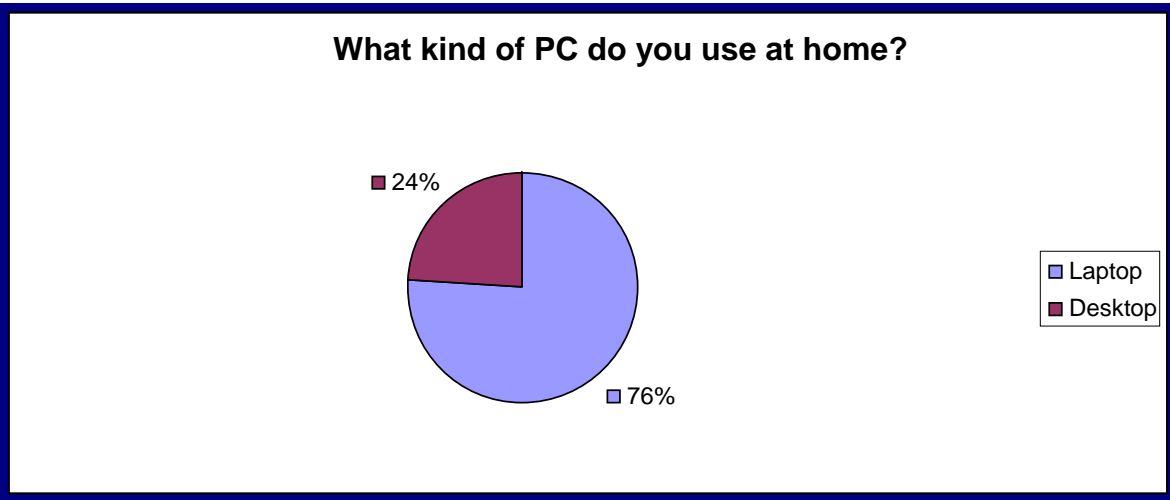
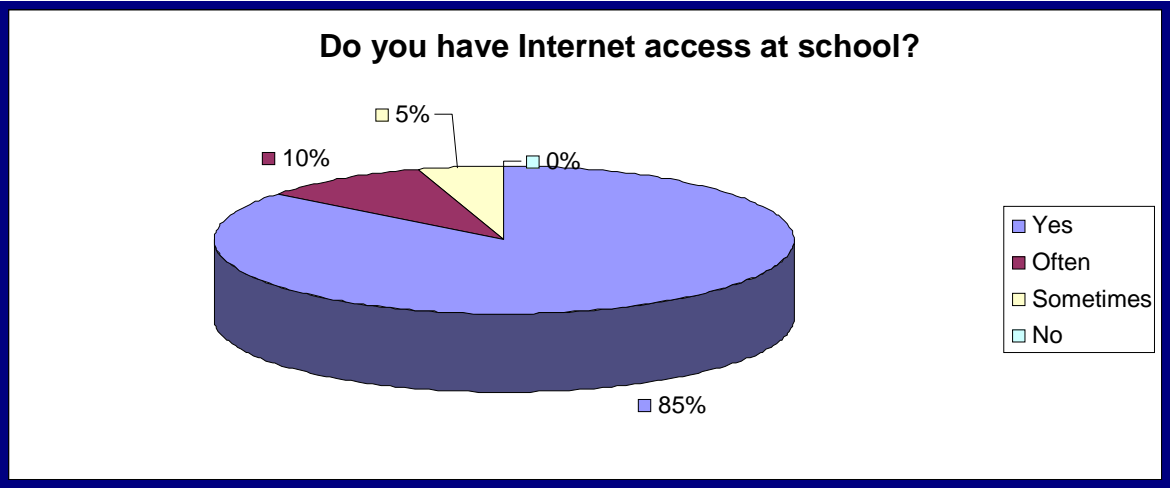


Is it necessary that each student has got a notebook at school?

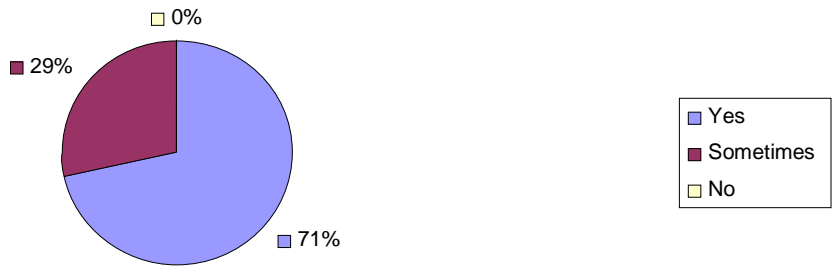


Do you consider as useful the Computer Lab?

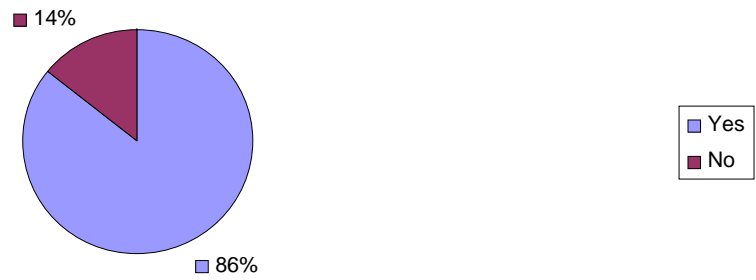




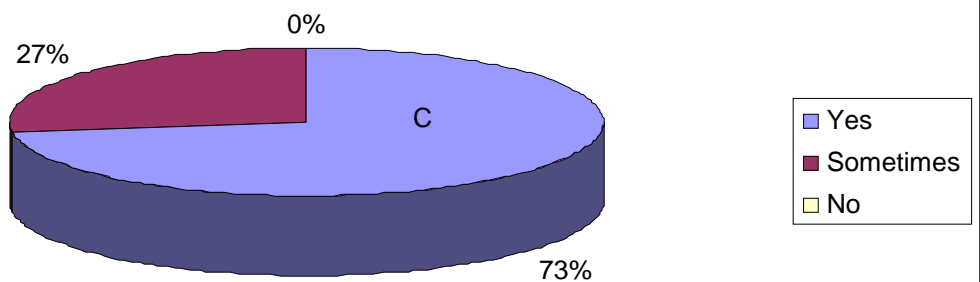
Do you provide good use to the ICTs?



Do you enjoy using technology in class?



Do you feel motivated when the teacher uses ICTs in class?



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