

# THE USE OF JCLIC IN THE ENGLISH TEACHING-LEARNING PROCESS by LYDIA SERRANO GARCÍA

TRABAJO PARA EL TÍTULO DE MÁSTER

Entregado en el Área de Atención Integral
al Estudiante (ARATIES)
de la Universidad de Almería
como requisito parcial conducente
a la obtención del título de
MÁSTER EN ESTUDIOS INGLESES 2013

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#### **ABSTRACT:**

This Master Thesis presents the results of a research project carried out at the Primary School (C.E.I.P) Ferrer Guardia in Almeria with 5<sup>th</sup> grade class A and 5<sup>th</sup> grade class B students in order to verify if there is an impact of JClic at this school. The present paper proposes a mainly investigative objective; which is to demonstrate that the JClic programme can be an educational resource designed to improve the children's abilities and skills so as to develop the Teaching-Learning process in the English classroom.

Starting from a theoretical basis exploration in order to place and define the research aim, the different necessary stages of this research will be described, explaining and justifying at the same time the methodology and data used. In the end, the obtained results and conclusions will be analysed with the objective to establish possible improvement proposals for the JClic programme as an educational resource.

**Keywords**: JClic programme, Children's abilities and skills, Teaching-Learning process.

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#### 1.-INTRODUCTION

At the present day, rapid changes are occurring in the acquisition of knowledge and the ways to access it with the use of the new technologies. These rapid changes or "Revolutions" will never have an end. When I attended school, my teachers used to teach us with the help of a blackboard, they made great efforts to make us understand; sometimes by means of making us repeat or insisting on something important by writing it in red colour on the blackboard. We even had some classes where teachers used to use tapes recorded beforehand in order to teach and a big television to watch a documentary where we were surprised to see how a woman gave birth to a baby. But nowadays with only few words and efforts you can find such things on youtube, not only one but hundreds. Therefore, tapes and videos have become usual if not boring. The new generation is very involved in what is called ICTs (Information Communication Technologies) given that they love the new and the unusual. For these reasons, we have decided to carry out some research in this field, precisely as regards a programme named JClic that many schools use as a means of support in order to improve the students' learning processes.

JClic is a multimedia resource that consists of a set of computer applications that are used to perform different educational activities: puzzles, exercises, texts, etc. The activities are established within projects, so that the activities are part of a set. The predecessor of JClic is called Clic, which is a free multimedia application. It has been used by teachers from various countries as a tool for creating learning activities for their students since 1992. JClic and Clic were created by the Spanish pioneer Francesc Busquets i Burguera who was born in Barcelona in 1959. JClic was developed on the Java platform; it is an open source project and it works on different operating systems. In brief, JClic is a set of free software applications designed to create various types of educational activities. Thus, the Click area is a service of the Department of Education of the Generalitat of Catalonia aiming to support and promote the use of these resources. Furthermore, it provides an open space for cooperation to promote the participation of all teachers who want to share this type of teaching material created by the programme.

Therefore, we have chosen the English language as a subject in order to

investigate this project since English as a second language is highly demanded due to its international importance and use in communication at all levels: social, economic, political, scientific and beyond. Communicating in a foreign language is a basic necessity nowadays. English is also the language of the Internet. Moreover, studies, researches, interactions with international companies and travelling are activities that cannot be carried out without the knowledge of the English language. The possibility to communicate in a foreign language represents a need in present-day society due to the following reasons:

- Intercultural exchanges among different countries.
- The communication of news and knowledge.
- A better understanding and mastery of one's own language.
- Understanding and respecting of other ways of thinking and acting.
- Providing a richer vision of reality.

As it is known, in today's classrooms there are the first generations that have grown up with the remote control and mouse in their hands. Although we cannot yet predict cognitive changes that will imply passing from a writing-based culture to a media culture, they begin to appreciate some differences between our generation and the next, between us and our students and children. We should take these into account in the design of teaching-learning situations.

The Ministry of Education, Culture and Sport (MECD) is carrying out a process of curriculum reform, prioritizing among its elements the technological innovation in two dimensions: Instrumental and pedagogical.

The purpose of this research is to contribute to the quality of the Teaching-Learning process through the incorporation of educational software under an educational dimension and, apart from that, to address a specific educational need of the national curriculum. This need includes the development of skills in the Spanish Educational System: listening, speaking, talking, reading and writing.

The research we have conducted is based on a study of the use of the JClic programme in the Teaching-Learning process in the English classroom. This research was carried out for two weeks. We choose two classes of the same level, in this case the 5<sup>th</sup> grade level of a primary school. The process consists of explaining a

new English unit in the same way to both classrooms. However, whereas in one class the students follow the activity in a book or worksheet in order to do the activities, the other classroom does the activities with the JClic programme. Thus, in order to check if our hypotheses and objectives could be achieved, we have verified them through a test and questionnaire.

Aside from that, Fullan and Stiegelbauer (1991) explain that the incorporation of new materials, behaviors, teaching practices, beliefs and conceptions, etc. are changes that are related to the processes of innovation in improving the Teaching-Learning processes. For these authors, the use of new materials, new technologies or new curricular approaches is just the tip of the iceberg: the difficulties in terms of development are related to teachers; they need to adopt new skills, behaviors and practices associated with changes of the acquisition of new beliefs and concepts.

#### 2.-AIMS

The objectives that we want to achieve with this research are the following ones:

#### ➤ Main Objective

1.- To Identify if the use of the JClic programme with meaningful activities and effective teaching practices improves the process of Teaching-Learning in the English classroom.

## **➤** Specific Objectives

- 1.- To improve children's skills (listening, speaking, talking, writing and reading) through the use of an educational software called JClic programme.
- 2.- To create a pleasant and motivated working environment for children with the intention of facilitating the students' English learning process.

#### 3.-HYPOTHESES

Students are not often focused in their English class because their level is low

and some teachers speak in English all the time. They are often bored from activities because they are difficult or not attractive to them. Furthermore, they are not motivated to pay attention to the teacher. Therefore, in order to overcome these problems my hypotheses are the following:

- a) The use of the JClic programme during teaching will arouse curiosity and motivation in students to learn and thus the tasks of teachers will become easier.
- b) The use of the JClic programme improves the students' concentration and this ways it will create a good atmosphere in the classroom.

# 4.-THEORETICAL FRAMEWORK

The use of free software applications is being imposed as compared to those developed by companies in the sector, which are more attractive but also more expensive. A good alternative in the teaching process at primary schools may be the use of new and free technologies. Among these new technologies JCLIC deserves particular attention since it is an application developed by and with teachers and whose interest in the educational world has been important in the last decade. These new technologies such as JClic are within reach for the majority of the population and they can be an extra motivation for the children. Ignoring the ongoing debate within the education community about whether the integration of ICT in the teaching process is positive or not, we would like to focus our work on the validity of applying JCLIC as a tool to facilitate learning in the area of English language teaching. Previously, we will make a tour of theories or issues that are related to JClic and Education field that we have thought convenient to analyze.

#### 4.1.- JClic

Busquets (1995:1), the inventor of JClic, said: "JClic is an environment for the creation, attainment and assessment of the multimedia educational activities, developed in Java platform".

In addition, he claims that the programme allows you to create and run different types of activities such as for instance associations, puzzles, exploration activities, written answer activities, identification activities, word search and crossword puzzles. The contents of all these activities can be textual or graphical and can also include sounds, music files, animations or digital video sequences.

According to the ZonaClic platform, the JClic project is an evolution of Clic 3.0, a tool to create multimedia educational applications. Clic 3.0 was the original programme. It was created for Windows and it is available now in seven different languages. Its development began in 1992 and ever since it has served to create thousands of activities aimed at different areas and levels of education. The Clic programme won the first prize in the call for the Computer Education Programs Award, issued by the Spanish Ministry of Education and Science in 1992. It was published and distributed to participating centers in the Atenea project, and it is available nowadays in all the Centers of Teachers (CEPS).

Garrido (2009) states that the goals of JClic can be enumerated in the following way:

- Enable its use in various platforms and operating systems, such as Windows, Linux, Mac OS X and Solaris.
- Use a standard format and open it for storage of the data, in order to make them transparent for other applications and facilitate their integration into databases of resources.
- Enable the program to expand from the cooperative work between different programming teams.
- Compatibility with existing Clic 3.0 applications.
- Broaden the scope of cooperation and exchange of materials among schools and educators from different countries and cultures, facilitating the translation and adaptation of both the programme and the created activities.
- Enable the use of multimedia educational applications online, directly from the Internet.

By means of addressing the advantages and disadvantages when using JClic; she says that one of the advantages is that the operation is simple since the user can slide the mouse around the screen where symbols, maps, icons, pictures and photographs that bear some connection between them appear. In addition, the user can click on the object that looks interesting or appropriate depending on the task that has been proposed, which triggers a response from the programme that guides the user into the next action. Another great advantage is the self-correction of the tasks with which the child is automatically acquiring personal autonomy.

Notwithstanding that, a few limits and disadvantages can be listed:

- It requires individual computer use in the classrooms, which in most centers can only be carried out in the networked classroom or ICT centers.
- The assemblies and tasks presented to the children should be selected with strict criteria to avoid the effects of boredom or even frustration, which is even more dangerous.
- The students quickly master imposed tasks, so new assemblies have to be presented. These assemblies are not always easy to find or create.

López (1999) shows that the activities that are regularly given to the students, which should perform on their notebook or on a worksheet, are based on relating, identifying, distinguishing, memorizing, observing, sorting, classifying, completing and exploring concepts, words or ideas. This is what forms an important part of the contents of the curriculum.

To conclude, JClic can be particularly useful at Primary School and it can make a good contribution to the curriculum. This way, it can offer support for reading-writing activities, word-image, text-image, sound-spelling association and visual and auditory memory training, which is essential in this learning process.

#### 4.2.- Education in the ICT Era

Castells (1986: 13) claims that a "new spectrum travels the world: new technologies. To his ambivalent spell fears they attract and lighted the hopes of our

societies in crisis. It is discussed their specific content and its precise effects are unknown to a large extent, but hardly anyone puts in doubt its historical importance and the qualitative change in the way we produce, manage, consume and die".

According to Cabero (1996), without a doubt, these so-called new technologies create new environments, both human and artificial ones, and establish new forms of interaction. The role that new technologies play in the classic and traditional ways of communication is quite significant, and from a general perspective, we develop in three major directions:

- Change in the production and distribution of media.
- Creating new possibilities of expression.
- Develop new extensions of information, approaching the concept formulated by Mcluhan's "global village".

According to Martinez (1994: 47), a definition of new technologies can be as follows:

"... new technologies, either do not mean anything, means everything, or means the last device that appears on the market." Particularly, I would stay with the first thing, that doesn't mean anything, but it must be used without knowing what they mean with this."

However, the definitions of new technologies that have been offered are different. Therefore, Bartolomé (2002), from an open perspective, points out that the term refers to the latest technological developments and their applications. Gilbert and others (1992: 1) refer to "the set of tools, stands and channels for the treatment and access to information". In the same way, in the dictionary of educational technology Santillana (1991) defines it as "the latest developments of the information technology that today is characterized by its constant innovation". Castells et al. (1986: 14) indicate "a series of applications of scientific discovery, whose core consists of one ever-increasing data processing capacity". And finally, we would like to quote from the publication of the magazine Culture and New Technologies of the Processes Exhibition: "... new media and channels to give shape, record, store and disseminate informational content". (Ministry of Culture, 1986: 12)

These definitions provide us some significant hints giving some clues on the ground where we are operating. We must bear in mind the general term; it revolves around information and new discoveries that it originates from. Having said that, we are going to focus on the field of ICT since it is a narrower terrain and location of the JClic application.

The Ministry of Education, Culture and Sport (2009), through the Institute of Technology Education proposed the "program school 2.0" which was the latest project of integration of the information technology and communication (ICT) in schools. The objective was to implement digital 21<sup>st</sup> century classrooms; classrooms equipped with technological infrastructure and connectivity devices. The integration of ICT is a direct result from the creation of many applications that can help teachers in their daily work, such as JClic.

The School 2.0 programme was based on the following areas of intervention: digital classrooms; ensuring connectivity to the Internet; promoting the training of teachers (both technological, methodological as well as social aspects of the integration of these resources in their daily teaching practice); generating and facilitating access to digital educational materials tailored to the curricular designs; engaging students and families in the acquisition, custody and use of these resources.

To this end, the Ministry of Education, Culture and Sport, through the INTEF (National Institute of Educational Technology and Teacher Training), expanded the offer of their courses in networking on ICT instruments and methodological aspects, experimentation and innovation.

Yet, talking about education in the age of ICT does not simply mean to introduce computers in classrooms or to replace the chalk slates by digital whiteboards. Its objective is to create new learning environments in which students can build their own understanding and develop their own skills.

Prada (2009: 180) affirms that "the concept of learning, characterized by a passive attitude of students in which it received the information given by the teacher and was assimilated through repetition and practice of tasks has been relegated to

the past". Now students have a more active and autonomous position in their learning process since you have multiple and varied sources of information.

Many changes have occurred with the arrival of new technologies in the field of education. Those produced in the training modalities are especially interesting.

First of all, the training has been traditionally classified in three major forms of:

- ➤ The face-to-face mode: characterized by processes of formation in which teacher and student share physical and temporal space.
- The blended mode: this mode is a mixture of the modality and distance, as its name suggests.
- Distance mode: teaching-learning processes do not coincide in time or in space. Here the teacher becomes a guardian of the student, directing and guiding its formation process.

However, nowadays we can talk about other modalities that are included in the ICT development, for example:

- Extranet campus with the support of ICTs: teacher and student share physical and temporal space but Internet and computer equipment are also given an important role.
- ➤ Blended-learning: this mode shares features with the blended one, but content and communication tools are integrated into virtual educational environments, where the student is everything you need for the learning process.
- ➤ E-learning: this is a form of distance learning which integrates all the necessary tools for virtual learning. It is a completely autonomous means that the student is the center of; it is made up of independent and flexible training with the students having to manage their own learning, usually with the help of external tutors.

With the use of the ICT, teachers can find an exceptional aid in the teaching-learning process that releases them from activities in which their presence is replaceable. As Ausubel (1978) says, the Professor is a person that is too valuable to

spend his time in routine conferences on areas of knowledge that are relatively stable and fixed.

There are many reports and a lot of research on the integration of ICT in education has been carried out Area (2005); Balanskat (2006); Cabero (2001); Cebrian, Ruiz and Sánchez (2008: 19); Fandos (2007: 20); Marchesi and Martin (2003); Perez and Sola (2006). They highlight the growing efforts of the administrations for the endowment and technological adaptation of the educational centres.

#### 4.3.-Basic Competences

We have to make reference to the concept of core competences, which currently is defined as the set of cognitive, procedural skills and attitudes which can and must be achieved throughout compulsory education by the majority of students in this section. They are essential to guarantee the personal and social development and adaptation to the needs of the vital context, as well as for the effective exercise of the rights and duties as citizens.

Navarro (2009) states that the Educational System is responsible for the education of children, establishing a division in the stage of compulsory education (infant, primary and secondary) through which it indicates a sequence of learning. Education is a medium used by the societies to transmit their culture and knowledge. Being also an instrument of evolution and development of the education. Modifications that the educational system undergoes are the result of social changes and new demands that arise for the formation of the new generations, where changes in families, social values, in the labor market, in relation to other cultures, on access to information, etc. are features of the society of the 21<sup>st</sup> century, with marked differences from earlier times.

According to Arroyo (2008), the incorporation of key competences in the Curriculum allows you to put the emphasis on those types of learning that are considered essential, from an inclusive approach and the application of an acquired knowledge-oriented approach. These are the powers which a young should have developed at the end of compulsory education in order to be able to achieve their

personal fulfillment, exercising active citizenship and being incorporated into adulthood in a satisfactory manner in order to be able to develop a lifelong learning process.

According to the Decree 230, dated August 8<sup>th</sup> 2007, specified on sheet No. 156 (10-11) "article 6" and in accordance with annex I to the Royal Decree 1513, of December 7<sup>th</sup> 2006, basic competences mean:

"Basic competences of an elementary education set of skills, knowledge and attitudes appropriate to the context in which all the students enrolled in this educational stage should reach for their accomplishment and personal development, as well as for active citizenship and social integration".

Secondly, basic competences are developed in the following way:

- a) **LUINGUISTIC COMMUNICATION COMPETENCE**, concerning the use of language as an instrument of oral and written communication, both in Spanish and in foreign languages.
- b) **MATHEMATICAL COMPETENCE**, understood as the ability to use numbers and basic operations, the symbols and forms of expression of mathematical reasoning to produce and interpret information and resolve problems related to everyday life and the world of work.
- c) **COMPETENCE IN THE KNOWLEDGE AND INTERACTION WITH THE PHISICAL WORLD**, that will pick up the ability for the understanding of the events, the prediction of the consequences and activity on the state of human health and environmental sustainability.
- d) **ICT COMPETENCE**, understood as the ability to search, obtain, process, and communicate information and transform it into knowledge, including the use of information and communication technologies as an essential element to learn and communicate.
- e) **SOCIAL AND CITICENSHIP COMPETENCE**, understood as one that allows you to live in society, to understand the social reality of the world in which we live and exercise democratic citizenship.
- f) **CULTURAL AND ARTISTIC COMPETENCE**. It appreciates, understands and assesses critically different cultural and artistic manifestations, uses them as a source of enjoyment and personal enrichment and considers them as part of the cultural heritage of people.
- g) COMPETENCE AND ATTITUDES TO CONTINUE LEARNING IN AN AUTONOMOUS WAY throughout life.
- h) **AUTONOMY AND PERSONAL INICIATIVE COMPETENCE** which includes the possibility to choose own criteria and critical spirit and carry out the initiatives required to develop the chosen option

and take responsibility for it. It includes the entrepreneurial capacity to devise, plan, develop and evaluate a project.<sup>1</sup>

Competences are interdependent and may be related to activity in different areas. Basic competences must be acquired from all areas. The acquisition of competences is achieved with the work of all areas and the other way round, i.e. developing each of the areas is achieved by all the basic competences.

In summary, the use of JClic strengthens basic competences in general although it puts more emphasis on: Autonomy and personal initiative, Learning to learn and Social competences but above all the ICT competence.

# 4.4.- Linguistics Skills in Education

In this chapter we are going to offer a little summary about linguistic skills with the aim to define each one and in order to say what the importance of these abilities in Education is. The use of the foreign language effectively requires having a number of different abilities. Linguists have identified four major abilities, which they call linguistic skills. These four skills are:

- 1) Listening
- 2) Speaking
- 3) Reading
- 4) Writing

The Council of Europe (2001) has defined five skills instead of four: listening, speaking, talking, reading and writing. There are two main ways to classify these skills:

- a. In relation to the medium
- b. In relation to the activity of the speaker.

Speaking, talking and listening relate to language expressed through the aural/oral medium whereas reading and writing relate to language expressed through the visual medium. If we make use of an activity-based classification, speaking and

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<sup>&</sup>lt;sup>1</sup> Resource: Real Decreto 1513/2006

writing are said to be active or productive skills while listening and reading are said to be passive, or receptive skills (though we will see how listening is not merely passive). These conventional notions can be expressed in a diagram as follows:

	AURAL/SPEECH	VISUAL/WRITTEN
RECEPTIVE	Listening	Reading
PRODUCTIVE	Speaking/talking	Writing

Table 1.- Linguistic Skills.

First of all, we are going to explain receptive skills:

In a first contact with a foreign language the main skills to work on are the receptive skills, these are oral comprehension and written production.

According to Alburqueque (1990), receptive skills are commonly divided into three categories:

- > Pre-reading/listening; this stage has the purpose of generating the interest in order to go on with the activity and to activate previous knowledge. They introduce a general context.
- > While-reading/listening; it will be the proper reading where all or some major reading skills are to be used. Also, they help us to get information.
- Post-reading/listening; the final stage has the aim of putting some information provided by the text into the wider context of the students' knowledge.

#### <u>Listening Skills (Oral Comprehension)</u>

Harmer (2007) explains that the most important listening skills are the following ones:

- -Predicting.
- -Extracting specific information.
- -Getting the general picture.
- -Inferring opinion and attitude.

- -Deducing meaning from context.
- -Recognizing discourse patterns and markers.

We have to prepare our students in a way that makes them anticipate what may be said next in a spoken message. Good listeners comprehend a spoken message by matching it with their previous expectations.

# Reading Skills (Written Comprehension)

Regarding the language we must say that it will be meaningful (authentic or elaborate) to take into account the student's level.

Teachers will use strategies that help students to develop the different subskills, which are, according to Harmer (2007):

- Skimming is the strategy of getting the general idea.
- Scanning is to look for specific information.

Now, we will briefly describe the productive skills:

#### Speaking Skills (Oral Expression)

Speaking is an interactive process of constructing meaning that involves producing *and* receiving and processing information (Brown, 1994; Burns & Joyce, 1997).

The great speaker synthesizes this array of skills and knowledge to succeed in a given speech act. However good our students may be at listening and understanding, it does not necessarily mean that they will speak well. A discriminating ear does not always produce a fluent tongue. There has to be training in the productive skill of speech as well.

The speech produced by the student should be controlled at first (imitation). Then, as progress is made, there should be less guidance culminating in situations where our pupils are free to produce utterances appropriate to the situation.

# Writing Skills (Written Expression)

It is a very complex skill, the most difficult one even in the mother tongue

because it does not arouse spontaneously.

A summary of the different written sub-skills has been provided by Matthews (1991):

- Graphical or visual skills.
- Stylistic or expressive skills.
- Organizational skills.
- · Grammatical skills.
- Rhetorical skills.

In the early stages of learning English, the students will generally write very little. They are most likely to be engaged in some form of guided copying to produce words or sentences.

According to Brewster (1992), initial guided writing activities may be oriented at both word-and sentence-level.

AT WORD-LEVEL	AT SENTENCE-LEVEL
Classifying words under headings.	Writing caption for pictures.
Working out anagrams.	Writing speech bubbles for cartoons.
Making lists.	Writing sentences based on surveys or questionnaires.
Matching labels to pictures or diagrams.	Matching have of sentences and copying
Making personal dictionaries.	Sequencing sentences and copying.
Completing crosswords.	Correcting mistakes in written sentences

Table 2.- Written Skill.

To finish this chapter, we are going to explain the reasons for integrating the skills in primary school.

Read (1991) finds two main reasons for devising activity sequences with

#### integrated skills:

- -To practice and extend the pupils' use of a particular language item.
- -To develop the pupils' ability in two or more skills within a constant context.
- -Though many combinations of the four skills are theoretically possible some facts must be highlighted:
- -Listening will normally precede speaking and reading precedes writing.
- -Writing is normally final in the sequence.

# 4.5.- Teacher's Roles in the 21st Century

As well as methods and resources, teaching practices and goals change in the society we life in so that the roles of the teacher and the student changes too. It must be said that many teachers are reluctant to change practices for fear, unfounded thoughts and prejudices that can make us believe that new technologies could displace or supplant the role of teachers.

Fernández (2003) represents a picture providing a comparison between the Traditional model and the Technology model:

TRADITIONAL OR CLASSIC MODEL	TECHNOLOGY MODEL
1The teacher as instructor.	1The teacher as mediator.
2It puts the emphasis on teaching.	2 Turns emphasis on learning.
3 Isolated teacher.	3The teacher works with the teaching staff.
4 is usually given the resources without designing them.	4Designs and manages its own resources.
5Didactics based on exposure and with unidirectional character.	5Teaching based on research with bi- directional character.
6Only the truth and the wisdom provide learning.	6Use the error as a source of learning.
7Restrict the autonomy of the student.	7It promotes the autonomy of the student.
8The use of new technologies is aside from programming.	8The use of new technology is integrated into the curriculum. Professor has basic skills in ICT

Table 3.- Traditional model VS Technological model.

Traditionally, the roles were clearly identified between teachers and students. They are the result of a hierarchical situation:

While teachers have played an active role as speakers, students have adopted a passive role as listeners (Sinclair, 1982: 27).

Thanks to the communicative approach of the second language, the teaching and learning process has resulted in a new role adopted by the students. Hence, the acquisition of a linguistic and communicative competence development can take place. Having said that, the role of the teacher changes as we will see below.

According to the Constructivist learning perspective proposed in our Educational System, the teacher is not a mere presenter of information and the student a recipient. Now there are multiples roles. According to Harmer (2007) some multiple teachers' roles are:

- ➤ Controller. He is a facilitator who controls everything, even the language to use in class. It is adequate during the reproduction stage, but inappropriate during the production stage.
- Organizer. The success of many activities depends on a good organization.
- ➤ Promoter. He encourages students to participate. This role has to be performed with discretion and only when it is necessary.
- ➤ Participant. The teacher can participate equally in the activity. The atmosphere in the classroom will be better and it gives students the chance to practice the English language with a person who speaks English better than they do.
- ➤ Evaluator. Evaluation about T-L process, that is to say, not only about the learning process bus also about the teaching process. Quantitative evaluation has been replaced by formative evaluation.
- ➤ Investigator. He observes what works well in class and what does not. He is a teacher who wants to get better and better in his teaching practice.
- ➤ Resource. The teacher participates giving linguistic advice/aid to students. It is not very adequate in communicative activities because it prevents them from developing communicative strategies.
- ➤ Tutor. He is a trainer and a guide to pupils when they are working in the classroom. It is a wider role that incorporates some elements of other roles.

Ultimately, the rule of the teacher is not anymore to instruct in the traditional

way; the world is changing fast and children are able to cope easily with the new technologies, unlike some teachers who are not up-to-date with them. Therefore, efforts should be made to follow Hamer's (2007) recommendations and affirmations in order to absorb the dynamic energy that students have concerning these technologies. Now, that it has been proved that JClic is very useful in the teaching – learning process, we have to ask the question why our honorable teachers do not update their technological knowledge.

#### 5.-METHODOLOGY

## 5.1.- Type of study

Our research is a quasi-experimental research which is a type of quantitative methodology.

In the words of Aliaga and Gunderson (2002), a quantitative research is:

"Explaining phenomenal by collecting numerical data that are analyzed using mathematically based methods (in particular statistics)."

We have to say that a quasi-experiment is an empirical study used to estimate the causal impact of an intervention on its target population. Quasi-experimental research designs share many similarities with the traditional experimental design.

According to Campbell and Stanley (1966), the quasi-experimental investigation originates from the educational field, where the investigation of certain phenomena could not be carried out by means of following experimental methods.

We have decided to choose this analysis method since we intended to analyse the student's performances after the use of the JClic programme.

#### 5.2.-Participants and Context

For the purposes of the quasi-experimental study, two 5th grade primary school English classes of a public school based in La Cañada San Urbano (Almería) participated. The age range of the classes varied between ten and eleven. A total of

47 % and 39 % were feminine and a total of 53 % and 61 % were masculine students in classes 5°A and 5°B, respectively.

SOURCES OF INFORMATION (PARTICIPANTS)	NUMBER
TEACHER	1
STUDENTS	39 (5°A-19 & 5°B-20)
STUDENTS AVAILABLE IN THE TESTS AND QUESTIONNAIRES	37 (5°A-19 & 5°B-18)

Table 4.- Participants in the Study.

For the investigation, class 5<sup>th</sup> A took part in the experiment with the JClic programme whereas class 5<sup>th</sup> B followed the more traditional guidelines using activity books. During the investigation, class 5<sup>th</sup> B did not use any JClic programme whatsoever whereas class 5<sup>th</sup> A used the programme during the whole learning process. With the aim to obtain the most reliable results possible, two classes where the students show a balanced level in terms of their academic achievements had been looked for. Apart from that, according to the teacher there were no particularly severe problems. Yet, what was identifiable was the lack of attention, the lack of motivation and a lack of colleagueship typical for children of this age. Furthermore, the level of English of the students was not very high so that we had to give them the questionnaires in Spanish.

Experimental Group	Control Group
5th level class A	5th level class B

Table 5.- Experimental and Control groups.

#### 5.3. - Procedure

For the realization of this investigation two English classes at the same level were chosen (5<sup>th</sup> A and 5<sup>th</sup> B). The two classes were taught by the same teacher and they were given the same amount of hours during the two weeks of the investigation.

The books' topic was called "Cauliflower Ice Cream", taken from the book TWISTER 5.

Class 5<sup>th</sup> A was explained that we were carrying out some research and that the usual way of giving the classes would change using a new programme called JClic. Given that the students did not know the programme we gave them some explanations regarding what it consists of. After that, as the week was passing by, we kept explaining to them any activity they had to carry out so that we could resolve any doubts before the beginning of every activity.

Nonetheless, we did not tell anything to class 5<sup>th</sup> B until the last day when we gave them the test and the questionnaire in order to not lose time and to not confuse them. The only difference between the two courses is that in class 5<sup>th</sup> A we made use of the programme JClic and the students consequently carried out the activities at the computer whereas the students of class 5<sup>th</sup> B carried on with their usual routine using books, activity books, booklets and dictionaries.

Due to the lack of computers in class, the students of class 5<sup>th</sup> A had to go to the informatics lecture room where they could use the digital blackboard and any type of technical resources.

Finishing the investigation period which lasted for two weeks, the classes were handed out the same tests and questionnaires, which were filled in within an hour.

#### 5.4.- Instruments

The quantitative instruments we used in the research to collect the data, and in order to know if my objectives and hypotheses are achieved, were the following ones:

## Questionnaire

Questionnaires<sup>2</sup> were specific for each group because one class did not use JClic whereas the other one did. On the one hand we had the questionnaire for 5<sup>th</sup> A that consisted of 8 items and 4 questions. On the other hand we had the questionnaire for 5<sup>th</sup> B consisting of 5 items and 3 questions. Here, students had to evaluate JClic, the use given to new technologies and the knowledge that these

<sup>&</sup>lt;sup>2</sup> You can see an example in the appendix 2.

children have about it. The items were valued on a scale from 1 to 10, YES or NO, or options to choose, while the questions were open without any options. We have to mention here that the questionnaires were in Spanish because the students' English level was too low to understand everything in English.

Following the MacMillan Dictionary, a questionnaire is "a set of questions that a lot of people are asked as a way of getting information about what people think or do generally".

Another definition given by Collins Dictionary defines it is as "a set of questions on a form, submitted to a number of people in order to collect statistical information".

# ➤ Test

The test<sup>3</sup> was the same one for classes A and B in order to compare and get the objectives and assumptions that we set at the beginning. The format of the test was one that they normally follow in their assessments without making any changes. We have to add here that the test was completely in English according to their levels and characteristics.

According to Seliger and Shohamy (2001: 176) a test can be seen as a "procedure used to collect data on subjects' ability or knowledge of certain disciplines". Test results are evidence for how the learners' performance in a specific skill is.

The tests were used during the 6<sup>th</sup> session and were divided into 4 parts related to the following skills:

Activity 1: Listen and write.

Activity 2: Find and write.

Activity 3: Read, look and complete.

Activity 4: Unscramble, write and match.

<sup>&</sup>lt;sup>3</sup> You can see an example in the appendix 1.

#### 6.-RESULTS

#### 6.1.-Data Analysis and Discussion

This chapter aims to present the data collected and the procedure followed while analyzing it, always bearing in mind the following question: Does the use of JClic improve the Teaching – Learning process?

At the end of the experiment, 37 questionnaires and tests (18 from 5<sup>th</sup> B and 19 from 5<sup>th</sup> A) were obtained out of a total of 39 students who were in the category of analysis, always taking into account that 5<sup>th</sup> A is an experimental group and 5<sup>th</sup> B a control group.

The results gathered from the 5<sup>th</sup> grade of Primary Education on the study and analysis of the use of JClic in English class will be structured according to the instruments that we used. Firstly, we shall have a look at the analysis of tests and after that we will consider the questionnaires. In addition, the questionnaires are divided into common and specific questions.

Then, we will have a look at the graphs of the tests performed by the students, by marks of minor to major, the grade point average of the test and then the marks of activities and the marks mean of activities. This way, we will draw the best possible conclusions.

And finally we are going to discuss<sup>4</sup> in this chapter every graphic or table in order to achieve good inferences.

<sup>&</sup>lt;sup>4</sup> We are going to divide the discussion into three parts; Discussion of Tests, Discussion of Common Questions (from classes A and B) and Discussion of Specific Questions (Class A).

#### **TEST'S GRAPHICS:**

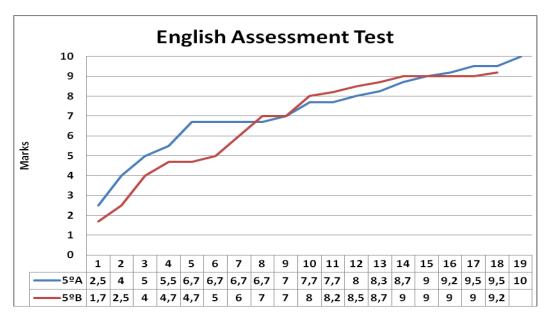


Figure 1.- English Assessment Test.

This chart represents the grades of each student of the two classes. We can see that the lowest grade belongs to 5<sup>th</sup> B with 1.7 score and the highest grade belongs to class A with a 10 score. Apart from that, it can be seen that in class B there are 5 students with a score below "5" (failed) whereas from class A only 2 students have performed below this score.

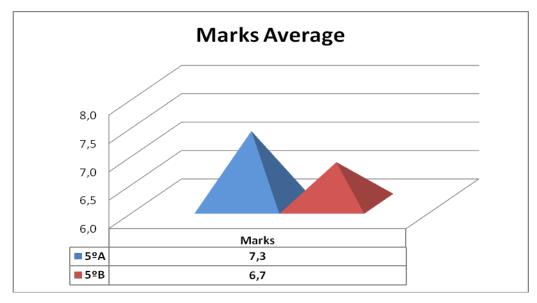


Figure 2.-Mark Averages.

This figure shows that the average of the JClic class (5<sup>th</sup> A) is higher than the average of the 5<sup>th</sup> B class, which did not use it. By mere observation of the graph we can already obtain meaningful conclusions for our research.

In the following, we have analyzed each activity separately to find out in more detail in which skills children develop better with JClic.

# **Activity 1**

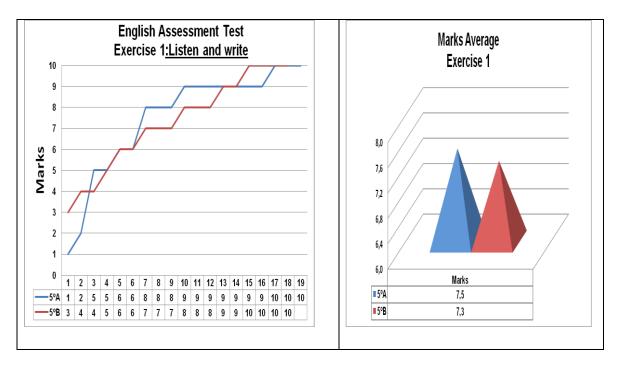


Figure 3.- Activity 1: Listen and write S (sometimes) or E (every day).

By means of analyzing these charts, we can see that the difference between the two classes is very small. Even so, the average of the experimental group is higher, with a 7.5 as compared to a 7.3 of the control group. Also, it shows that more children of the control group performed below the 5 point benchmark in the test.

# **Activity 2**

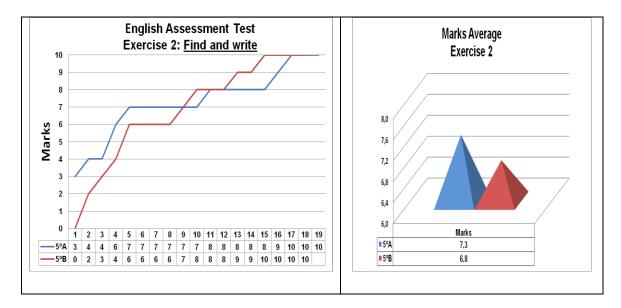


Figure 4.- Activity 2:Find and write.

Here, we can observe a more significant difference of variation of the mean, with a 7.3 of the experimental group as compared to a 6.8 of the control group. Also, there are more children below the score of 5 at 5<sup>th</sup> B as compared to 5<sup>th</sup> A.

#### **Activity 3**

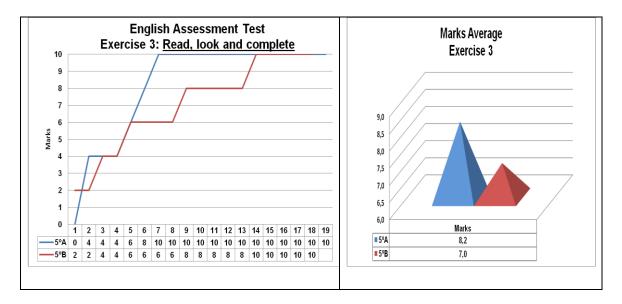


Figure 5.- Activity 3: Read, look and complete.

The variation in average of one group to the other one is very large, amounting to 8.2 points for the experimental group and 7 points for the control group, displaying a difference of 1.2 points.

# **Activity 4**

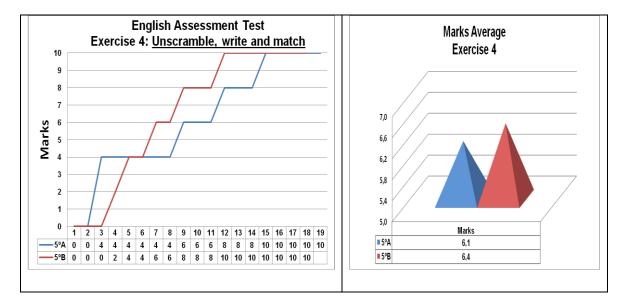


Figure 6.- Activity 4: Unscramble, write and match.

In this activity, as the graph represents, the mean of class A is lower than the average of class B, with a 6.1 compared to a 6.4, respectively. In this activity the results did not provide us the values that we had expected.

#### **Discussion of Tests:**

In this part, we are going to discuss the graphics of the marks obtained from the tests and the four activities. It would be very hasty to say that in the first analyzed graphics JClic improves the learning process just because we can observe in the blue line that the marks are at the top of the graphic, also as regards the mark averages of the blue pyramid (Class A) given that both of them (lines) are higher than the red one (Class B). Nevertheless, our first observations are very interesting for our research.

Big differences are noticed in three graphs between the experimental (class A) and the control group (class B). Class A is the one which receives better results in each activity except for no. 4. That way, we can demonstrate that class A, where JClic was used, displays the better results in comparison to class B. Moreover, in class B there are more students that did not pass the test than in class A.

Here, we can say that the writing, reading and listening skills are three of the

skills that students learn better with the use of JClic because they practice a lot of vocabulary and activities with this programme, such as: Read and complete the gap, Listen and repeat the vocabulary, Read and complete the sentences, Listen to a story, chant, song...,Read and put in order, etc.

As we established in the theoretical framework, Harmer (2007) notes that teachers should be careful while using the reading strategies of skimming and scanning bearing in mind that these operations can develop children's abilities and make them practice very well. Teachers also need to follow and observe their students before, during, and after the tasks and that involves the receptive skills.

This way, JClic, with the supervision of teachers, will make students better listeners and speakers, but only if the programme is used repeatedly and sufficiently. However, there is not a huge difference in activity 1 (listening) since our experimental time was limited to two weeks.

After this discussion we can claim that the use of JClic improves children's skills (listening, speaking, talking, writing and reading) and creates a pleasant and motivated working environment for children with the intention to facilitate the students' English learning process in order to get better results, as we have stated in our objectives. The use of the JClic program makes children more focused and this creates a good atmosphere in the classroom in order to make the teaching process easier as we had predicted in our hypothesis. For this reason, children get better results as we have seen before.

In a next step, we will analyse the questions and items' questionnaire that are related to new technologies. Thus, we can get an idea of the students' view on new technologies. We will go from the general questions to the specific ones.

We have had a total of twelve questions divided into common and specific; the common ones being eight and the specific ones being four, the specific ones are related to JClic. Twelve questions were handed out to class A and eight questions were given to class B.

# 1. Common Question about ICT(A&B)

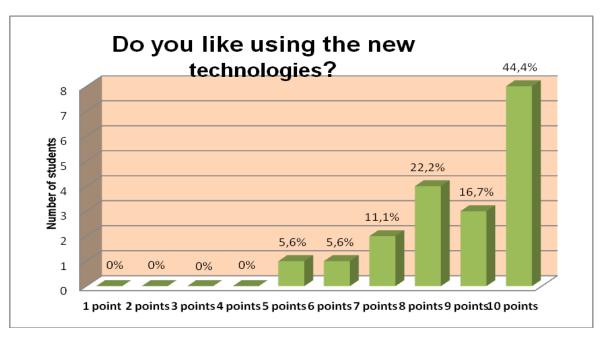


Figure 7.-Do you like using the new technologies? (5°A)

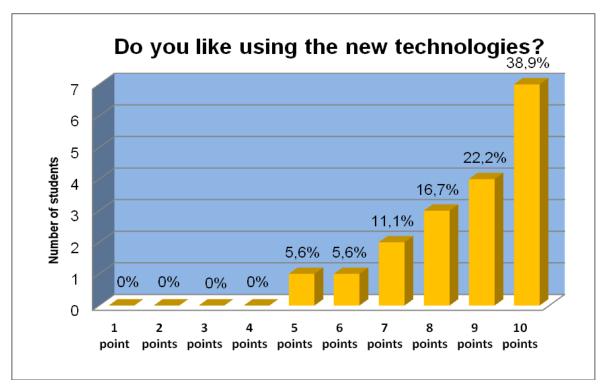


Figure 8.-Do you like using the new technologies? (5°B)

In these two charts of the two classes we can observe how much the students like to use new technologies. There is a total of eight children (44.4% of the class) from the  $5^{th}$  A class who evaluated it with a value of 10 whereas a total of seven

students (38.9% of the classroom) of the 5<sup>th</sup> B class evaluated the new technologies with 10 points.

# 2. Common Question about ICT(A&B)

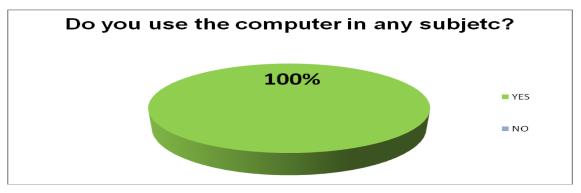


Figure 9.-Do you use the computer in any subject? (5°A)

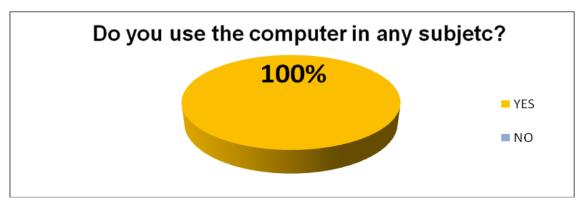


Figure 10.-Do you use the computer in any subjetc? (5°B)

This question is related to the next one, so that we will carry out the analysis in the following question.

# 3. Common Question about ICT(A&B)

We are going to create a table since it is an open answer. In which subjects do you use it?:

English subject	I.T. Subject
Play	They do everything using the
	computer in this class.

Table 6.- In which subjects do they use the computer?

Students from the two classes use computers in the I.T. subject and in the English class as well. Yet, in English class they only use it to play.

#### 4. Common Question about ICT(A&B)

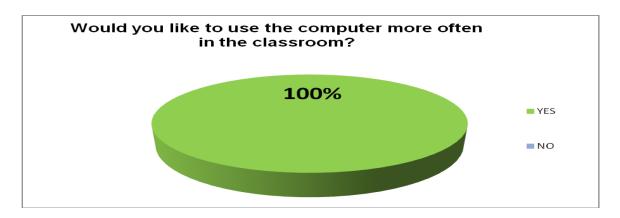


Figure 11.- Would you like to use the computer more often in the classroom? (5°A)

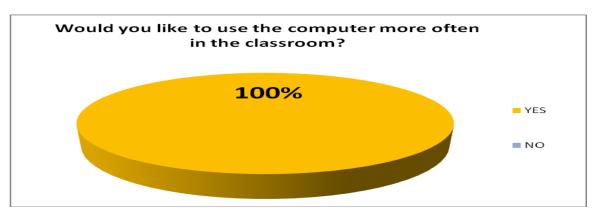


Figure 12.- Would you like to use the computer more often in the classroom?

It is obvious that 100% of the two classes would like to use the computer in the school's classes.

# 5. Common Question about ICT(A&B)

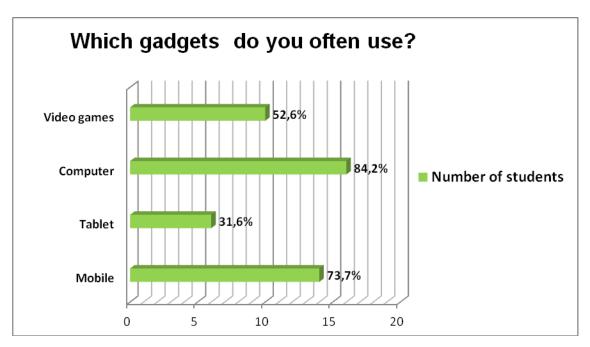


Figure 13.-5 Which gadgets do you often use? (5°A)

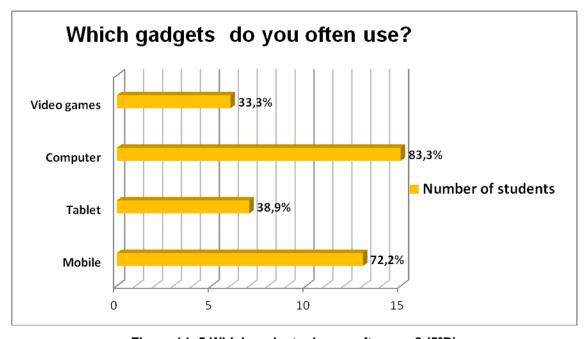


Figure 14.-5 Which gadgets do you often use? (5°B)

The two bar graphs show that the most used gadgets among the children are the computer and the mobile phone. However, the computer is the most voted one, with a percentage of 84.2% (Class A) and 83.3% (Class B), respectively.

### 6. Common Question about ICT(A&B)

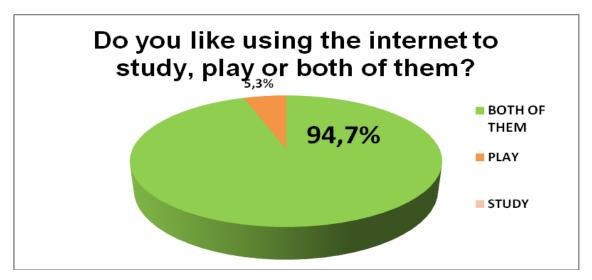


Figure 15.-Do you use internet to study, play or both of them? (5°A)

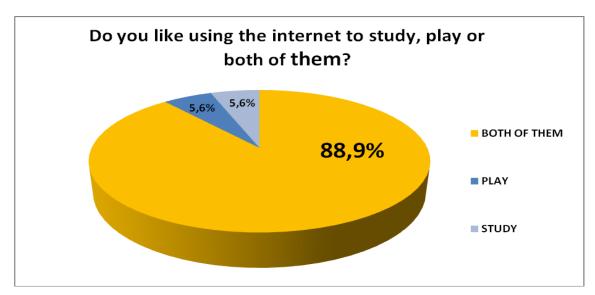


Figure 16.-Do you use internet to study, play or both of them? (5°B)

As we can see in these circular diagrams that correspond to one of the items in the questionnaire in class A and B, 94.7% and 88.9% use the internet to study and play, respectively. Here you can see that they are absolutely familiar with the new technologies at home.

## 7. Common Question about ICT(A&B)

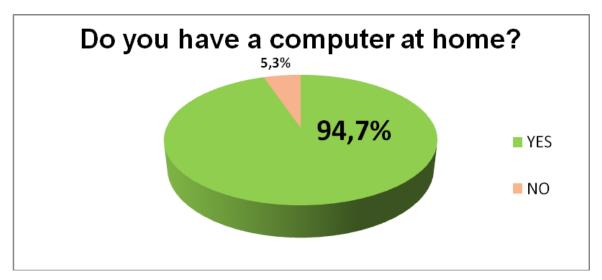


Figure 17.-Do you have a computer at home? (5°A)

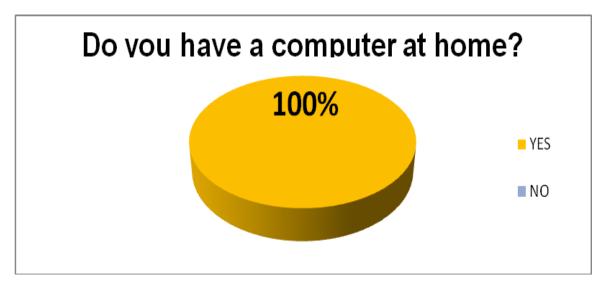


Figure 18.-Do you have a computer at home? (5°B)

You can easily see that every student has a computer except one student of class A. Nowadays, the majority of households are equipped with a computer.

#### 8. Common Question about ICT(A&B)

This question is very open for students in order to express what they want and need. There are no boxes in the options, so that we will use a table since it does not have exact percentages.

#### What type of activities do you do with your computer?

IN ORDER OF PREFERENCE	5°A	5ºB		
1 <sup>ST</sup>	Listen to music	Listen to music		
2 <sup>ND</sup>	Play games	Chat		
3 <sup>RD</sup>	Chat	Play games		
4 <sup>TH</sup>	Watch films	Watch films		
5 <sup>TH</sup>	Study	Study		

Table 7.-What type of activities do you do with your computer?

The favorite option of the two classes is listening to music as you can see in the table, followed by playing games and chatting.

#### **Discussion of Common Questions:**

Before starting with the discussion, we want to present again the objectives that we want to run after:

- 1.- To Identify if the use of the JClic programme with meaningful activities and effective teaching practices improves the process of Teaching-Learning in the English classroom.
- 2.- To improve children's skills (listening, speaking, talking, writing) through the use of an educational software called JClic programme.
- 3.- To create a pleasant and motivated working environment for children with the intention to facilitate the students' English learning process.

Firstly, as regards **question 1** (Do you like using the new technologies?), we can say that children of class A are a little higher motivated because 44.4% of the students have depicted a score of 10 as compared to 38% of the students of class B. This may be due to the direct contact that they had with ICT during these two weeks despite the fact that class B displays good results, too. Hence, as we established before, nowadays children love new technologies and it is strange that there is one

child who does not have a computer at home. Thus, children show great motivation and curiosity about these topics.

Question 2 (Do you use the computer in any subject), 3(In which subjects do you use it? and 4 (Do you like using more the computer in the classroom?) are not so relevant for discussion. These questions were asked in order to get additional information for our inferences. However, we can see that the majority of teachers at this school are not familiar with ICT because children are only using the computer in English class, in order to play or for the fast learner, and for I.T (Information Technology) subjects. By contrast, when looking at question 4; children responded that they like using the computer in the classroom (100% of the participants). Thus, teachers should use that enthusiasm and motivation of students to put the use of ICTs into practice in order to improve the Teaching-Learning process in the English classroom where it can be a good solution to diminish with the boredom of class.

**Question 5** (Which gadgets do you often use?) shows that every student has at least one gadget at home. The most popular gadget is the computer with 84,2% and 83,3%, followed by the mobile phone with 73,7% and 72,2% in classes A and B, respectively. In third and fourth place there are video games and the tablet. Therefore, we can say that almost every child is very aware of technological and cultural means. This, however, does not apply to every single student.

And finally, questions 6, 7 and 8 are related to each other. We remarked in **graphic number 7** that everybody (100%) in class B has a computer at home and 94,7% in class A (except one student), which is a good result. Though, in real life not all the students who have a computer use it as we can detect in question 5 (which gadgets do you often use?) where we can see that not all of the students use the computer although they have one.

Furthermore, in question 8 (What type of things do you do with your computer?) we find that there are contradictions in the use of it among the students. As regards the answer to **question 6** (Do you like using the internet to study, play or both of them?) 94% and 88%, respectively, of the class have replied that "they use the computer to play and study" because there were no more options to select. Nonetheless, children were "caught" in **question 8** which is an open question and they were free to write whatever they wanted. This way, their answers correspond to

the last option "study"; some children even stated that "they do not use the computer to study". We would like to point out that some teachers do not make good use of the ICT and they do not give online homework to students. Hence, a lot of students do not use a computer at home in order to study or, respectively, do not use it at all. Usually, students use the computer to listen to music, play, chat or even watch films but rarely in order to study because they are not familiar with ICT and they do not have practice at schools either.

Finally, as mentioned before, the use of the ICT teacher can provide an exceptional aid in the teaching-learning process that releases the teacher from activities in which his / her presence is replaceable; and as we stated before, according to Ausubel (1978), the Professor is a person too valuable to spend his time in routine conferences on areas of knowledge that are relatively stable and fixed.

Now we go on with the analysis of the specific questions about JClic which were asked in the experimental group (class A);

#### 9.-Specific Questions about JClic

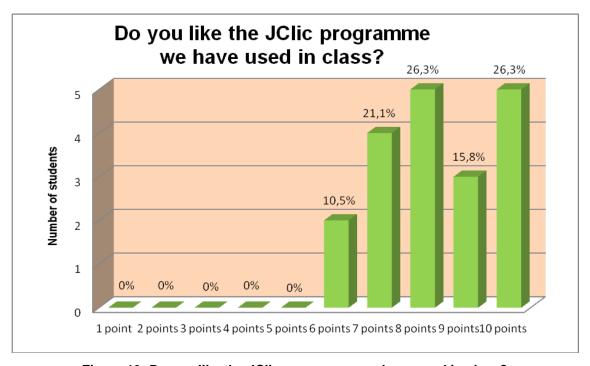


Figure 19.-Do you like the JClic programme we have used in class?

#### 10.- Specific Questions about JClic

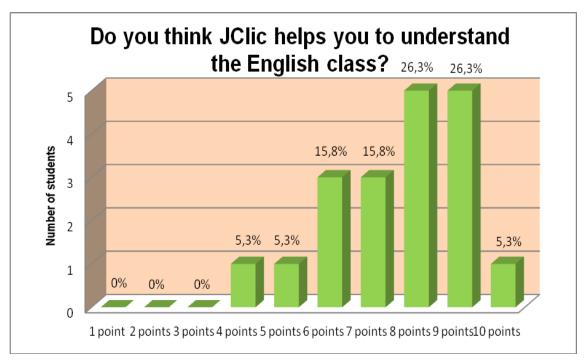


Figure 20.-Do you think JClic helps you to understand the English class?

#### 11.- Specific Questions about JClic

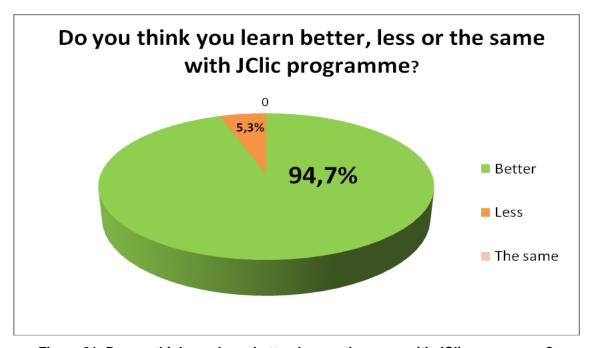


Figure 21.-Do you think you learn better, less or the same with JClic programme?

#### 12.- Specific Questions about JClic

The following question is a very general and open one. Here we will use another table to represent the students' opinions in class 5<sup>th</sup> A.

#### What did you like most from the JClic programme? And what less?

IN ORDER OF PREFERENCE	MORE	LESS		
1 <sup>ST</sup>	Games	Complicated games		
2 <sup>ND</sup>	Puzzles	Riddle		
3 <sup>RD</sup>	Listen to the words	Vocabulary		

Table 8.-What did you like most from the JClic programme? And what less?

#### **Discussion of Specific Questions**;

Checking **question 9** and seeing this graph, it can be seen that the students are happy with the use of the JClic programme with an average of 100% of students who gave more than 5 points for the programme and 89,5% of the class who gave beetwen 7 and 10 points. Therefore, since they are happy, they are motivated and if they are motivated, they are focused so that children can get better results as we saw before. Furthermore, teachers can teach easier than they normally could do.

Regarding **question 10** (Do you think JClic helps you to understand the English class?), 5.3% of the class (one student) says that JClic does not help to improve the learning process and 94.7% say that it helps to improve their English language acquisition. Furthermore, 52.6% of them give the programme 8 or 9 points. Moreover, in **question 11**(Do you think you learn better, less or the same with JClic programme?), 94'7% of the students think JClic helps them to understand the English language better and only one student says the opposite. Therefore, we can say that these results are fantastic because we can see that our main objective has been achieved: JClic improves the Teaching-Learning process in the English classroom.

To sum up questions 9, 10 and 11, we could say that we have achieved our hyphoteses:

a) The use of the JClic programme during teaching will arouse curiosity and motivation in students to learn and thus the tasks of teachers will become easier.

b) The use of the JClic programme improves the students' concentration and this ways it will create a good atmosphere in the classroom.

In question 12 we would like to comment on one minor characteristic which is nevertheless very important in class. It was also previously presented in the theoretical framework in point 2.5 of this paper. The teacher should know how to carefully choose the activity according to the knowledge of the students so that they will not get frustrated or bored. Here, in the table for question 12 where it says: "What did you like most and least from the JClic programme?" we can realize that children put at first position difficult games and riddles because they do not like them. On the other hand, games and puzzles are on first place because they really appreciate these kind of activities. Thus, teachers should be careful on the activity that they choose.

According to this, the JClic programme cannot be taken merely as a whim, but its sense and educational nature should be visible through clear objectives, contents, assessments and evaluation consistent with the ability of students. JClic is a very strong application to interlace learning with that knowledge that is easily forgettable, or to strengthen those skills that you have learned. It is relevant that the teacher considers ICT as a tool that will strengthen basic competences in order to get better results and train qualified children for their future lives.

To conclude this chapter, taking all of this information into account, we can say that in general the results are suitable for the purpose that we were chasing. Now, we are going to contrast the hypothesis in order to know if statistical significance is achieved or not.

#### 6.2- Hyphothesis Testing

In this chapter we are going to carry out a contrast of hypothesis by means of the **P-value method**.

The P-value is defined as the probability of obtaining a result which is at least as extreme as the one that actually has been obtained, assuming that the null hypothesis is true. It is essential to take into account that the P-value method is based on the assumption of the hypothesis.

In this case we are going to compare the marks of the tests obtained in the experimental group (class A), which uses JClic, and those ones obtained in the control group (class B) that does not use the programme.

In line with this, we ask the following question:

Can we assure with some level of significance that the use of the JClic programme influences positively the scores of the students?

5ºA	5°B
2,5	1,7
4	2,5
5	4
5,5	4,7
6,7	4,7
6,7	5
6,7	6
6,7	7
7	7
7,7	8
7,7	8,2
8	8,5
8,3	8,7
8,7	9
9	9
9,2	9
9,5	9
9,5	9,2
10	

To corroborate the preceding question we have formulated the hypotheses on which we will work:

 $H_0$  (null hypothesis): there is no significant data to support the issue.

 $H_1$  (alternative hypothesis): there is significant data to support the issue.

The level of significance that is usually used in research is  $\alpha=0$ , 05

Table 9.-Test's marks.

To carry out this contrast we will use the calculation software Microsoft Excel 2007, which will resort to the **Test-T** for two-sample assuming unequal variances, obtaining the following data:

TEST-T FOR TWO SAMPLE ASSUMING UNEQUAL VARIANCES						
	Variable 1	Variable 2				
Mean	7,28	6,73				
Variance	3,95	5,89				
Observations	19,00	18,00				
Hypothesized mean difference	0,00					
Degrees of freedom	33,00					
Statistical t	0,75					
P(T<=t) a tail	0,23					
Critical value of t (a tail)	1,69					
P(T<=t) two-tailed	0,46					
Critical value of t (two-tailed)	2,03					

Table 10.-Test-T.

As we can see, the programme offers us a series of data that have been obtained using different formulas and the corresponding statistics. There are several values of interest for our case.

One of the values provided by the table is the P-value (P(T<=t) two tails) =0.46, which is higher than our level of significance  $\alpha 0$ , 05. P-Valor >  $\alpha$ 

This means that we accept the null hypothesis, which tells us that **there is no** significant data to support the question we are asking.

We achieve the same results with the value of the **Statistic t** chart and the critical Value of t (two-tailed). As we can see, the value of the statistic t (0.75) is lower than the **critical Value of t (two-tailed) = (2.03)** which is the most critical value that **t** can take.

In conclusion, with the obtained results we can say that we do not have sufficient statistically significant data to accept the claim that the JClic programme influences positively the scores of the students.

However, as statistics do not consider several factors, from the point of view of the teacher, and given the increase in ratings of one class as compared to the other one in such a short period of time (2 weeks), we believe that the use of the JClic programme over a longer period would gain better results.

A further aspect that has to be taken into account is the sample that applies research, which is very low. If you extrapolate the results to the rest of the school, for example, the differences in the outcomes would be greater, and in this case the statistical data might be more significant.

#### 7.-CONCLUSIONS AND FUTURE STUDIES

#### 7.1- Conclusions

In this last section of my research paper "The use of JClic in the English Learning-Teaching Process", we shall recollect what has led to the realization of this work.

- 1- JClic, given the simplicity of its management and practice of its use for teachers at all educational levels, apart from generating support, also strengthens your class in an active, participatory and funny way, getting motivation and curiosity from the learner. This facilitates the Teaching and Learning process.
- 2- JClic plays a role when it comes to placing education in a new path and current educational route with the technological dynamics of the time. The use of JClic improves and creates a pleasant and relaxed work environment that facilitates the process of learning in children and the teaching process for the teachers, as we have seen and analysed above.
- 3- The teaching of English with the help of JClic contributes substantially and successfully to the learning process of students because apart from associating all the knowledge taught in class, it also improves the skills and abilities, allows the

interaction between students and computer and thus reinforces some basic competences.

To conclude, one can say that all the goals we set at the beginning have been achieved successfully and our hypotheses have been verified with my collected information. Although statistically, it was not possible to achieve because there was not enough data and we were investigated in a short period. However, for me as a future teacher it has been an achievement to corroborate with my data that there has been an improvement in that short period even though we expect that with a greater number of samples one may obtain statistically significant and positive results. The lack of veracity of results leads to possible future research in this field.

#### 7.2- Future Studies

Drawing to a close, we do not want to come to end without giving proposals for the future because we believe that this study has given us the opportunity to meet a context and to improve its results. We have to take this as a gateway that helps us to continue investigating in this area.

Possible new and further research might be to expand the context of research conducting a study on a large scale of a greater number of students that would involve the use of more classes, trying to apply it to different levels and even with a larger number of weeks in order to obtain more reliable data.

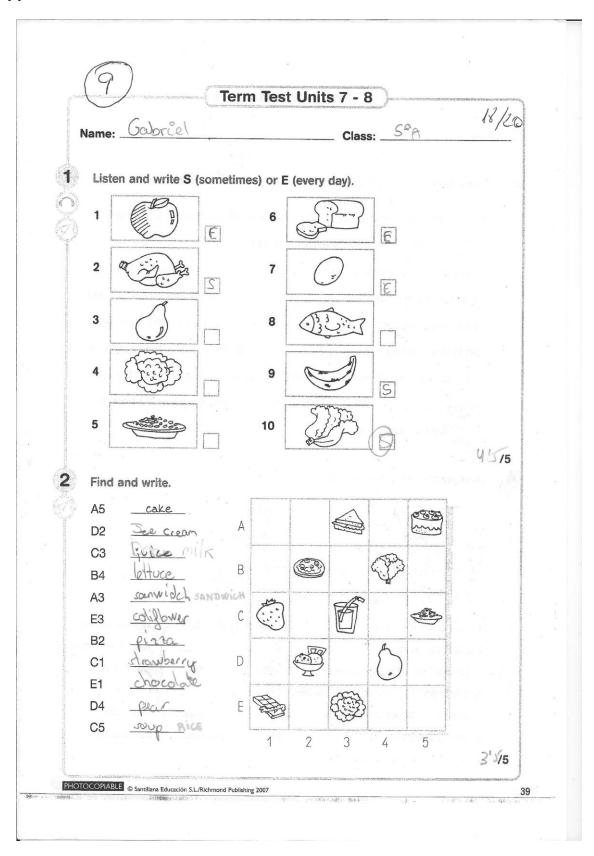
Another very interesting study could be to compare, within the same school class during the same year, the differences in the different educational aspects teaching half of a course in the traditional way and the other half with the JClic free software or other similar programmes.

On the other hand, another option would be to propose the study of a programme of private use against JClic free use in order to see which one fits as well as possible to the demands and interests of the students.

As you can see here, the diversity of studies that are in the air is quite extensive, so that with this work we hope to have opened up a way to so far new and unknown studies.

## 8.- APPENDICES

## Appendix 1:Test.



Name:	Class:	0.870
Read, look and	complete.	i e sus estal
My name's Da	an and I love food. I get up at eight o'clo	ck and I have
Cer	real for breakfast. I go to school and at	half past twelve I
have lunch. S	cometimes I have a shicken and	d sometimes
fish, but my fa	avourite food is <u>piate</u> . I have	e fruit every day,
sometimes a	peach or a I like lettuce	e and tomatoes,
so in the sum	nmer I eat <u>Salad</u> . In the winter	it's very cold, so
I like to eat so	omething hot for lunch. My favourite food in	n the winter is
- 500	. When I finish school I'm very hungr	y and I have a
chocolate sar	ndwich every day!	and the second of the second of the second
144		5
Unscramble, w	rite and match.	
T.	The same of the sa	
me		
. ( )		
II A		3 * * SA
1 name what's	s your What's your name?	Yes, he does.
2 you like do	fruit Do you like Druit	Yes, sometim
	r does fruit like Does your brother	No, I'm not.
	ow eat do vegetables How of ten do you en	, aumiai
	eat cauliflower	Yes, I do.
6 you greedy	are The Good Theory	Every day.

# Appendix 2: 5<sup>th</sup> A Questionnaire.

6.- ¿En cuál? ¿Y para qué?

2

1

7.- ¿Te gustaría usarlo más? SI / NO

8.- ¿Te gustan las nuevas tecnologías?

3

9.- ¿Qué tecnologías utilizas?

11.- ¿Tienes ordenador en casa?

12.- ¿Y para qué lo sueles usar?

CUES	TION	ARIO	SOBR	E NUE	VAS T	ECNO	LOGÍA	S Y J	CLIC:	
Edad: _			Curso: _	<del></del>	_	Día: _	<del></del>			
1 ¿Te	1 ¿Te gusta el programa de JClic que hemos usado en clase?									
1	2	3	4	5	6	7	8	9	10	
2 ¿Crees que te ha ayudado a entender la clase de inglés mejor?										
1	2	3	4	5	6	7	8	9	10	
	3 ¿Crees que has aprendido más, menos o igual? 4 ¿Qué es lo que más te ha gustado del programa? ¿y lo que menos?									

5.- ¿Usas los ordenador en alguna asignatura? SI / NO

4

10.- ¿Usas el internet para estudiar, jugar o ambas cosas?

5

6

SI / NO

7

8

9

10

#### Appendix 3: 5th B Questionnaire.

# CUESTIONARIO SOBRE NUEVAS TECNOLOGÍAS Y JCLIC:

Edad: \_\_\_\_\_ Curso: \_\_\_\_ Día:\_\_\_\_

- 1. ¿Usas los ordenadores en alguna asignatura? Si / NO
- 2. ¿En cuál? ¿Y para qué?
- 3. ¿Te gustaría usarlo más? SI / NO
- 4. ¿Te gustan las nuevas tecnologías?

1	2	3	4	5	6	7	8	9	10

- 5. ¿Qué tecnologías utilizas?
- 6. ¿Usas el internet para estudiar, jugar o ambas cosas?
- 7. ¿Tienes ordenador en casa? SI / NO
- 8. ¿Y para qué lo sueles usar más?

# Appendix 4: Photos.





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