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## **END OF DEGREE PROJECT**

Review of the literature on the use of ICTs as a  
motivation strategy in the English language  
classroom: Implications for developing  
communicative competence in pre-school children

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**Review of literature on the use of ICTs as a motivation strategy in the English language classroom: Implications for developing communicative competence in pre-school children**

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## **Abstract**

Nowadays, the introduction of Information and Communication Technologies (ICTs) in class and the rising development of informatic applications with curricular contents is producing a change from a methodological and didactic point of view. The information society of the 21st century is evolving towards a future school supported by digital technology.

Moreover, apart from these changes, we live in a globalised world in which learning a second language has become indispensable to the highly mobile population. In addition, it seems that it is necessary for children to be in contact with a foreign language from early ages. In Spain, in particular, this language is the English language.

The main aim of this project is to do a literature review of studies on the use of ICTs to develop competence in linguistic communication in English in pre-school education. More specifically, it will focus on studies that have inquired into whether the use of ICTs is associated with an increase in student motivation and, as a result, it leads to better development of key competences, and more specifically the Communicative Competence in English as a second language. This dissertation also looks at language teaching methodologies and integration of ICTs in the pre-school language classroom. Finally, it will discuss the need to integrate ICTs along this age, and to consider our students' motivation along the teaching and learning process.

## **Key words**

English as a foreign language, motivation, ICTs, Communicative Competence, Pre-school education

## Resumen

Hoy en día la introducción de las nuevas tecnologías en el aula y el auge en el desarrollo de aplicaciones informáticas con contenidos curriculares está provocando un cambio en las metodologías desde el punto de vista didáctico. La sociedad de la información del siglo XXI está evolucionando hacia una escuela futura apoyada por las tecnologías digitales.

Además, aparte de estos cambios, nosotros vivimos en un mundo globalizado donde el aprendizaje de una segunda lengua está convirtiéndose en algo indispensable para la cantidad de personas que se desplazan. Asimismo, parece necesario para los niños el contacto con una lengua extranjera desde edades tempranas. En España particularmente es la lengua inglesa.

El principal objetivo de este proyecto es realizar una revisión de la literatura sobre estudios en el uso de las tecnologías de la Información y la Comunicación para desarrollar la competencia en comunicación lingüística en inglés en Educación Infantil. Mas específicamente, nos centraremos en estudios que han indagado sobre qué va asociado al uso de las nuevas tecnologías que provoca un aumento en la motivación de los estudiantes, y como resultado, un mejor desarrollo de las competencias clave, más particularmente la Competencia Comunicativa en inglés como segunda lengua. Este trabajo de fin de grado también se centra en metodologías para el aprendizaje de una lengua y en la integración de las Tecnologías de la Información y la Comunicación en Educación Infantil con la misma finalidad.

**Palabras clave:** inglés como lengua extranjera, motivación, nuevas tecnologías, Competencia Comunicativa, Educación Infantil

## TABLE OF CONTENTS

Abstract	2
Resumen	3
1. Introduction	5
2. METHODOLOGY	6
3. ICTs and motivation	7
3.1. Studies on the use of ICTs in the language classroom	8
3.2. ICTS and motivation in the current legislative documents	12
3.3 How do pre-school children interact with ICTs?	14
4. Teaching Communicative Competence in English in the Spanish context	15
4.1 Foreign language and communication in pre-school	16
4.2. Communicative Competence in the Curriculum of pre-school education in Spain	18
5. ICTs and 21st century methodologies for teaching communication in English	20
5.1. Pedagogical models in the pre-school classroom: Connectivism	20
5.2. Active methodologies using ICTs	22
6. Concluding remarks and future directions	29
7. References	31

## 1. Introduction

Technology is present in every scope of our lives and as a result of school needs it is necessary to provide the required training to students. Consequently, they become competent human beings in the current society where ICTs have acquired a considerable weight in education nowadays. More specifically, in early years, in this case pre-school education, as claimed that “there is a need to introduce tools as the interactive whiteboard and the tablets pc in their daily activities in class, so that they get used to them little by little and in order to promote their motivation to learn” (Alonso, 2013)

The use of ICTs at school is getting more frequent day by day. A look at the objectives, contents, key competences, evaluation criteria and cross-curricular elements in the school curriculum of all the different autonomous communities in Spain shows that there is an urgent need to include new technologies in class, most of the time in an interdisciplinary and transversal way.

On the other hand, the call to integrate new technologies in the teaching and learning process is based on the premise that it can foster motivation in many ways as shown in a group of students who stated that:

The participants spent more time using ICT for private purposes than for English learning purposes. Most of them showed their positive attitudes towards ICT use to study English and expected that ICT should be used more frequently in the classroom in order to maximize language learning and teaching. (Nguyen and Tri, 2014, p.32)

Therefore, motivation seems to be a key factor in the teaching and learning process, and to a large extent, teachers are in charge of promoting motivation in the foreign language classroom.

Another relevant aspect is that knowledge of a foreign language allows people to communicate across borders and provides access to unlimited information online. In the Spanish context, the main aim of the current Educational law, that is to say, *Organic Act 8/2013 of 9<sup>th</sup> December, for the improvement of the Quality of Education* is to develop communicative competence in English and to promote positive experiences related to foreign language since pre-school education.

In this dissertation, I am going to focus on studying the methodological changes in teaching English as a foreign language through the use of ICTs in pre-school Education in the 21st century. This goal will be achieved through a literature review, that is, I will discuss studies which have demonstrated that using ICTs in the foreign language classroom can lead to an increase in motivation to work on and develop communicative competence in students.

The main aims of this review of the literature are:

- a. To find out whether ICTs contribute to motivate students when learning a Foreign language.
- b. To identify the benefits of using ICTs in education from early ages
- c. To inquire into the value of developing the communicative competence from early ages.
- d. To review different language teaching methodologies that integrate the ICTs.

## 2. METHODOLOGY

In order to develop this dissertation, I conducted a search of the main literature reviewed as general research that contributed to the main ideas of this dissertation, mainly in the English language. I hardly consulted Spanish publications, which could be one of the main limitations of the literature review.

The first aspect I focused on was that of studies which showed how the ICTs develop the students' motivation in the foreign language class. In this sense, research articles and book reviews have been searched through "Google Scholar". The main databases used to identify studies on ICTs and motivation, main key words for the literature review in this dissertation, were *DIALNET*, *PsycNET*, and *PsycODOC*. I looked at publications which appeared in the 21st century.

To retrieve the studies on which this dissertation is based I have applied as search criteria the use of key words such as, *active methodologies*, *new technologies*, *ICTs*, *motivation*, *EFL*, *pre-school*, *nursery classroom*, *communicative competence* and *English classroom*. To identify more context-specific literature for the Spanish setting I used key words like, *attention to diversity*, *LOMCE*, *curriculum of Aragón*.,

To decide which sources to exclude and what to include in the literature review I took into account the title, summary and index before including them.

To sum up, this dissertation has been developed from May to November of 2018. Regarding the sources of information reviewed, it is based on articles, books, dissertations, databases, reviews, and other secondary literature sources. The analysis of these sources contributed to reaching the objectives set in this dissertation.

### **3. ICTs and motivation**

Along this dissertation we are going to focus on the effect of the ICTs when learning, and how they contribute to the development of motivation in our students. Therefore, I will first provide a definition of these two concepts: ICTs and motivation.

ICTs (Information and Communication Technology or Technologies) is a term which includes all the devices, networking components, applications and systems that combined allow people and organizations to interact in the digital world (Rouse, 2017).

As regards the second concept that motivated this literature review, motivation, in this dissertation I focused on the extrinsic component of motivation which “means that the individual's motivational stimuli are coming from outside” (Types of motivation, 2017, par. 4). In other words, our desires to perform a task are controlled by an outside source. It is claimed that although the stimuli come from outside, the result of performing the task will be rewarding for the individual.

According to Bolstad (2004)’s literature review, she finds three reasons why the new technologies matter in preschool Education. The first one suggests that ICTs already have an effect on the background and people in contact with the students’ learning. The second one states that the new technologies provide opportunities to reinforce many aspects of these children education in practice. And thirdly, that there is a major interest in the whole education sector in implementing and integrating ICTs in the educative curriculum and its practice.

In this sense, this section is divided in three sub-sections in which I will focus on, first, studies that show the effects of using ICTs in the language classroom (2.1), secondly how the current legislative documents argue for the need to implement ICTs in education and

to develop motivation (2.2) and finally the ways in which preschoolers interact with ICTs (2.3).

### **3.1. Studies on the use of ICTs in the language classroom**

As regards the use of ICTs in the language classroom, it is relevant to mention a study conducted in different Spanish schools by Domingo and Marqués (2011) who showed in the results of the research that

Working in 2.0 classrooms (school rooms with a high technology infrastructure), 100 % of the students (in both Primary and Secondary Education) feel motivated about the tasks when using new technologies (particularly the Interactive Whiteboard and the computer) to develop them. Their comprehension, implication, participation and attention considerably improve with the use of these tools. (Domingo and Marqués, 2011, p. 172)

The main drawback of their research is that teachers have to spend more time in planning their lessons, but they also value positively that they have many resources and they can contextualise their classes

There is also an improvement in the acquisition of the key competences. According to the Spanish Ministry of Education (2015), these competences are:

- Linguistic communication
- Mathematical competence and basic competences in science and technology
- Digital competence
- Learning to learn
- Social and civic competences
- Sense of initiative and entrepreneurship
- Cultural awareness and expression

As Domingo and Marqués (2011) suggest, motivation is likely to be a very important factor in education because it may have a decisive role in the teaching and learning process. It is also important to note that the teacher is in charge of promoting motivation in connection to the use of ICTs in the language classroom to a large extent. As a number of studies have shown (Alonso, 2013; Domingo, and Marqués, 2011; or Nguyen and Tri, 2014), the use of ICTs could be a very beneficial resource to maintain the attention and interest of students. If the teacher has a positive attitude towards ICTs and he or she is able to motivate students to use them, students could find ICTs interesting to be introduced in their everyday tasks. As Thierry Karsenti and Lira-Gonzales (2011) showed

a very high level of motivation and being aware of self-effectiveness when using ICTs go hand in hand with a higher use of ICTs in class. But is there a pedagogical model that the teacher can use to apply in practice in the classroom? According to Scheerens et al. (2007, cited in Aris and Orcos, 2015), there are four paradigms that represent different ways to use ICTs in education, that is, ICTs can be used as an automatic device, as a tool, as a forum and as a means. All of them can be developed chronologically in the teaching and learning process.

The first paradigm, the automatic device refers to educational programs in which students have to fill in a black space in a sentence with a word or a number. This paradigm is influenced by behaviourism and structuralism (Valiente, 2010), and in this sense, the student is provided with a feedback in response. It is based on the use of routines in the teaching and learning process.

The second paradigm, which is the tool, is based on Jean Piaget's (1979) pedagogy. According to this paradigm, the teacher is a guide in the teaching-learning process and the students are creative and they are driven by their own curiosity to learn. Within this framework, ICTs have the role to support students' learning and as Fleiser (2011) and Livingstone (2012) stated the purpose of teaching within this paradigm is that students use computers for creative activities so that they are more active such as, one to one projects, the use of blogs, and others.

The third paradigm focuses on technology as a part of our daily lives, the forum of communication and interaction to exchange information and take part in virtual worlds. In relation to the English classroom we can say that using ICTs promotes the development of autonomous learning.

The last paradigm, in other words, is the use of ICTs as a medium. This last paradigm was added by Salinas (2005). In this type of paradigm, the user is really active and online learning is developed. Educational networks and distance courses use ICTs as a forum. The internet use is determined for the students by the teacher or the teaching team, so they can access and exchange information through different online resources, such as, blogs, social networks, and so on (Salinas, 2005, p. 14).

However, will a preschooler find it motivating to use ICTs in any of the forms established by the classification of Scheerens et al. (2007)? In early childhood education

we can find children who are very motivated by the use of ICTs-related games. This implies that, from very early stages, they are well acquainted with the use of smartphones, tablet and other electronic devices. A recent study has shown that, “in a playful way, the child is progressively introduced to the use of the new technologies and that learning is in itself an initiation to ICTs” (Aris and Orcos, 2015, p. 13).

In the classroom, the use of ICTs depends on the teacher and his or her ability to provide individualized learning through the activities that he or she develops. The confidence that the teachers show when implementing new technologies in class is also relevant. This will have consequences on students’ motivation, and also on the preparation of activities.

More specifically, considering the possible consequences that the way in which the teacher implements the use of ICTs in the language classroom can have on our students’ motivation, it is also relevant to mention Tamptekin (2012, cited in Herzberg, 2005). This author states that motivation is the result of the influence of two factors: motivation factors and hygiene factors. The first one refers to achievements, responsibility, recognition and incentives that mainly support the person’s satisfaction. Cleanliness factors, in turn, are related to the atmosphere and personal relationships that promotes a feeling of dissatisfaction when they fail (p.107).

Bearing in mind these definitions, it can be hypothesised that the teacher is likely to be the promoter of motivation in students. It can be argued that the teacher is in charge of creating a positive atmosphere in the classroom and the one who states the rules in there, so in some way he or she influences the students’ motivation. This person is also in charge of organizing the daily life of the classroom at school so he or she decides the tasks and activities that the students have to develop and he or she also decides what topics and contents are going to be worked on (considering or not our students’ preferences).

However, as Mendoza, Milachay, Martínez, Cano-Villalba and Gras-Marti (2004) suggested in their study on continuous training of teachers in using ICTs, it is indispensable that teachers are skilled when using new technologies and also that they count on a wide range of resources and abilities when implementing them, in order to develop creative and innovative activities for students. If the teachers neither convey enthusiasm nor promote working inside and outside the class through ICTs, these

resources are not being taken advantage of. In addition, the current education laws establish the aims about the promotion of these tools in Infant Education, so there is an additional need to integrate ICTs in the teaching-learning process which needs to be fulfilled.

Related to the learning of a second language at school, that is to say, the English language, ICTs could be valuable tools that promote motivation in class, due to the fact that they provide varied and challenging activities as Tinio (2002, p. 6) states and they also allow attention to diversity and help students to increase and improve their learning and autonomy.

As Moral Pérez, Villalustre, and Neira (2014, p. 65) mention, the following recommendations should be taken into consideration when using new technologies in class, so that they have a positive effect on students:

- Teachers have to perceive that their effort and invested time when innovating using the ICTs worth it and as such, they need to perceive the benefits while continuity and implication in new innovative projects is guaranteed.
- At school, there should exist an updating system with the necessary facilities and renewed equipment, frequently revising the stock of resources and tools and updating them annually.
- It would be highly recommended to involve the whole teaching staff in innovative projects, developing guidelines to follow when taking actions comprising every level, providing opportunities to participate collaboratively, taking into account suggestions and propositions.

Another important aspect which has an impact on the use of ICTs as a motivation strategy in the teaching and learning process is, how involved are families in the use of new technologies, as well as, the digital equipment which they have at home. It is important to bear in mind that some students start using these devices from early years thanks to the family's support. Depending on the importance that these members give to the school tasks, pupils could become more or less skilled in the use of ICTs for learning. The familiar environment of the students has to value students' efforts and reinforce the positive attitude towards learning, if not they can lose interest in learning and they will not make an effort to use properly the new technologies.

Besides, apart from the teachers' training in the use of these digital tools, there should be a necessary commitment to the use of innovative and active methodologies. If both factors are not developed together, it will be quite difficult to promote and implement work with ICTs in the classroom as a methodology.

Finally, teachers should think ahead in case there would be any digital or computing problem, such as, the internet connection or a wrong operation of the devices, so that they could find an instant solution to them. This points out to the importance of continuous professional development when it comes to the implementation of the ICTs in the teaching and learning process.

Therefore, in this section I have tried to find out whether there is evidence on the use of ICTs as a motivation strategy in the teaching and learning process. What stands out is the role of the teacher in the appropriate implementation of ICTs in the learning process and the need for providing professional development to teachers so that they can use ICTs effectively in the classroom. In the next section, I will move on to the legislative documents and the information they include on the use of ICTs in connection with the need to promote motivation in our students.

### **3.2. ICTS and motivation in the current legislative documents**

The current educational and national law which is the *Organic law 8/2013 for the improvement of quality in Education* (in Spanish, *Ley Orgánica para la mejora de la calidad educativa* or LOMCE) promotes the use of the new technologies and suggests “the general incorporation to the educative system of the Information and Communication Technologies (ICTs), which takes into account the principle for every person and worldwide accessibility, allows individual education and adapt it to the needs and pace of every student”. This principle is essential in the school stage on which we are focusing throughout this study (more specifically in pre-school education) due to the fact “students have different capacities and it is necessary to adapt the teaching practice to each student's characteristics, needs, interests and learning rhythm” (Order of 28th March 2008, p. 5). According to the current legislation, in Spain the inclusion of tools such as, virtual learning environments, and computer applications, among others is an indispensable step in education, and as a result, teachers must train students, so they can develop the digital competence.

In accordance with the curriculum of Aragon for pre-school Education, it is mentioned that “for the purpose of integrating into the information and knowledge society in the classrooms of Aragon, in this stage it is fostered a communicative and global approach to the progressive use of the technologies of the information society. They are used as a didactic resource for the teaching and learning processes in all the areas of the second cycle of Infant Education where the use of the ICTs is fostered in combination with the others contents of the stage” (*Order 28th March 2008 of the Department of Education, Culture and Sports, by which the curriculum of Infant Education and its application in scholar centres is authorised, p. 4944*).

As it is mentioned in the curriculum of Aragon, the use of different and varied resources and learning tools allows students to understand the world. In this sense, these tools have to promote curiosity and interests in students, as well as fostering the development of different competences which will lead to motivated students in class. These digital tools allow working on activities developing symbolic game, mathematics, arts, motor skills, language, etc, up to the new technologies as an educative resource. They also allow the use of these generalized, appealing and motivating resources, to research information and also to develop new abilities and strategies.

In addition, according to the Aragonese curriculum the need to provide meaningful learning that will help students create connections between their previous knowledge and the new information, should also be considered. The aim is to promote students’ motivation and also the development of a positive attitude towards learning.

Of note, in the curriculum of Aragon we can also find information about the progress of the information and communication technologies that has influenced the ways of learning and how knowledge is approached to reality. These new technologies as an educative resource bring real knowledge to students, motivating and entertaining them. It is argued that if the whole educative community would work together in teaching a proper use of these resources from early ages, the training and results of students might be positive.

After discussing the legislative framework linked to the use of ICTs in the classroom, in the next section I will focus on the interaction of pre-school children with ICTs.

### **3.3 How do pre-school children interact with ICTs?**

In order to understand the new generations of children, a definition of the term millennials is needed. This is a “term widely used to designate those generations born from the 1980s onwards and who have been raised in a context where digital technologies form an inextricable part of daily life” (Francesc, 2006, p. 2). Therefore, these are the generations of children who are born in a society where the digital media surround them, and who are expected to be familiar to all these devices and usually in contact to its uses. “Although the stereotype suggests that Millennials are all teenagers, the fact is that children begin their exposure to ICT at very young age” (Francesc, 2006, p. 3).

Regarding the specific characteristics of pre-school learners, it has been argued that “children have less developed physical and verbal skills, being less capable of working on their own” (Ramirez, Martin, Orgaz and Cañedo, 2015, p. 2). For example, when using the ICTs, handling the mouse poses a major physical challenge for them (Donker and Reitsma, 2007). What is more, locating features on the screen and understanding written messages are especially potent cognitive challenges for pupils in early childhood education (Wood et al., 2004).

Another important aspect that has an impact on the way that children interact with ICTs in the classroom is that “the learning environment is characterized by a lower frequency of formal learning situations, shorter activities, greater task diversification, more manual activities, less deskwork, and more supervision” (Ramirez, Martin, Orgaz and Cañedo, 2015, p. 4). At this stage, most of the times, the use of the new technologies is seen as a game more than a teaching resource.

There is research that illustrates the specific advantages of digital materials for pupils of this age (cited by Gimbert and Cristol, 2004; Lee and Choi, 2008; Lin, 2012). The most frequently cited ones are the following: “access to designs whose appearance is motivating, with dynamic, colorful and interactive presentations; the option of developing individual teaching processes and independent learning, and the ability of ICTs to respond immediately to the actions in simulated environments” (Ramirez, Martin, Orgaz and Cañedo 2015, p. 4). These kinds of presentations are really appealing for early age students, and as it has been mentioned in this age, attention to diversity and the prevention of future learning difficulties is really important. The use of these tools can provide big

amount of information, especially when a child interacts with classmates during the different activities in both languages, their mother tongue and the foreign language.

As Bolstad (2004) suggests, there are some guidelines to establish the level or quality of the use of ICTs in pre-school education classrooms when it comes to creating an environment in which children can interact with digital technologies. These guidelines cover aspects that range from physical to technical arrangements, such as children's access to the digital devices, the placement of the electronic devices in the class, and also the type of software in these devices. There are also other aspects to highlight which are the educational and social features of the learning background of the students that has an impact on their interactions with ICTs. In this sense, we can find the quality of the interactions in the class, the contexts, their role and the teacher's role when using these tools, the objectives previously established when developing different activities, and also how these devices (electronic ones) take place in the activities.

## **4. Teaching Communicative Competence in English in the Spanish context**

Another concept that motivated the literature review done in this dissertation is that of Communicative Competence. More specifically, I was interested in finding ways to develop language learning using ICTs. Language is an essential and characteristic part of human beings. It is widely accepted that what we call "language" must have a similar basic structure and be used to transmit ideas, feelings and thoughts.

Children around the world start speaking roughly at the same age and following the same pattern. The ability to understand each other and our societies is what differentiates us from animals. Communication among human beings is a complex phenomenon that includes a great range of variables. This process of communication is even more difficult in a Second Language where a new system of signs has to be acquired. In this range of age, students are still learning and improving the oral and written skills in their mother tongue, so that the learning of a second language normally starts orally with different supports (it can be digital or manipulative resources) but always bearing in mind the main aim of the activities which is the development of the Communicative Competence (always adapting to their rhythms of learning).

When introducing the foreign language in early ages, we will be promoting the importance of communicating in a language different from the children's own language, while at the same time transmitting social and cultural values towards a different language. The idea of communicating all around the world in another language is vital to start creating an interest towards learning languages in students as it is the vehicle to interact with people from different communities and countries.

The implications of the development of the Communicative Competence in a Foreign Language are that it involves a change in the planning and sequencing of the teaching and learning process. In order to help the students develop such competence, we have to provide them not only with a wide range of resources, but also with enough opportunities for communicative exchanges. Teachers also have to bear in mind the students' capacities and different rhythms of learning in order to adapt the activities, so that they can feel confident in class.

Therefore, Communicative Competence is a key dimension of teaching and learning a foreign language. This motivates the next section, in which I will discuss how can a foreign language be taught to develop communication in the preschool classroom.

#### **4.1 Foreign language and communication in pre-school**

First of all, it is relevant to provide a definition of language:

Language constitutes a significantly complex human activity, the function of which is to transmit feelings, sensations and experiences, to express opinions and to give information. In short, it is a key tool that allows speakers to understand and represent reality, and to integrate themselves within the society to which they belong. (Aguaded and Pozo, 2011, p. 1)

In line with this definition, Halliday (1979) has advanced a complex theory of language as communication. Firstly, he considers a structural view in which language consists of elements following certain rules, in other words, grammar rules; secondly, a functional view of it which is the use of language to achieve different functions, mainly to transmit ideas and express feelings; and thirdly a view of language as interaction, that is, language is the vehicle for interpersonal relations.

To define communication, I will adopt Canale's (2001) definition. According to this definition, communication can be explained as a social interaction between two people (a sender and a receiver) using authentic language (channel) to share specific information (the message) in a specific language (the code) and in a specific situation (the context). Apart from that, Hall (1989) considers that there are three requirements for communication which are: something to communicate, somebody to communicate to and a purpose in the communicative act.

Focusing on the concept of Communicative Competence, it is a term in linguistics which refers to a language user's grammatical knowledge of syntax, morphology, phonology and the social knowledge about how and when to use utterances appropriately. It is also relevant to mention the definition provided by Canale and Swain (1980) which is a synthesis of an underlying system of knowledge and skill needed for communication. In this definition the concept of "knowledge" refers to the conscious or unconscious knowledge of an individual about language and about other aspects of language use. For these authors, there can be three types of knowledge: knowledge of underlying grammatical principles, knowledge of how to use language in a social context in order to fulfil communicative functions and knowledge of how to combine utterances and communicative functions with respect to discourse principles.

Considering all of these concepts and implications from different authors, it is necessary to mention that Hymes (1970) coined the term Communicative Competence and defined it as the ability to use language communicatively in different situations. In fact, he divided this competence in five sub-competences defined by Canale and Swain (1980) which are: grammatical, discourse, strategic, sociocultural and sociolinguistic. The first one, grammatical competence, refers to the ability to use properly the rules of the language system. For example, to know the position of the adverbs in English.

Then again, discourse competence is the ability to use different types of speech or writing depending on the situation and do it coherently and cohesively. Sociolinguistic competence is defined as the ability to adapt the sentences and utterances to a particular social context (a particular social class, registers, regional languages...).

Another important competence, strategic competence refers to the capacity to influence the course of a communicative situation (the intonation, the movement and the

body). The objective is to improve the reception and maintain the channel of communication open.

And finally, sociocultural competence refers to the familiarity with the social and cultural context, the environment and the background where the language is spoken.

Bearing in mind these competences which are the elements of Communicative Competence, it should also be added that this main competence is formed by the mastery of both receptive and productive oral and written skills. But apart from these skills, the Council of Europe and the Common European Framework of Reference for Languages (2001) established an extra skill, that is oral interaction. It is defined as the ability to adequate our discourse to the diversity of contexts as well as the speakers who are involved in the communicative act.

To sum up, the development of the five skills (listening, speaking, reading, writing and oral interaction) is guaranteed by the Educative laws mainly because they reflect an approach to the methodology of teaching Communicative Competence. In Spain the Educative curriculum is firstly defined by the Organic Act 8/2013 for the improvement of quality in Education and secondly it depends on the regional education authorities. In Aragon it is defined by the Aragonese Curriculum.

In both curriculums, one of the main aims is to be communicatively competent in at least one Foreign Language; to produce and understand simple messages and to take part in everyday situations. In preschool education, children will be introduced to the learning of a Foreign Language by the age of three in their first year of the second cycle of this stage. In the next section I will focus on the legislative documents that regulate foreign language learning in preschool education because every teacher in Spain has to follow these guidelines.

## **4.2. Communicative Competence in the Curriculum of pre-school education in Spain**

At this stage (second cycle of Pre-school Education), according to the Aragonese curriculum for Pre-school Education, that is to say, the Order 28th March 2008, children will be introduced to oral expression in a foreign language, and at the same time, their motivation and interest in the foreign language will be pursued.

As regards the objectives of teaching oral expression to preschool education students, the contents that have been established are those of basic vocabulary and common expressions for social relations, such as greetings and daily routines in class.

The methodological principles recommended by the national curriculum are based on repetition and guided practise. Daily routines are very important as well, and their context is that of the preschool class. Of note, the curriculum highlights the need to provide them with the vocabulary needed for social oral interaction. Songs, rhymes and chants related to familiar topics such as, the days of the week, the weather or greetings are recommended to help students develop interest and acquire vocabulary in a motivating way. Another resource recommended to promote communication in the English class are the storybooks (for example Maisy's stories) which are supposed to give students vocabulary in context. Children get in contact with stories since they are very young, so this resource helps to create a familiar context in which students feel comfortable.

Again, art activities need to be integrated to develop creativity and exploration of vocabulary in context. As it was mentioned in previous sections of this dissertation, the use of the ICTs has to be present in the daily life of the class, so that the use of videos (such as, Lunar Jim) be motivating. ICTs could be a great tool for the use of language within a background previously established. The use of Total Physical Response is a source of another type of activities that will help students learn by doing, and in this way, they are meaningful.

In order to adapt to these ages and according to the current law, activities should be flexible and constantly changing, because the attention span of children at this age is very limited.

At this stage the evaluation criteria for the students' development will be their interest in taking part in the activities in the Foreign Language class and how they start in producing oral exchanges. In this sense, the teacher should be in charge of attending to diversity and assuming a role of observant in case he or she perceives any difficulty so that there are prevention actions in this range of age.

In conclusion, we can conclude that in this stage it is important and recommended that teachers focus on the oral part of the development of Communicative Competence in students, and it is indispensable to provide familiar contexts to students and approach

them to real situations through activities adapted to their age-related abilities. These recommendations are closely connected with teaching methodology. Therefore, in the next section I will discuss the active methodologies used to teach English as a foreign language in the 21st century, focusing in particular on those which integrate the use of ICTs.

## **5. ICTs and 21st century methodologies for teaching communication in English**

During the last decades, different methodologies have emerged to cover the necessities of the current society when learning. The role of the teacher and the students have completely changed as a demand of the training in competences that students need for their future.

Two main pedagogical models (Constructivism and Connectivism) will be the focus of this section. These have been chosen because they are included in the current methodologies adopted to teach and learn a foreign language. I will also review some of the most up-to-date methods used in the English classroom because they take into account the students' personal needs (active methodologies, and learner-centered approaches). And in a third sub-section I will provide review of the use of ICTs in teaching from the start and until today.

### **5.1. Pedagogical models in the pre-school classroom: Connectivism**

Of note, the integration of ICTs is changing the way in which the teaching and learning process develops and also the tools provided to the students and used by the teachers to carry out this process are different. Regarding the methodologies that are used nowadays to develop Communicative Competence through the use of ICTs, and also bearing in mind that motivation is a main dimension which characterizes the teaching methods of the 21st century, there are two pedagogical models which fit the current needs of students to live and work in such a rapidly changing world that is the society of today. These pedagogical models are Constructivism and Connectivism. Both models can occur at the same time as they share some principles which are related.

The first one, **constructivism**, states that students acquire an active role in the teaching and learning process and they are in charge of creating their own learning along the

process. In this sense, they create connections between their previous knowledge and the new ones.

In contrast, the teacher is in charge of providing the necessary contexts and tools so that students can create new experiences and knowledge. As Vygotsky (1978) states that social and cultural components will support their learning. A central technique of constructivism which reflects this idea is the scaffolding technique (Brunner, 1990). This technique advances the hypothesis of the need to provide the necessary support to students in order to develop meaningful learning drawing from their previous knowledge. The zone of proximal development is central to allow students to establish relations with the new learning. Finally, another important exponent of constructivism was Piaget (1960). He paid special attention to the interaction between students and the learning environment, for the introduction and creation of an optimal context for learning which is necessary for the process to be successful and somehow, the teacher will be in charge of providing it.

Closely related to the previous model, but adapted to the challenges of present-day society in the digital era, is Connectivism. This learning theory was developed by Siemens (2004) to address the current needs of individuals. According to this pedagogic model, a number of basic principles were formulated to guide the teaching and learning process. These principles are listed below.

- With respect to acquisition of new knowledge, it has been argued that there is a need to exchange information from different parts constantly (the exchange could be between two people or even a person and a device).
- Within this approach, both human beings and devices can be considered a source of information and learning.
- Learning is the outcome of different sources of information being interconnected.
- The student is in charge of deciding what to learn and the meaning that he or she gives to the new information, which is considered desirable in the learning process.
- It is also necessary that students develop their abilities to establish the existing connection between different ideas.

Review of literature on the use of ICTs as a motivation strategy in the English language classroom:  
Implications for developing communicative competence in pre-school children

- The different opinions of the people are part of learning; therefore learners have to show respect for other opinions.
- In a learning process that has as main aim continuous learning it is important to keep the connection and promote interaction.

These principles point to the importance of using active methodologies when teaching a foreign language through the ICTs.

## **5.2. Active methodologies using ICTs**

An aim of this dissertation was to provide an overview of the new methodologies that have emerged in the 21st century to teach English as a Foreign Language. In this part of the dissertation I am going to mention the main methodological approaches and methods that aim to develop Communicative Competence in students. According to these methodologies, motivation is an indispensable factor in the teaching and learning process and also the use of the ICTs is present all along in their use.

Working towards the development of Communicative Competence has a wide methodological basis. A number of authors made contributions that promote the development of this competence. One of these contributions is that of Bruner (1990) who suggests that students need to be exposed to new contents which are connected with the previous ones, as the basis of his spiral curriculum. This is based on a scaffolding technique that aims to help students assimilate contents gradually in accordance with their complexity. Vygotsky's Zone of Proximal Development (1978) is a related theoretical concept which is based on the idea that to help students construct their own cognitive schemas it is essential to bridge the gap between learners and knowledge. Ausubel (2002) suggests that learning has to be meaningful for students in order to be successful, which is another contribution to pedagogical models of the 21st century. In addition, Krashen's (2001) affective filter theory which stated that some emotions, such as anxiety, boredom or self-doubt might interfere with the process of acquiring a second language, is relevant to the teacher who needs to be aware of these personal characteristics. Finally, Piaget's (1979) constructivism is based on the idea that learning occurs when learners are actively involved in a process of meaning and knowledge construction as opposed to passively receiving information. Students need to create their own meaning to the knowledge they

are exposed to (for example in experiments, projects, classroom discussion, and so on). These methodological approaches have informed 21st century pedagogy.

Apart from these methodological approaches, the most common methodology used to achieve Communicative Competence in a foreign language is the Communicative approach as designed by Brumfit and Johnson (1979). This approach is based on the use of language as communication (see Halliday, 1979; Canale and Swain, 1980) within integrated contexts of communicative tasks, role-plays, decision taking and problem-solving situations. Through these tasks, it is argued that students become progressively more independent in their learning skills and integrate verbal and non-verbal elements in their discourse. This is a student-centred approach to the teaching of a foreign language, in which students are essential in the process, learning by doing and being responsible (intrinsic motivation) in the development of Communicative Competence. Students will develop independence in learning, learning to learn, learning meaningfully with the teacher's help acting as monitor, source, resource of information, promoter of interaction, cooperation and mediator in the classroom.

To the above-mentioned methodological principles, I would like to add CLIL, that is to say, Content and Language Integrated Learning. CLIL was coined in 1994 by Marsh as referring to "situations where subjects, or parts of subjects, are taught through a foreign language with dual-focused aims, namely the learning of content and the simultaneous learning of a foreign language" (Marsh, 1994, cited in Pinkley, 2012, p. 1). According to this approach students are developing their communicative competence in a Foreign Language (English in this case) while they learn specific concepts of a particular area, for instance arts and crafts. While they are studying about a specific topic, they are exposed to sociocultural and sociolinguistic elements of the language learnt.

According to Coyle (1999), CLIL is a combination of four elements. First, there is, content which refers to the skills and knowledge needed by the students about the subject studied; then, we have communication which has the role to promote the use of language to interact with the teacher and the students when learning the content mentioned before; a third element is cognition which refers to the thinking skills of the students (both higher order thinking skills and lower order thinking skills); and finally, culture is the last element and it refers to the atmosphere in which students interact an element which highlights the importance to raise awareness of different perspectives, so that students

develop their intercultural competence as global citizens (Coyle, 1999; Coyle, Hood and Marsh, 2010).

New technologies can be used with these methods, more specifically with the CLIL method which draws on ICTs for a number of aims:

It can: be a powerful motivator; add variety and interaction to a lesson; provide stimulating visuals to support understanding of language; help to create attractive and professional resources; provide teachers with linguistic support; be a rich source of cultural awareness; allow students to work collaboratively or independently. (Comfort, and Tierney, 2007, cited in Wojtowicz, Stansfield, Connolly, and Hainey, 2008)

Another methodology which is booming right now is the flipped classroom. Its main goal is that students work some contents of their academic year on their own, that is to say, through distance education in order to come into contact with specific contents that the teacher wants to work on in class more in-depth or practice them somehow. In this case, the internet connection is indispensable as well as computer equipment (computer, laptop, smartphone or tablet) so as students can easily have access to online resources provided by the teacher. The information that the teacher provides, depends on the students' age and digital skills. In this sense the teacher could use youtube (or another multimedia webpage): teachertube, Khan Academy and so on. In early ages where students are supervised by their parents (preschool and primary education mainly) it is necessary to control their progress and the family gets a role of helper in the ICTs use. The information and tasks are usually provided in blogs or on the school website. The use of these tools is relevant for in-class teaching and learning, although at home the families can support these activities.

An alternative to flipped classroom and based on its model, a new concept, "gamification", emerged as a result of the use of the new technologies in most of our daily life facets. Marín (2015, p.1) defines gamification as learning in a ludic way, through games in a digital format, so that the access to all of these games will always be by using a computer or a digital device. This method connects the didactic part (in the educative centre) with a more ludic part which allows students learn in a more motivating way. Many digital platforms, where teachers and students can find different games and they can interact with other people or even individually, have been created recently. Some of

these platforms which are very common in education nowadays are Socrative, Kahoot, Minecraft (Education Edition) and Classcrafts.

Another method which is very present nowadays in the teaching of a foreign language is the Project-based approach. It is a model of learning in which students are exposed to a project that has a real-world application. Students have a problem to solve in order to integrate new knowledge and the teacher arranges a well-structured and planned step to guide the students along the process.

According to Moust, Bouhuijs and Schmidt (2007, cited in Cabedo et al. 2015, p. 281) there are seven steps to carry out when solving a problem (there are some variations which were needed to adapt the method to the age proposed, Preschool Education). These steps are listed below:

- Firstly, clarification of concepts and terms that appear in the proposal project from the dialogue between group members is needed. The teacher will take the role of supporter and resource of information.
- Secondly, first tentative definition of the problem has to be given. After steps 3 and 4 this step can be repeated if considered necessary. The teacher help them to take turns.
- Thirdly, an analysis of the problem from the contributions of all group members is done through brainstorming. Depending on the age of the group the teacher will support and guide them.
- The fourth step is that of the development of a systematic summary with several explanations to the analysis of the previous step. Once the greatest number of ideas about the problem has been generated, the group tries to systematize and organize them, highlighting the possible associations among them. The students will create connections between their ideas with the teacher's support.
- Learning objectives are set in the fifth step and common decisions on aspects of the problem are made; these decisions have to be investigated and understood first and the internet facilitates this task of looking for information. The teacher could assign different roles to every student to easy their work.
- The sixth step consists in searching for more information, individually. The teacher provides the necessary materials and resources (they can be digital or physical support).

- And finally, the seventh step is that of synthesis of collected information and writing a report on the acquired knowledge. In this case, students are developing their reading and writing skills. The role of ICTs at this stage is to allow the teacher with the whole class make a summary of the results on the Interactive Whiteboard or on a support accessible to the students.

The application of this method by means of ICTs makes students feel motivated as they are exposed to a new challenge while the feeling of belonging to a group is fostered. As Michael (2005) states the student develops skills such as problem solving, decision making, teamwork and communication combining the development of different competences with Communicative Competence, which is the main aim of the second language learning. As they are looking for strategies to solve the problem, they are gradually becoming more independent and improving their social and learning skills, such as, working in teams under supervision, being progressively autonomous, identifying learning goals, managing time effectively, identifying which aspects of the problem can be ignored or need to explore more deeply and investigating on their own, thus directing their own learning (Cabedo, 2015, p. 281). In addition, the integration of ICTs leads to the development of digital literacy, a key skill in the Aragonese curriculum.

However, Task-based learning may be more relevant at the preschool stage when students are very young, and their attention decreases in a short period of time. This suggests that it is likely to be more convenient to seek for tasks that keep students' motivation and take advantage of it. In contrast to the Project-Based learning, this method takes place in a shorter period of time which is positive for this range of age, and normally it can be developed in a unique short period of time or lesson class.

Another methodology for learning a foreign language is Gardner's multiple intelligences, "an increasingly popular approach to characterizing the ways in which learners are unique and to developing instruction to respond to this uniqueness" (Richards and Rodgers, 2001, p. 123). In this sense, Gardner argues that rather than a single dominating general ability, there are various cognitive abilities, which are the following: Spatial, Linguistic, Logical-mathematical, Bodily-kinesthetic, Musical, Interpersonal, Intrapersonal and Naturalistic. Following Arnold and Fonseca (2004, p.126-130), a short description of these abilities will be provided below.

- The spatial-visual Intelligence refers to the ability to visualize things and space internally and involves the need to create a mental image of something. Visual elements are useful because they provide meaningful and comprehensible input for second language students. Words are connected to images.
- The linguistic Intelligence is the ability to use words when writing and speaking. Young learners normally display a facility with languages and expressing themselves. However, this intelligence does not make a direct reference to a second language learning, although there are many studies that show that people with a high level of linguistic awareness learn foreign languages easier.
- The logical-mathematical Intelligence is the ability to use logic, solve and analyse problems, use numbers effectively and the principles of a causal system. At school these students develop reasoning strategies.
- The bodily-kinaesthetic Intelligence is the ability to use their own body to express themselves and the capacity to handle physical objects skillfully. In general, these students are good at physical activities and performing.
- Musical Intelligence has to do with the capacity to appreciate and perceive rhythm, pitch and melody. This intelligence is related to the teaching method "Suggestopedia". This type of students is usually creative and are able to concentrate and connect with their inner self.
- Interpersonal Intelligence is related to people who can work cooperatively and communicate with other people. This intelligence is connected to the ability to empathize with others, a social process which is linked to learning a foreign language which has as a main goal to be competent when communicating.
- The intrapersonal Intelligence is the ability to understand yourself as well as practise introspective and self-reflective capacities. These students are aware of their own capacities and limitations.
- And finally, the naturalistic Intelligence is the capacity to connect information to one's natural surroundings, to know about flora and fauna and the enjoyment of ecology and the natural world.

With reference to second language learning and teaching (the English language), those students whose intelligence is the linguistic one, learn easily in the second language class and feel motivated about it. For the other types of intelligences, the teacher can create varied activities so that all students can feel motivated. There could be group activities such as, debates, role-plays, problem-solving activities, among others, for the interpersonal intelligences; in contrast, those with the intrapersonal intelligence prefer individual work so there should be activities that cater for their needs.

Moreover, for students with the logical-mathematical intelligence, what would be motivating for them may be solving problems, logic games and number puzzles, for instance creating code and decode messages mixing letters and numbers.

In the case of spatial students, the use of manipulative and visual resources, maps and grids would be preferred in activities such as completing descriptions, using maps of different places to give or receive instructions, etc. To work on the musical intelligence students can invent and create songs as well as singing chants, rhymes and songs. In relation to the previous intelligence, the bodily-kinesthetic way of learning is motivated by songs and rhythms but only when they are accompanied by gestures and body movements. These learners also enjoy moving around the classroom following commands. And the last one, the naturalistic intelligence in which students love talking about the environment and projects related to nature, they also enjoy doing word families and classifying words.

Of note, the main aim when teaching a foreign language and particularly in this case the English language is that students develop Communicative Competence, but always with the diversity of intelligences in mind. Through the development of different activities which cover all the intelligences of the students, we will be developing their extrinsic motivation, so they will feel comfortable and favourably disposed to learning. Consequently, the learning results may be more successful.

Considering all the information mentioned above, we are going to focus on an example to illustrate the implementation of teaching with ICTS. In this sense, the Interactive Whiteboard as a very innovative digital device, is taking place in many pre-school Education classrooms. It is a new specific technological device created for teaching and learning, it is an alternative to introduce the ICTs in education as it has some similarities to the traditional model, as it looks like a whiteboard for teachers, but it is a digital tool

which allows interaction in class. In relation to its use in pre-school Education, Alonso (2013) established that “The interactive whiteboard is used as a communication tool in Infant Education to improve: fine motor skills, spatial notions, temporal orientation, mathematical logical concepts, oral language, visual perception, auditory and tactile, graphomotor skills, listening, reading and writing skills, body scheme, attention, memory and respect of turns” (p. 8). All the skills mentioned are developed in this stage at school.

To sum up, I would like to advance what may be a strong claim, also made by Ausubel (2002) who proposes the meaningful learning theory, that is learning has to be consolidated and applied to practical uses, presented in connection with previous content and bridging the gap between students and knowledge, always taking into account the group’s psycho-pedagogic and evolutive characteristics.

## **6. Concluding remarks and future directions**

One of the main educative purpose in the current educative law in the Spanish context (LOMCE) is the attention to diversity, that is to say, teachers need to adjust their teaching practice to the different learning rhythms of the students, each educative need, as well as the attributes and possibilities of each pupil. It may be argued that the use of ICTs can be an excellent tool to cover these needs in the teaching and learning process in the foreign language classroom. One important finding of the literature review highlights the importance that the teacher has in this process. That is, regardless of the methodology that the teacher uses, he or she has to take into consideration these statements and always consider the motivation of the students along the process.

There is a need to value the use of the new technologies as an immersed element in the current society, and as such the introduction of these tools in education should be realised as soon as possible. However, research has shown that it is necessary to accompany the introduction of these devices by methodological changes. Another important aspect mentioned in the literature is related to the need to make an economic investment for the installations as well as invest in teacher training and professional development.

The use of ICTs in the teaching and learning process leads to teachers taking charge of the planning, tasks and activities design as well as using motivation strategies to ensure the success of the teaching. These aspects, together with the implication of the families

seem to be an important recommendation made in the reviewed literature that should be followed.

However, results also show that there is a long way ahead when it comes to a real integration of new technologies and active methodologies to help every student by providing personalised learning experiences. The inclusion of these tools in all the educative centres is another drawback pointed out in the literature. It seems that this challenge can only be overcome if teachers and the whole educative community get involved in the process to change the educative vision step by step. Although students in preschool Education are digital natives, they are not receiving quality training for developing communicative competence and because of that, there is still need to keep on working on this topic in the future, particularly in the context of the new digital era.

### **5.1 Future directions**

The society we live in is changing constantly and the school needs to face and adapt to all these changes. The literature seems to suggest that the integration of the new technologies at school may be one of the highest challenges that teachers have ever faced, mainly because it entails a methodological change in many aspects. It is widely recognized that many teachers do not adapt to the real claims of the current society. Therefore, there is a need to set aside the traditional teaching models, replacing them by active and innovative methodologies which set the students in the centre of the teaching and learning process. Also, teachers need to adapt their practice to the real needs of the society we live in. As a result, it is important to implement the use of ICTs together with active methodologies in every educational centre in order to improve the quality of education.

In spite of the multiple advantages that the use of ICTs has in the educational field, it has also been found that there is no full integration of these tools yet. Although the use of new technologies is growing little by little, we are far from claiming a proper and efficient use of them.

As regards to the use of the ICTs in education and their role as motivating tools, I believe there are many questions to solve and also many fields in which teachers can research and many other methodologies that can emerge. The first question that comes up to my mind is if the current society is really prepared to assume such a big change in

teaching and learning methods used in the classroom. One of the biggest challenges that these methods have to be addressed is that of giving children new roles in the educative centres, both in the teaching and learning process and in the use of ICT tools. However, this change can only take place if first of all teachers are given enough tools and training to make a proper and beneficial use of the ICTs., Therefore, it would be important to research about the economic investment that schools make in ICT tools and if this budget is enough to cover the real needs of the educative community and if it is promoting a quality education.

Another future question or suggestion is the need to integrate ICTs at all the educative levels, that is, in obligatory education (Preschool Education, Primary Education and Secondary Education). Thus, what kind of actions should be taken in order to integrate the use of the ICTs in obligatory education so that all the students could take advantage of these tools?

To conclude, I would like to mention that, in order to cover all the aspects mentioned along the dissertation, the evidence points out that one possible answer is that of making an intense use of the ICTs to cover the needs of the society of the future.

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