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The effects of technology in the acquisition of listening in the English as a Foreign Language classroom in the Costa Rican educational system

Universidad Latina de Costa Rica

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CHAPTER I

INTRODUCTION

1.1 - Purpose of the study

Human beings have made great technological discoveries during the last decade. Several advances have been made in fields such as science, medicine and robotics. These new technological devices are present in various areas of daily life; in homes, offices and classrooms. The latter has been largely affected by it, and technologies have begun to change the way the act of teaching is done.

Although all four language skills, listening, speaking, reading and writing are considered equally important by most educators, listening skills are crucial in second language learning, as a vast majority of the information received from the target language is obtained through the listening ability.

For the purposes of this research, the uses of technology in an English classroom that relate specifically to the listening skills of students will be examined, and also how this ability is directly affected by the use of these technologies.

In addition, it is necessary to study the current state of the use of technological devices and resources in the classroom, the different technologies applied in English classrooms in other social contexts, and apply those available in a class to acquire greater knowledge of their positive or negative impact for students.

1.2.1 - General objective:

To analyze the effects of technology regarding the acquisition of listening in the English as a Foreign Language classroom in the Costa Rican educational system.

1.2.2 - Specific objectives:

- To identify some appropriate technological resources that could be used in English as a foreign language classroom to develop listening skills.

- To demonstrate positive effects of the use of technological resources to improve the ability to listen in a class of English as a foreign language.

1.3 - Research questions

How does technology positively impact the development of the student's listening skills in the EFL classroom?

1.4 - Significance of the study

Since childhood, the natural method of language learning, even in the mother tongue, is given through listening and repetition, so it is very important to work on listening skills to develop a better understanding of the language that is intended to teach. The problematic that this research will be based on is the necessity to understand the effect of technological advances on such skills in English as a foreign language classroom.

On the other hand, as a general principle, in order to integrate technology into education and into classrooms, a very crucial fact must be taken into account; the motivation of the instructors for the use of technological devices in the educational process. This is because a disaffected teacher, without the desire to teach by these means, probably will not explore all learning opportunities to motivate students and will not worry about the problems they may have during the teaching-learning process. In addition, there are time constraints that often discourage educators from attending technological training courses because they are not mandatory and there are few formal incentives to attend. Training may be valuable to some

education professionals who are not up to date with technology and who are therefore unable to develop classes on which they rely much more on its use.

From the learner's point of view, and the process in which they develop, the application of these tools allows them to study in a non-traditional way making the process lighter and more meaningful. This is because the use of technological resources allows teachers to creatively evaluate and open up new opportunities to create personalized material for students.

In addition, with the implementation of these technological resources, the benefits increase in terms of time, since using this type of tools can be the key to accelerate the learning process and at the same time enhance and take advantage of every minute students spend in class.

It is for this reason that one of the priorities of the research established here is the possibility of demonstrating the usefulness and feasibility of the use of such tools. Also, denoting which of them presents greater effectiveness for the development of the listening ability, and therefore encouraging the change in teachers towards a broader management of them as a mean of facilitating learning for students.

CHAPTER II

LITERATURE REVIEW

2.1 – References

Learning English has become a priority for the Costa Rican educational system, since this new language allows to obtain more opportunities of study and work. In addition to that, there is a growing technological development that the country has experienced. The ability of utilizing correctly computers and computer networks, such as the Internet, is fundamental in diverse productive and recreational activities. In the same way, the need to incorporate these technologies into pedagogical practices has emerged as part of new teaching strategies and methodologies.

According to the 2014 National Assessment of Educational Progress (NAEP) Technology and Engineering Literacy framework defines technology as "any modification of the natural world done to fulfill human needs or desires." (National Assessment of Educational Progress, 2016) Technology is therefore, not attached to a concept of a single device or social media. It englobes a wide range of artifacts, applications, and utilities that humans have available to make tasks easier.

2.1.1 - The technological approach

Considering the capability that technology has in order to diminish efforts, professionals have used it for all sorts of purposes. Teachers, for example, use audiovisual materials and gadgets as important tools for student learning in all areas of education. Some of these commonly used resources in the classroom are projectors, computers, Power Point presentations, recordings, and certain other materials which are overexploited by the teachers as they do not innovate in the creation of different types of materials to achieve a better learning. According with Lai, the use of technology has increased significantly in other parts of the world.

Steel and Levy surveyed 587 university undergraduate foreign-language students in Australia on their use of technologies outside the classroom and found that specific technologies (e.g. online dictionaries, web-based translators, conjugation websites) were the most frequently used technological tool and the students valued the tools that help them acquire the basics through repeated practice. In addition, YouTube and online movie social network sites and mobile-phones applications were also reported being used by 50 per cent of the participants. (Lai, 2017)

This information points out the fact that the implementation of technology does help the students achieve their goals in the English classroom. Moreover, the students are already used to technology at home. They use cell phones, applications, software, computers and much more whilst in the classroom they are limited to what the teacher brings them. This means that if the teacher does not make an effort to bring more interactive activities related with technology, the technological gap created between the school and home will likely cause a decrease in student's motivation and attention.

In the English classroom the use of multimedia systems is not new, the radio-cassettes were inseparable companions of teachers of languages when still no other teacher of the other subjects used them.

The reason behind the early adoption of technology in the classroom was precisely that one of the areas that needed the use of audiovisual media the most was English and language in general. This was because to reach a level of both pronunciation and proper understanding of this language, it was necessary to listen to native people in real situations of daily life, as well as to know the characteristics of the culture of English-speaking countries.

The success of this early adoption comes to demonstrate that language acquisition is achieved more efficiently through the use of technology.

Being able to access videos, websites, make video conferences with schools' foreigners, listen to native country radios, watch DVDs, and listen to CDs, result in meaningful and motivational learning of a new language. Hence, avoiding the use of textbooks as it was done traditionally, and that made the English lessons be seen by students as monotonous and boring.

Some other researches made about this topic point out that the use of technology affect the students' learning process positively. According to Benmadani Nadjah on an investigation made for the Mohamed Kheider University, Biskra mention:

> ...how could the language laboratory enhance the students' aural skill effectively. To investigate this, we have carried out a research that consisted of a questionnaire designed to show us the students attitudes about listening skill and the use of language laboratory, and a questionnaire for teachers to check if they are aware of listening skill importance in foreign language teaching plus of their students' problems as well as their attitudes about the use of language lab in the teaching process. The results of the data analysis confirm our hypothesis that language laboratory plays a major role in improving EFL learners' listening skill. (Nadjah, 2013)

Under the same line, an investigation made by Kwang Hee Hon for The Ohio State University, about primary issues concerned with CALL (Computer-Assisted Language Learning), he concludes that:

Embracing the outwardly fragmental variables can lead to a fresh insight into L2 teachers' integration of computer technology pertaining to their experience of technology education. In this sense, it is possible to glean from previous research three categorized factors that not only capture the quintessence of L2 teachers' technology integration but also summarize the process of L2 teachers' integration of computer technology into the classroom: CALL teacher education, teachers' individual factors, and contextual factors. While the importance of these factors cannot be placed, with absolute certainty, in a sequential order, previous studies suggest that well-organized and well-prepared CALL technology education is considered to be relatively more salient pertaining to teachers' technology integration than teachers' individual factors and contextual factors (Hong, 2009)

Another investigation made about The Use of Technology to Enhance English Language (ESL) Teaching by Ryan Baker made some valuable conclusions about some of the problems presented by the students towards the English Classes

After completing our observations and studies of the students, we believe that the most important problems are the students' lack of meaningful exposure to the English language, a lack of confidence in their English skills, and a disinterest in the topics being discussed. Each of these problems ultimately leads to the students being apprehensive and/or reluctant to participate inside of the English classroom, meaning that they are unlikely to gain as much knowledge from the class as they might otherwise have.

In order to determine which technology could most viably be integrated into the Caritas Institute of Higher Education's English program, we first determined which technologies were being used both inside and outside of the classroom. Using the methods described in chapter 3, we investigated possible changes to the curriculum based on the current use of

technology compared to the possible use of technology. We found that, in general, technology was not being used to its full potential. We identified a few possible solutions for using technology to induce student engagement in English courses

One of the major problems the lecturers needed to tackle was the lack of motivation and interest in the subject among the students. In order to keep the students interested and attentive, the instructors often would try to integrate different kinds of media into their pedagogical methods. Some of the teachers turned to YouTube as a source of additional content for their classes. Some instructors would use videos of songs found on YouTube during class time in order to keep the students engaged and exercising their listening skills. Other teachers asked the students to use YouTube to practice their speaking skills by listening to different videos and then repeating what the video said. This simple exercise aims to improve the student's pronunciation and fluency in speech. For this to work, the instructors generally use informative documentary videos, which the students would have no trouble understanding. In these situations, the instructors were using YouTube as a platform to find more content and create more diversity in the media used in their teaching methods. (Baker, 2015)

2.1.2 - Different types of audiovisuals for the ESL class

Some of the most common audiovisual resources found in the ESL classrooms include:

Audio / Music.

Some of the examples of these type of materials that can be used for the development of oral and listening comprehension of students are CDs of different famous singers, children's songs, radio programs in English, real conversations between native people, karaoke, etc. Listening without pictures allows children to focus more attention on what they are listening

to without visual distractions, and thus emphasize more on learning pronunciation and understanding what they are hearing.

Videos

These represent a quite motivating element in the classroom thanks to the visuals that allows to capture the attention of the child and facilitate the listening comprehension. This is specifically due to the visualization of the context where the communicative situation occurs. Also, the use of movies or series that are fashionable among children makes children show more attention during viewing. Some common examples of this are movies, TV series, short stories, video clips (with or without subtitles), creating home videos, etc.

Computer games

These contain a wide range of possibilities such as complete, search, relate, correct pronunciation, strategy, follow commands, etc. In this type of resource, we also find a motivating element for children, and the fact that they do it individually in a computer can make them see it as a "test" to their knowledge. These computer games manage to take out their competitive spirit in relation with their peers, therefore students show more interest and effort when participating in classroom activities that include these.

Websites

Websites include different applications such as games, online courses, useful information and a wide variety of activities. They are of great help to achieve the goals of an English session. This resource is useful since it can give provide a vast number of ideas and appropriate information for the development of theory as well as for different strategies and activities.

2.1.3 - Developing listening

Having explained all the options available to teachers for the development of English proficiency, the next step is to explain the functionality of these in regards to the main language skills.

Learning a foreign language involves the development of four important skills that correspond to writing, speaking, reading and listening; of which the first two have long been considered by academics as active skills and the latter two as passive skills. However, this concept has changed mainly at the level of the auditory comprehension, since now it is considered a linguistic ability that the students can develop in an active way avoiding to fall into the error of hearing instead of listening.

Under this line of thought, Gary Buck, author of Assessing Listening, defines "Listening as a complex cognitive, individual and inferential process." (Buck, 2001)
Because it is a dynamic process, finding a single definition for listening is a difficult task. For example, Wipf, in the article Strategies for Teaching Second Language Listening Comprehension, defined listening comprehension as an invisible mental process difficult to describe in which people who listen should discriminate between different sounds, understand vocabulary and grammatical structures, interpret the emphasis and intention, and retain and interpret all of this both within the immediate context and within a wider socio-cultural context (Wipf, 1984). It is clear that listening comprehension is an active process that involves the understanding of: phonemes, emphasis, intonation, speed and meaning of what is being heard.

For this process to occur, according to Douglas Brown in his text Assessing Listening describes that when we hear four processes occur in the brain: we recognize sounds; we simultaneously determine the type of discourse in question; we interpret the literal message and try to infer from the explicit and finally, we select information: we only retain the information we consider most important or relevant (where long-term memory intervenes) (Brown, 2004)

2.1.4 - Specific technologies used on listening

To reinforce that active process that the brain needs to go through in order to achieve listening proficiency, the students need to be completely focused and must have their full attention towards what is being taught. As explained in the previous section, the use of technology as a way to motivate students, and to catch their attention becomes crucial in the development of this important language skill. Some of the applications that technology could have in a listening comprehension, or listening development activity are:

Film and Video

Using short videos is an engaging way to work on skills like vocabulary and comprehension. Videos help to expose students to the use of natural English. Young children really enjoy short cartoons and animated movies, and older students can learn about current events through news broadcasts. Adapting these videos to specific vocabulary is simple if the right video is selected. For example, in a class in which vocabulary about traveling to a different country would be explained, the teacher is able to use a video of a person going into an airport, being asked about his passport, paying for the plane ticket, and boarding the plane. Then, the teacher could ask the students to write down any number of words mentioned in the video that are part of the provided vocabulary for the class. (Zakhareuski, 2017)

Similarly, in a class in which the main focus is typical food, the teacher could look for a video in which a recipe is explained, or in which a person goes to a restaurant and asks the waiter or waitress about specific plates and their ingredients. This sort of videos is regularly found on the internet. However, if they are not found, the teacher could also develop a more complex project in which the students would be required to create the video themselves and then present it to the class, or the instructor could develop the video himself.

Apps

Apps on iPads and tablets are great ways for students to practice English and have fun while doing it. For practicing grammar rules, apps like Grammar Up allow students to test their knowledge on specific topics (verbs, prepositions, etc.). This app also keeps track of students' progress and allows them to skip questions by shaking the tablet. Students can also play classic games like Scrabble and Boggle on mobile devices. (Zakhareuski, 2017)

Audio books

These can be used to supplement reading instruction and improve comprehension. A typical Costa Rican English student does not usually read. However, through the use of audio books, which can easily be gotten for free from the internet, the students would have a way to use their technology at home, and in the class, to develop not only the reading ability, but the listening ability. Audiobooks are a fun way to get people who do not like to read, to at least get more engaged with reading small books, or short stories. There are thousands of audiobooks available on many different topics online, and taking advantage of those in an English literature class or any regular class is a way to get more students engaged with the topics, and with the language itself. (Zakhareuski, 2017)

2.1.5 - Positive aspects of the use of technology in classes

Since technology is something that students interact with regularly outside of school and students need 21st century skills to be successful in college and their future careers, the more that technology can be integrated into instruction, the better. Through the use of these techniques explained before, the students would be able to achieve a higher level of English proficiency. Since the use of these gadgets, resources, and materials for the development of the listening ability can have several positive impacts in the students as mentioned by Vallejo (2012):

- They increase the effectiveness of learning by enriching the limited results of a presentation of conventional information, based on printed text and voice.
- They provide experiences that would otherwise be completely inaccessible.
- They are motivators and stimulate the attention and receptivity of the student.
- They encourage participation, creativity, interest in a subject, and critical thinking.
- Students exercise in the integrated use of materials with little memoristic learning.
- Video recordings allows lots of room for feedback, critical analysis and guidance

However, to be able to identify the specific impact that the use of technology could have in a Costa Rican ESL classroom, it is mandatory to develop a research that is localized. Through the analysis of the results, the positive impact that this could have will be clearer and will denote the importance of immediate implementation in all of Costa Rica's ESL classes.

2.2 - Summary

This section explains the different concepts that are involved in the educational process regarding the topic of the research. The section starts with the general concepts and definitions and moves towards the correct use of these according with the research paper. Some of the most important topics covered are the use of technology in the classroom, the different technological resources that can be used inside the class, such as music, videos, computer games, apps, etc.

Another important aspect covered in this section relies on the previous researches done by other professionals about this topic. Some of the discoveries that were made from those were, for example, that the use of technology directly affects student's motivation inside the class. Also, that the lack of use of these resources usually comes from a diminished knowledge of the teachers about the possible options to use in the language learning process.

Besides that, section II mentioned briefly, some of the possibilities that teachers may have in future classes thanks to the developing technologies that are going to be available in the upcoming years or decades. With the implementation of the currently available strategies, the teaching process will improve, and implementing these additional new technologies when they become available, will definitely provide the students, and the teachers, an outstanding way to perform better in each class.

The last part of the section refers precisely to the reasons why the use of technology is necessary in the classroom. The use of these resources provides a highly valuable amount of motivation for the students as well as it promotes critical thinking and learning by discovery. All of these aspects seen in section number two are related to the current stage of education in the Costa Rican educational system and reflects the necessities of this specific system.

CHAPTER III

PROCEDURES

3.1 - Rationalization

For the development of this project the work methodology was based on an action research design, since the importance of this type of research lies in the research and modification of the educational practice to improve it if possible.

The action research has its focus on the actor (in this case, the teacher), who formulates the plans for recognition of the need for improvement or improvement of teaching in the classroom. In addition, emphasis is placed on the teacher's self-examination (self-reflection) to determine which strategies are more or less effective in the teaching process; and the power to decide on the design and interpretation rests with the research professor.

According to Stephen A. Small, in the action research the theories are not validated independently and then applied to the practice, but are validated by the practice itself. It emphasizes that the main objective is not the production of knowledge, as in traditional research, but the improvement of educational practice, and all knowledge creation must be subordinated to it. For him, improving the practice is to make it more educational, both in the processes and in the results, in the means and in the ends. (Small, 2005)

3.2 - Methodology

The research design chosen for this research is both, quantitative and qualitative. In this study, data will be collected to answer the questions related to the opinion about the attitude towards the listening skill in classes and the techniques that are used the most. Through the use of closed questions, the information from students is gathered and used to create a sample.

In order to gather information and develop the practical- theoretical foundations of the
research, bibliographical consultations will be made on the related subject based on the books
included in the bibliography. Also, the survey technique will be used for which a
questionnaire will be prepared that will be previously approved to be applied to the source;
students. This will allow the collection of the information to identify the techniques and
technology used previously, and the results of the new techniques and technology that will be
implemented.

Prior to the implementation of technology during the English classes, a survey will be
designed and applied to each participant of the sample. The first survey is focused on
understanding the perception of their listening comprehension and about the activities and
exercises developed in the English classes to promote this ability. After the data is collected,
new techniques will be applied to the group and finally a second survey will be applied to all
the participants. The survey that will be applied prior to the application of any technological
techniques with the students can be found on *annex # 1*.

A second survey will be conducted after the new techniques including technology are
applied. This second survey is focused on determining if the students were amused by the
new methodology and understanding if anything changed in relationship with the previously
applied one. Students will be required to fill-out both of the surveys in order to collect the
data before and after and define the changes in their perspective towards the English class.
The second survey can be found on *annex # 2*.

As an additional data collection tool, an interview will be performed with the current
teacher in charge of the English classes of the students that will be involved in the action

research proposed. The questions that will be asked to the instructor in this interview are found on *annex # 3*.

The last two data collection tools that will be used are based on proficiency. They will help to measure the abilities of the students before the use of technology is applied to a class. First, a diagnosis of the current abilities they have on a topic that has had no input from any technological devices (*see annex # 4*). The worksheet will be filled out and returned. Then, a final quiz (*see annex # 5*) will be applied after the class with technology involved is due. Finally, the results of both will be measured and compared to determine whether their understanding of a particular topic is affected by this methodology.

3.3 - Site and Participants

The investigation will take place at the Liceo Nocturno de Grecia. It is a public institution that fulfills all the legal and academic requirements to exercise its functions as an educational center, it was found in 1957. The institution is not bilingual, and does not count with many technological devices as well it shares infrastructure with the Liceo Leon Cortes Castro. The population in which the action research was developed corresponds to the students of ninth grade of Liceo Nocturno de Grecia. The size of the sample was 14 students between 16 and 50 years old.

3.4 - Data analysis procedures

The information collected will be tabulated (in the case of closed questions) and graphed for analysis. No complex statistical analysis procedure will be justified. The answers to the open questions of the questionnaire are going to be grouped according to thematic proximity; essentially, the units of analysis will be teachers and students.

3.5 - Summary

This section starts by explaining the work methodology of this project. It is based on an action research design, since the importance of this type of research lies in the research and modification of the educational practice to improve it if possible. The research design chosen for this research is both, quantitative and qualitative. In order to gather information and develop the practical- theoretical the survey technique will be used.

The survey technique allows the gathering of information previous to the research and after the actions are performed. Also, the results will be tabulated to demonstrate the difference between the previous and post state of the group of students evaluated. An additional data collection tool that shall be used is an interview. It will be performed with the current teacher in charge of the English classes.

This research will be done at the Liceo Nocturno de Grecia which is a public institution found in 1957 and located in Grecia, Alajuela, Costa Rica. The population in which the action plan was developed, corresponds to the students of ninth grade. The data analysis procedures will consist in taking the information collected from the surveys, interview, diagnostic, and final test; tabulate it, and graph it to carry out its analysis.

CHAPTER IV

FINDINGS

4.1 - Data Analysis

This chapter will summarize the gathered data from the different sources utilized for the research made. From general to specific, the different graphs and tables established for the analysis of the information obtained will lead the way towards the deepest content of this project. As explained previously in the third chapter, the first data collection tool applied was a survey for the students to share their thoughts of the current English classes being developed at the high school. However, only specific graphics with the key findings will be presented in this section. Here are the findings related to this topic;
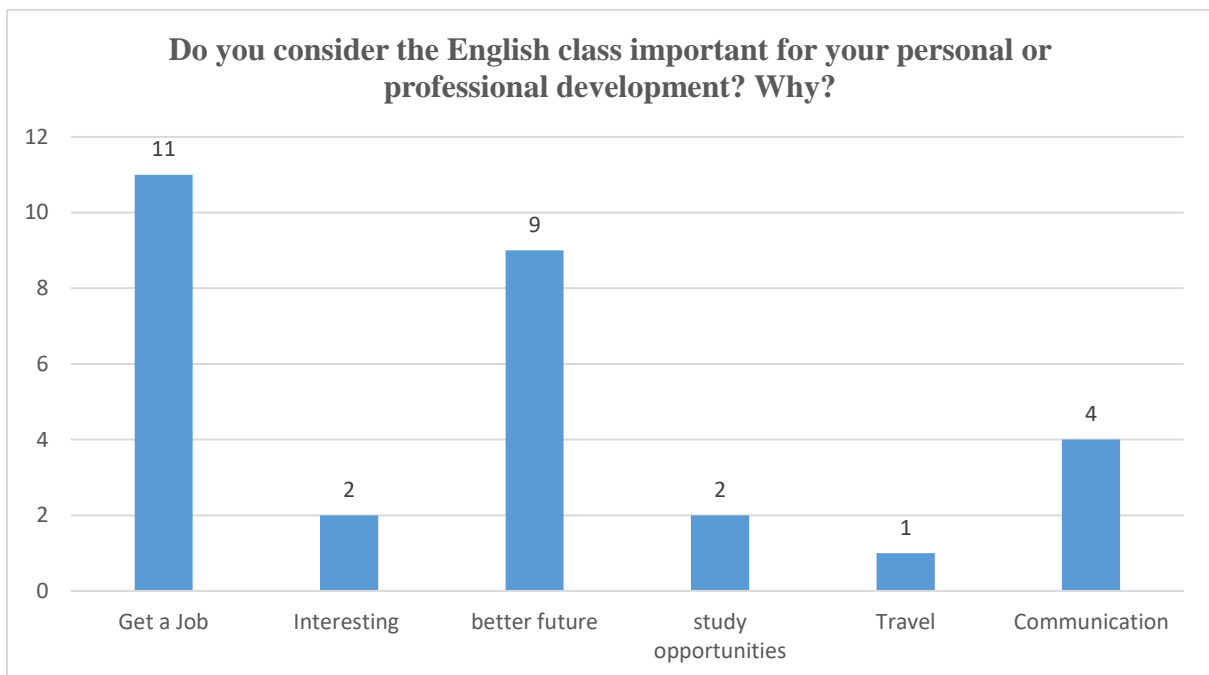
Figure 1. Importance of English for personal or professional development. This figure illustrates students' beliefs about the importance of the English class.

The first question was both closed and open ended. All students marked "Yes" on the field that indicated that English was important for their development. Also, their open replies were gathered in thematic groups to represent their thoughts. In the case of *Figure 1*, 11 students mentioned work opportunities, 9 mentioned the possibility of having a better future, 4 wanted to be able to communicate with others in the language, 2 mentioned possible study

opportunities abroad or their interest in the language itself, and only 1 considered the

possibility of using the language for a future travel.

The following chart (*Figure 2*) corresponds to the third question of the survey made. The

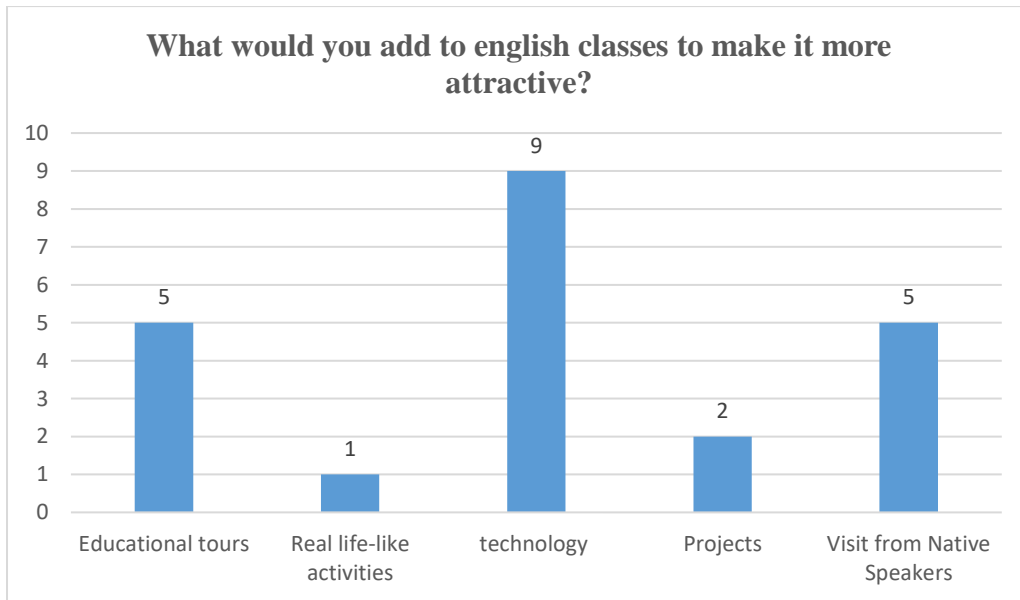replies were classified in the following way;

Figure 2. Adds to English class. This figure illustrates students' beliefs about the ways to improve the English class.

As seen on *Figure 2*, the survey-takers believe that the activities that should be added to

English classes to make them more attractive are as follows; 9 use of technology, 5

educational tours and visits from native speakers, 2 projects, and 1 real life scenarios.

Following through the survey, the next question relates to the available technology that
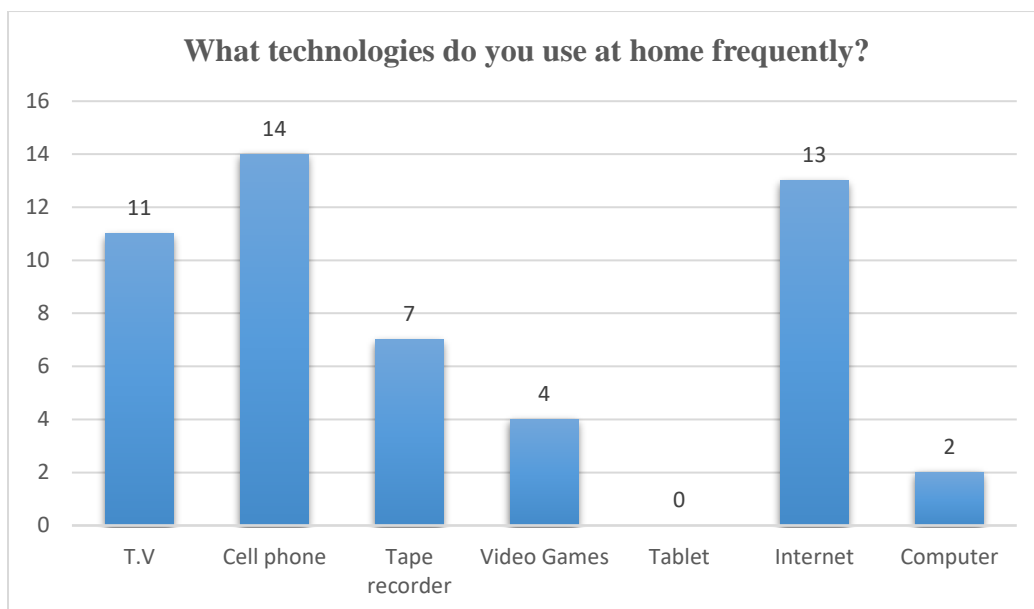
students have at home.

Figure 3. Available technology at home. This figure illustrates students' available technological gadgets at their place.

In *Figure 3*, the students were able to mark several options depending on what the usually have available for use at their place. The answers were; 14 students (all of them) use the cell phone, 13 have internet access, 11 have a T.V, 7 have a tape recorder, 4 play video games, and only 2 have access to a computer.
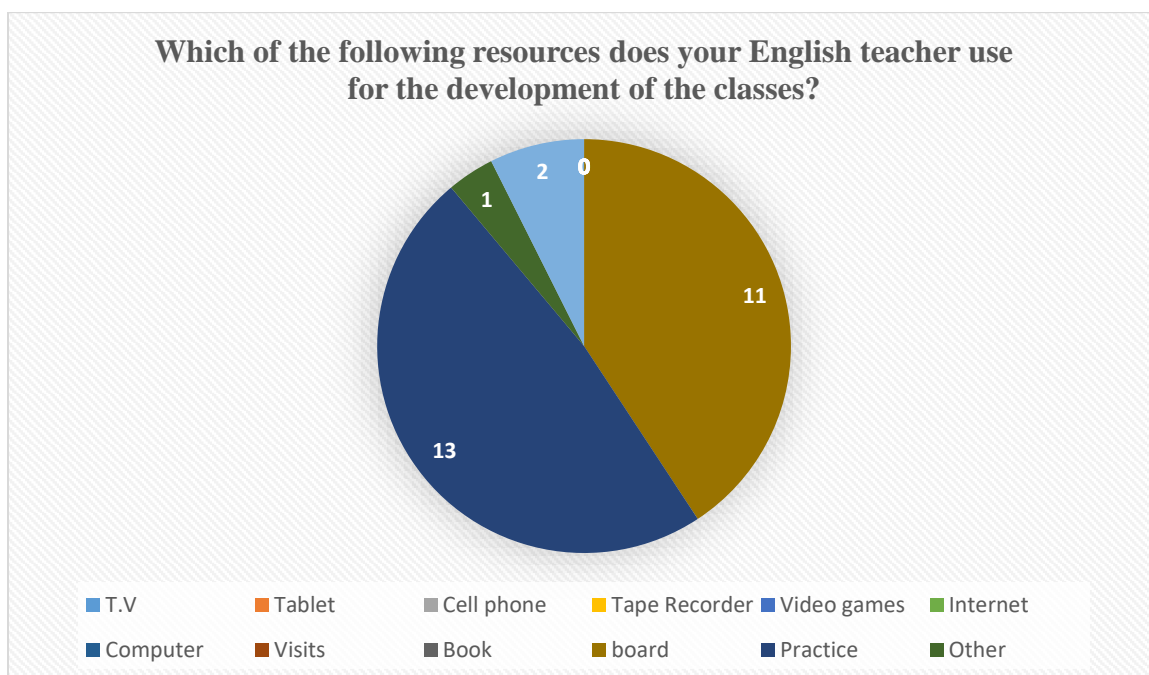

Figure 4. Resources used regularly. This figure illustrates the resources commonly used by the English teacher.

This last chart (*Figure 4*) with data from the survey applied previous to the development of the project shows the reality of the class and how it is usually delivered. In this question 13 students marked that the teacher uses worksheets to practice, whilst 11 selected the board option. Only 2 students remember a time in which a T.V. was involved in the class and 1 chose the use of internet. The final question (*see annex # 1*) was unanimously given a "Yes" when students were asked if they believed technology was important for the development of an EFL class.

The next method used to gather information was a small quiz applied prior to the development of a class with full use of technology. This small test (see annex # 4) is meant to gather the proficiency achieved by the students until that point with the standard methods used by the classroom teacher and mentioned by them in the previous survey. A second small assessment (*see annex # 5*), similar to the first one, was then applied right after the class (*see annex # 6*) focused on use of technology was delivered. Therefore, the following charts will compare the results between the two tests for an easier visualization of the data and contrast of the previous state versus the new state.
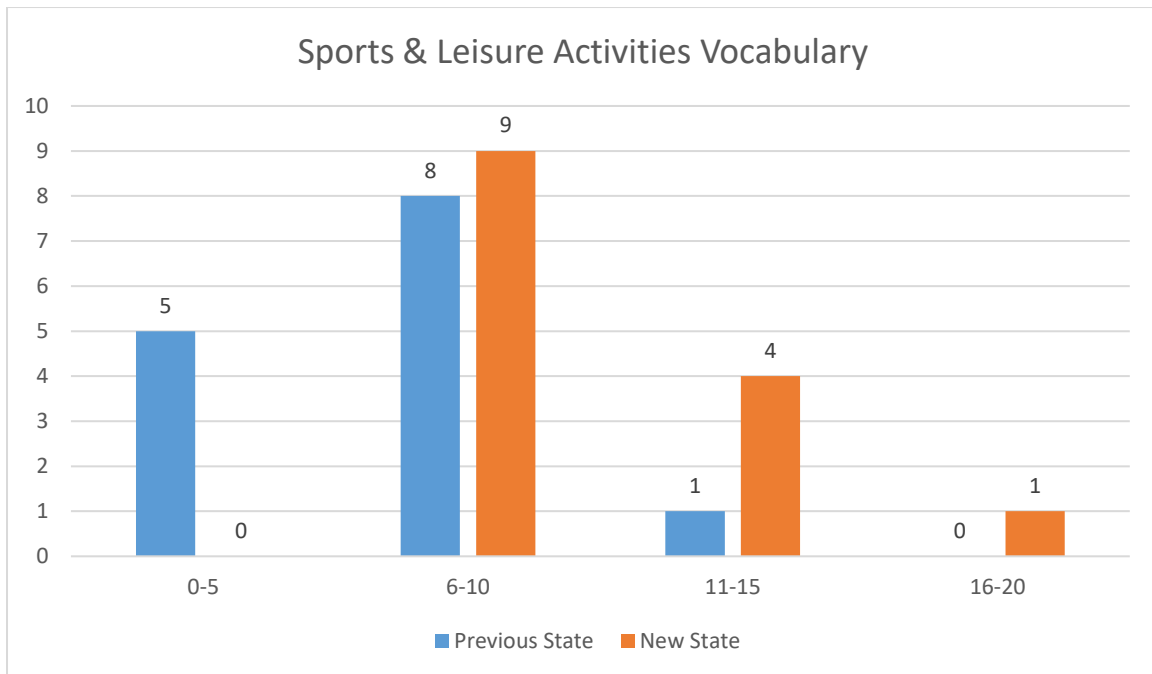
Figure 5. Sports & leisure vocabulary. This figure illustrates students' knowledge prior and post technological class.

This first chart (*Figure 5*) shows the proficiency level of the students in identifying vocabulary related to sports and leisure activities. In the previous state, overall, students were able to mention less terms in comparison with the amount of vocabulary used in the new state achieved after the class was delivered. Previously, 5 students mentioned between 0 and 5, 8 wrote between 6 and 10, and only one was able to get between 11 and 15. No students were able to get more than 15. Post-class, no learners wrote less than 6. Instead, 9 obtained between 6 and 10, 4 got between 11 and 15, and this time 1 student was able to get more than 15 words. The second question showed similar results, these are the details gathered;
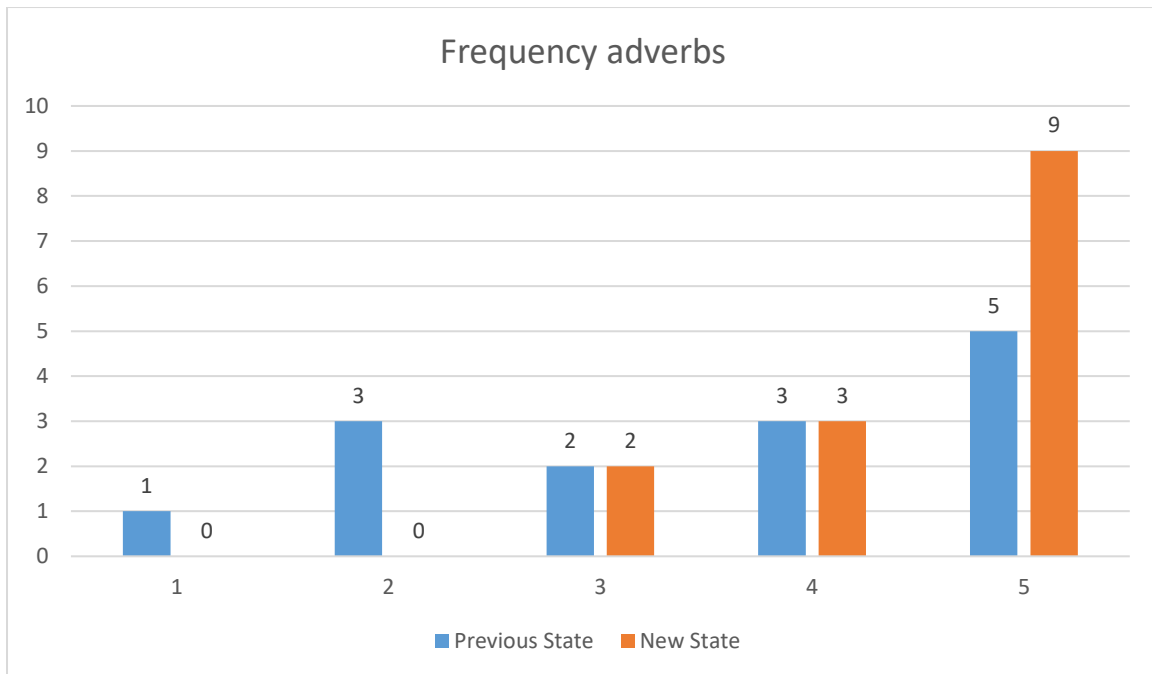
Figure 6. Frequency Adverbs. This figure illustrates students' knowledge prior and post technological class.

This second chart (*Figure 6*) from the diagnosis applied shows how the tendency remains. The same students, after having received the same information, but with a different method show substantially different results. In this case, in the previous state, 1 student was only able to get 1 correct answer, 3 obtained 2, 2 got 3 correct responses, 3 had 4 right ones, and 5 marked all properly. However, in the new state, after the class was delivered, no learners got less than 3 correct answers, 4 students obtained 4, and 9 got them all correct. To finalize the comparison, the last chart related to the diagnosis continues to show the same tendency. Establishing then a trend that can be confirmed throughout the different questions asked to the students in regards to the topics covered during the classes. Here is what the diagnostic shows on both, previous and post state.
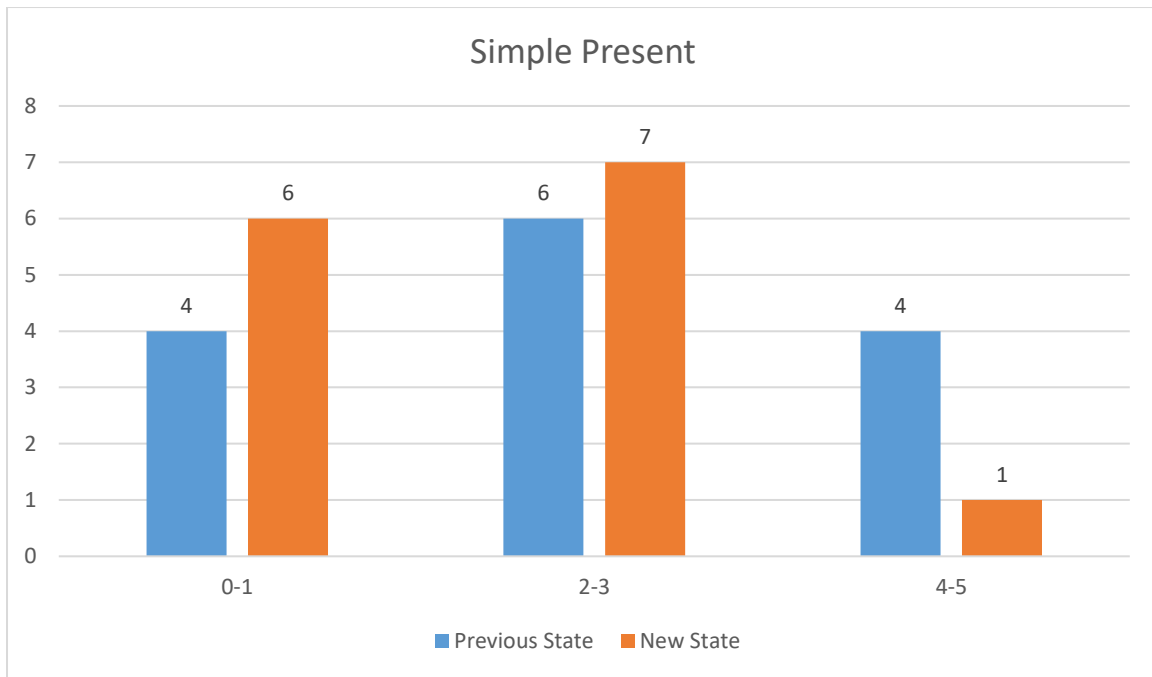
Figure 7. Simple Present. This figure illustrates students' knowledge prior and post technological class.

In this particular case (*Figure 7*), the trend shows the opposite. However, it reflects the fact that the data has to be analyzed backwards due to the fact that the chart reflects the amount of grammar, wording, and vocabulary mistakes made by the students. As seen above, 4 students previous to the class had only 1, 6 had between 2 and 3, and 4 had between 4 and 5. However, after the class, the numbers reverted. This time, 6 students improved and got only 1 mistake, 7 had 2, and only 1 student failed between 4 and 5 times.

To continue presenting the data collected using the tools stipulated in the previous chapter, the next item to review is the survey that followed the class (*see annex # 2*). This was applied to the students to gather their thoughts about the process they went through and shall be analyzed based on thematic compatibility and affinity in the following chapter. All students marked question number 1, 2, 3, and 6 as "Yes" and provided a variety of reasons that will be discussed in chapter four. Question number four was divided among the students. Here, 11 of them believed that PC should have a room in everyday classes, 9 think that

videos and a projector should be part of it, 6 selected music, 5 chose power point presentations and only 3 believe that video games help improve their English skills. In the last question, a vast majority believe that standard methods should be eliminated.

The last part of the data gathering reflects the reality of the classroom teacher. The thoughts of the person who delivers the traditional class. The information was obtained through the use of an interview strategy (*see annex # 3*). This open-ended questions will be analyzed in chapter four to emphasize on specific ideas provided by the teacher. The main ideas provided by Lic. Reyford Paniagua were;

- That technology is a great mechanism to develop a second language, but that it cannot solve all problems on its own.

- That the use of textbook is still the rule in the classroom.

- That the method the teacher uses the most is the repetition of vocabulary and the creation of sentences (by the students).

- That the new syllabus provides a great basis for the development of all four skills, but that it is still limited by the time given to English teachers and use of standard textbooks with lots of grammar activities.

- That technology is indeed crucial for the development of a class in the form of projectors, computers and language labs. But, that due to infrastructure and monetary limitations, these aren't used regularly in the institution.

Having obtained the data, graphed it and tabulated it, the following part of this chapter will focus on analyzing the compiled data and understanding this project.

4.2 – Restatement of questions and discussion of the results

According with the above findings, this project managed to perceive the significance of using technology to develop the English syllabus in Costa Rica's educational system. To start, one of the key findings obtained was that all students agree that English is indeed important for their future lives in one way or another. No survey-takers said that it was not. Also, all of them provided reasons for it to be considered crucial in their lives. The option that was selected the most, job opportunities, provides a clear view of what the teacher's role should be in the classroom. A facilitator of information that can prepare students for them to have enough knowledge of the language to obtain a job in which they can use it.

Another key aspect to look at from that first survey is the fact that students confirmed the theory that this project focuses on. The majority of them selected that adding technology would be good for the class and would improve the overall experience of the classroom. Along with educational tours and visits from foreigners, the use of these technological resources has a positive impact on students and on the learning process based on this answer.

Probably, the most concerning fact found specifically on the students' answers was the growing technological gap created between home and school. All students have access to more than one type of technological device at home. However, the teachers at this institution continue to use the standard resources (worksheets, textbook, blackboard, etc.) and do not regularly use these other available gadgets to improve their classes. Moreover, access to internet is widespread among the students, and considering that only a few have access to a computer, it can be inferred that they access it from their cell phones. This

particular area provides the teacher a possibility of using internet in the class via smartphones and implementing new ways of teaching the language.

Based on the diagnostics made before and after this project was presented to the students, it can be determined that the role of technology is that of an added asset for the class. But, it is not a standard asset. This asset provides a way in which students can easily familiarize with concepts, vocabulary, and grammar structures. However, technology cannot be seen as the one-and-only solution to students' needs as the room teacher mentioned in the interview made. The diagnostics showed that the proficiency level of the people involved in the project improved significantly. The repetition of words, the identification of specific sounds and the visual aids provided by the apps, videos, and music used in the class that was developed, marked a checkpoint in the students' English level related to the topic that was being covered and unleashed a series of improvements in the four skills.

Moreover, the difference was notorious between classes that we attended before as mere spectators of the usual learning process and the day in which our project was presented to students. In latter, they were completely focused on the work being done in the computers, participating, having fun, competing, and understanding in a natural way. They all wanted to be there, and be part of that class unlike the previous classes attended in which only some of the students seemed to pay attention to the teacher and not everyone was working on the assigned tasks. This sentiment was confirmed in the second survey that was applied after the project was developed. As mentioned in the previous part of this chapter, all students considered that they had learned more, had enjoyed it more

and that this should be the standard way of teaching while still keeping some important resources used in the traditional class.

When this research was conceived, its focus was the affectation that these technological devices have on the students' proficiency level (listening). However, it could be proven through observation, recompilation of data, and analysis that not only it affects that part for listening, but it does so for all four skills and it also involves one key aspect of EFL learning; motivation.

Having students that are motivated to come to class and do the assigned tasks in the class helps teachers to achieve the desired level since the learners remain focused at all times. The generating question for this project can then be broadened to reflect the actual findings made by it.

An example of a broadened question would be; how does use of technology positively affect the language learning process in the Costa Rican EFL classroom?
This question, with a much larger focus, can and should be discussed further in upcoming researches. It could provide useful insights to other teachers that want to improve their classes and keep students motivated, focused, and in an overall better shape when it comes to English proficiency level. Nevertheless, it cannot be left aside that this type of classes has implications that were pointed out by the teacher in charge of the class and by the researchers. Those shall be discussed in the following chapter.

4.3 – Summary

    This chapter provides useful insights of the research made. Its most important findings and data gathered. The data showed interesting results. From improvement of English proficiency and motivation through the use of technological gaps, to limitations pointed out by the room teacher in regards to the use of these in everyday classes.

    It also shows how students believe the EFL class should look and be like. Including which resources should be used less or be completely eliminated, and which type of techniques should increase in order for the class to be better and more engaging.

    Finally, this chapter opened the gate to analyze the project deeply and define possible future researches related to technology and the EFL class but it a broader spectrum.

CHAPTER V

DISCUSSION

5.1 – Conclusion

In conclusion, technology has evolved dramatically, especially due to their interconnection capacity through the Internet. This new phase of development has, and will have a greater impact on the organization of the teaching and the learning process. The accommodation of the educational environment to this new potential and the adequate didactic use of it is an unprecedented challenge. Teachers have to understand the advantages and disadvantages that new technologies have on education and reflect on the new model of society that arises from this technology and its possible future consequences.

Undoubtedly, one important aspect found through the present investigation, interesting in its full development, is the emergence of new unknowns that shall provide any investigator a way to continue in the implementation of the results. The research has demonstrated that the application of technological tools in the Costa Rican educational system presents benefits not only in terms of proficiency, but also in students' intrinsic motivation since they are used to experience a technological gap between home and school created by the old-fashioned methods used regularly. Answering to the original question that generated this research.

Therefore, considering the fact that the impact made by technology is indeed positive, it was demonstrated that the educational system cannot be left out of the new changes and that it requires to include these gadgets within its field. For this reason, it is necessary and essential that teachers are updated and trained to integrate these technologies into their classes as a way not only to support their methods, but also to keep students focused in the class and help them achieve meaningful learning. The pedagogical integration of

technologies depends on successful and continuous training, and a personal and professional evolution towards a new way of seeing the educational phenomenon.

5.2 - Implications

This section of the chapter is dedicated to future researchers who would like to understand other circumstances involved in the research that might be of importance when dealing with a similar research. First, here's a list of certain limitations encountered and their corresponding recommendations for the development of any future project;

- In the Costa Rican educational system, the main limitation is infrastructure. Everything is more complicated when it is done in a standard classroom. Every detail has to be planned in advance. For this research, since there was no language lab available, four laptops had to be brought to school along with the adapters, power strips and even a 30 meters long electrical cord that would give access to electricity to all computers since there were not enough power outlets for all devices.

- Undoubtedly, the hardest part of developing a class full of technology is logistics. This research, made by 2 people, demonstrated that it was possible to deliver a great experience with only four computers with the corresponding software in them. However, transporting the machines in and out, setting up the classroom and preparing all the apps that were going to be used, required not only time in advance, but also two highly technically-trained people. Therefore, this provides a valid reason why teachers wouldn't do this on a regular basis. However, as explained in the conclusion part of this chapter, it is also a whole mindset change. Not only for teachers, but also for educational and governmental institutions. This limitation is explained in more detail by the room teacher in his interview revealed on chapter 4.

- Specifically, about listening activities in the Costa Rican educational system, it has to be noted that one of the difficulties faced was the noise outside the classroom while these activities were being performed. Even though the gadgets seemed adequate for use in a controlled environment, when they were put into an uncontrolled one, they proved to perform worse than what they did in the previous.

- Most of the apps used had a way for students to practice listening and reading at the same time. However, since the students were not used to this method, they had to be reminded several times to repeat the word while they were playing. This could easily be controlled in a language lab through a monitoring tool, but unfortunately even when this research tried to use top-of-the-line technology, it still had its limitations in this and other areas that a fully equipped language laboratory would not.

Nevertheless, one of the most important parts of this project was the enthusiasm shown by students who were involved in it. Even though it had its limitations as explained before, the learners only cared about having fun and experiencing a different environment to what they are used to regularly. This was to be expected, however they level of engagement shown did not only meet the expectations but it exceeded them in a completely unexplainable way.

5.3 – Concluding Statement

Technology enabled humans to reach places they could never imagine. We have already reached the moon; imagine the places we could go next. It is time for educators to embrace the change and build a future of maximized human potential.

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ANNEXES

ANNEX # 1 (Survey A)

Instructions: Answer the following questions based solely on your experience as a student at the Grecia Night School. Detail your answers in the best possible way. The data collected here is for the exclusive use of the Universidad Latina de Costa Rica within the framework of the proposed research.

Name: _____ **Group:** _____

1- Do you consider the English class important for your personal or professional development?

Yes		No	

Why? _____

_____

_____

2- Do you consider English classes boring?

Always		Almost Always		Almost Never		Never	

3- What would you add to the English class to make it more attractive?

Tours		More real activities		Visits from native speakers	
Technology		Projects		Time	

4- What technologies do you use at home frequently?

T.V.		Cellphone		Radio		Video games	
Tablet		Internet		Computer		Other_____	

5- Which of the following resources does your English teacher use for the development of the classes?

T.V.		Cellphone		Radio		Video games	
Tablet		Internet		Computer		Visits	
Book		Blackboard		Practices		Other_____	

6- Do you consider the use of technology important in the English class?

Yes		No	

Why? _____

_____

_____

7- What technological resources do you think could be implemented in English classes?

_____

_____

_____

_____

_____

ANNEX # 2 (Survey B)

Instructions: Answer the following questions based solely on your experience as a student at the Grecia Night School. Detail your answers in the best possible way. The data collected here is for the exclusive use of the Universidad Latina de Costa Rica within the framework of the proposed research.

Name: _____ **Group:** _____

1- Do you think you learned more English in this class format?

Yes		No	

Why? _____
_____
_____

2- Do you consider that these types of English classes are interesting?

Yes		No	

Why? _____
_____
_____

3- Do you consider the use of technology important in the English class?

Yes		No	

Why? _____
_____
_____

4- What technological resources would you like to be used more frequently in the English class?

_____
_____
_____
_____

5- What resources do you think you should stop using to improve your level of English?

_____
_____
_____

6- Do you think it was easier for you to perform listening exercises using the methods used?

_____
_____

ANNEX # 3 (Interview A)

Instructions: Answer the following questions based solely on your experience as a teacher at the Grecia Night School. Detail your answers in the best possible way. The data collected here is for the exclusive use of the Universidad Latina de Costa Rica within the framework of the proposed research.

1- What is the opinion of the introduction of technological devices in the teaching of the English language?

_____
_____
_____

2- What are the texts used in your classes and where does your assignment come from?

_____
_____

3- What is the method used mostly in their classes for the improvement of listening skills?

_____
_____
_____

4- What are the advantages of the new M.E.P program in relation to the use of technology and the improvement of listening skills?

_____
_____
_____

5- What technological tools do you think should be used in teaching English in most classes to improve listening skills in students?

_____
_____

ANNEX # 4 (Diagnostic Test A)

Instructions: Answer the following questions based on your current English level. The data collected here is for the exclusive use of the Universidad Latina de Costa Rica within the framework of the proposed research.

Name: _____ **Group:** _____

1- Make a list of all the sports you know. Write down as many as you can!

2- **Underline** the frequency adverbs that you recognize on the sentences.
   1- The incubator turns each egg hourly.
   2- We take a vacation at least once annually.
   3- I usually shop for groceries on Saturday mornings.
   4- He is often late for work.
   5- We seldom see John.

3- Write down three sentences using simple present tense.

_____

_____

_____

ANNEX # 5 (Diagnostic Test B)

Instructions: Answer the following questions based on your current English level after the technological class was delivered. The data collected here is for the exclusive use of the Universidad Latina de Costa Rica within the framework of the proposed research.

Name: _____ **Group:** _____

1- Write down as many Sports as you can. Classify them between individual or team sports.

Individual	Team

2- Write down the correspondent frequency adverb passed on the % of time

1- I _____ go to bed before 11 p.m   100 % of time
2- I _____ have cereal for breakfast.   80 % of time
3- I _____ forget my Friend's birthday.   30 % of time
4- I _____ swim in the sea.   0 % of time
5- I _____ read the newspaper.   50 % of time

3- Write down three sentences using simple present tense.

_____

_____

_____

ANNEX # 6 (Technological Class Timeline)

General Considerations:
- Class delivered on March 23rd, 2018.
- Ss worked in groups of 4 with one computer available for each group.

Type of Activity	Description of Activity	Time Established
Survey A	Ss filled out survey A	5 Minutes
Diagnostic A	Ss completed Diagnostic A	5 Minutes
Warm up	On the PC, a video will be shown about leisure activities and sports including descriptions and vocabulary about them.	5 minutes
Games	Ss played 2 different games on the computers to practive vocabulary, repetition, listening and reading regarding the class' topics. Hangman, Memory.	10 Minutes
Listening Activity	Ss completed a listening activity related to sports by filling out the blanks in a worksheet while listening to a recording on the PCs.	5 minutes
Presentation	Explained adverbs of time using a power point presentation on the PCs that Ss had to follow.	8 Minutes
Practice	Ss practiced the adverbs of time using a power point presentation. The game's name was "pass the paper". Students had to pass a paper around while music was playing. When the music stopped, Ss had to move forward one slide on the presentation. The slide read a percentage. This percentage represented a frequency adverb. The student who had the paper had to write down the correct one based on the percentage shown.	7 Minutes

Games	Ss continued to play the remaining games (Matching and Completing Sentences) on the computers.	10 Minutes
Diagnostic B	Ss completed diagnostic B based on the learnings of the class.	5 minutes
Survey B	Ss filled out Survey B with their impressions about the presented class.	5 minutes