

Master's Dissertation/  
Trabajo Fin de Máster

# THEORY OF MULTIPLE INTELLIGENCES AND CLIL

**Student:** Alonso Losada, Alba

**Supervisor:** Dr. F. Javier Díaz Pérez

**Department:** English Philology

**July, 2020**

**Abstract:**

The main contribution of this master's thesis entitled "Theory of Multiple Intelligences and CLIL" is the proposal of a didactic unit for its development in the bilingual Natural Science lesson of 2<sup>nd</sup> grade of Primary Education.

This proposal is aimed at the inclusion of the Theory of Multiple Intelligences (MI) and the contribution that it can offer, once it is known which intelligences predominate in the classroom, for the design of a proposal based on teaching and learning activities according to the CLIL methodology, focussed on the establishment of a common didactic framework.

The reflection process has been carried out attending to two main aspects:

1. Establishment of a theoretical and conceptual framework on the use of MI theory and the CLIL programme for teaching a subject through English as a foreign language.
2. Formulation of the didactic proposal: Activities based on learning through CLIL and the Theory of Multiple Intelligences to carry out in the lesson.

**Key words:** Bilingualism, Learning process, Educational inclusion, CLIL programme, Multiple Intelligence Theory, Collaborative-cooperative learning, Didactic Proposal, Natural Science.

## INDEX

|        |                                                                                                                           |    |
|--------|---------------------------------------------------------------------------------------------------------------------------|----|
| 1.     | INTRODUCTION .....                                                                                                        | 5  |
| 1.1.   | Justification.....                                                                                                        | 5  |
| 1.2.   | Objectives.....                                                                                                           | 5  |
| 1.3.   | Structure.....                                                                                                            | 6  |
| 2.     | CONCEPTUAL – THEORETICAL FRAMEWORK.....                                                                                   | 6  |
| 2.1.   | Bilingual Education in Andalusia .....                                                                                    | 6  |
| 2.2.   | CLIL Programme .....                                                                                                      | 11 |
| 2.2.1. | <i>Origin of CLIL Programme</i> .....                                                                                     | 11 |
| 2.2.2. | <i>Advantages and disadvantages</i> .....                                                                                 | 13 |
| 2.3.   | Multiple Intelligences Theory .....                                                                                       | 14 |
| 2.3.1. | <i>Linguistic intelligence</i> .....                                                                                      | 17 |
| 2.3.2. | <i>Logical-mathematical intelligence</i> .....                                                                            | 18 |
| 2.3.3. | <i>Visual-spatial intelligence</i> .....                                                                                  | 18 |
| 2.3.4. | <i>Musical intelligence</i> .....                                                                                         | 19 |
| 2.3.5. | <i>Naturalistic intelligence</i> .....                                                                                    | 19 |
| 2.3.6. | <i>Interpersonal intelligence</i> .....                                                                                   | 20 |
| 2.3.7. | <i>Intrapersonal intelligence</i> .....                                                                                   | 21 |
| 2.3.8. | <i>Bodily-kinesthetic intelligence</i> .....                                                                              | 21 |
| 2.4.   | Combination between Multiple Intelligences Theory and CLIL programme.<br>22                                               |    |
| 2.4.1. | <i>Background references</i> .....                                                                                        | 22 |
| 2.4.2. | <i>Advantages and Disadvantages</i> .....                                                                                 | 23 |
| 3.     | DIDACTIC PROPOSAL .....                                                                                                   | 24 |
| 3.1.   | Context.....                                                                                                              | 24 |
| 3.2.   | Methodology .....                                                                                                         | 25 |
| 3.3.   | Practical application of the integration of Multiple Intelligences Theory in a<br>lesson plan with CLIL methodology. .... | 25 |
| 3.4.   | Didactic Unit .....                                                                                                       | 25 |
| 3.4.1. | <i>Objectives</i> .....                                                                                                   | 25 |
| 3.4.2. | <i>Contents</i> .....                                                                                                     | 27 |
| 3.4.3. | <i>Sequence of activities</i> .....                                                                                       | 28 |
| 3.4.4. | <i>Evaluation</i> .....                                                                                                   | 52 |

|    |                   |    |
|----|-------------------|----|
| 4. | CONCLUSIONS ..... | 53 |
| 5. | REFERENCES .....  | 55 |
| 6. | APPENDIX.....     | 58 |

## **1. INTRODUCTION**

### **1.1. Justification**

Bilingual education is not a new concept, this term has been heard in the teaching field for many years. However, is bilingual education possible?

In Spain, to respond to this demand to learn a second language, the bilingual programme and the CLIL programme (Integrated Learning of Contents and Foreign Languages) approach were implemented during the first five years of the 21st century. This approach integrates the study of foreign languages and the study of curricular content at the same time, in addition to promoting the development of the languages used for curricular instruction.

First of all, an educational review is carried out based on various authors who have worked on the CLIL programme and the Theory of Multiple Intelligences. In this way I will present a theoretical framework of these two concepts.

Secondly, the educational proposal is completed with the use of the MI Theory as a tool to promote educational inclusion in the classroom. Once it is known which intelligences predominate in the classroom, a proposal is established whose objective is to support the acquisition of the foreign language in the CLIL programme taking advantage of the benefits of MI theory.

The educational proposal focuses on a bilingual class of Natural Science.

### **1.2. Objectives**

The main objectives of this MA Thesis are the following ones:

1. Enunciate the CLIL shaping principles, as a methodological approach and programme for teaching foreign language content in bilingual subjects.
2. Identify the main characteristics of Multiple Intelligences Theory and their link with Bilingual Education in Primary Education.
3. Justify the application of the MI Theory to teach by CLIL method in the Natural Science course.
4. Design a didactic proposal that contemplates in its structure the development of Multiple Intelligences through the teaching of Natural Science, in order to enhance the acquisition of the foreign language by all students.
5. Contribute methodological conclusions in Primary Education, which may guide bilingual teaching through the development of multiple intelligences.

### **1.3. Structure**

This MA thesis is organised into three chapters. In Chapter 2, I will begin by introducing the educational context in which bilingual education is found. To do this, I will first present an overview of bilingualism and then I will delve into the CLIL programme. Secondly, I will expose a theoretical framework of the origin and development of multiple intelligences and then I will go deeper into each one.

Finally, this chapter will feature an analysis of previous research on the combination of the CLIL programme and the theory of multiple intelligences as well as its advantages and main disadvantages.

Chapter 3 delves into the integration of the theory of multiple intelligences within a teaching unit using CLIL methodology. To exemplify it, a series of activities, objectives, etc. are presented. This series of activities are organised as a didactic unit, the objective of which is to demonstrate the effectiveness or not of the aforementioned combination.

Finally, chapter 4 contains the conclusions and observations that may derive from this master's thesis.

## **2. CONCEPTUAL – THEORETICAL FRAMEWORK**

### **2.1. Bilingual Education in Andalusia**

In recent years, educational policies aimed at promoting bilingualism have been increasing. It has been promoted through different regulations allowing its access to the wide totality of students. Bilingual education implies the planning of an educational process in which two languages are used as educational instruments. On the one hand, the mother tongue and, on the other, a foreign language. Its purpose is that students can learn this second language while maintaining and developing their mother tongue.

Starting with Europe, the European Commission agreed in 2002 that students should learn at least two languages in addition to the mother tongue. (Barcelona European Council, 2002).

Related to Spain, I will start with the first data collected here about the bilingualism studies. The first collaboration agreement between the Ministry of Education and Science and the British Council was signed in 1996, with the aim of developing a

bilingual programme through the teaching of an integrated Spanish-British curriculum. The agreement has been extended and renewed on several occasions.

The last one was on April 18, 2013. This Spanish-British integrated curriculum programme begins in the 2nd cycle of Early Childhood Education and runs until the 4th year of Compulsory Secondary Education. Currently, it is established in 84 Public Schools for Early Childhood and Primary Education and in 49 Secondary Education Institutes, spread over ten Autonomous Communities, in addition to Ceuta and Melilla. The objective of the programme is to train students capable of developing in different cultures and be prepared to respond the demands of the 21st century in an increasingly ambitious and multilingual Europe.

In parallel to this agreement, the different autonomous communities have been developing regulations to legislate bilingual and trilingual education in Spain.

In 2005 the Plurilingualism Promotion Plan was published in Spain, which responded to the demand to undertake an ambitious educational project that allowed Andalusian citizens to achieve a broad knowledge of other languages in the framework of a global world, as a fundamental plan to ensure the chances of success and to share a better future as stated by the Junta de Andalucía. In the autonomous community of Andalusia, the general guidelines after the signed agreement focused on three aspects.

As the agreement explained:

First of all, keeping a weekly schedule as extensive as possible in the compulsory stage; signing agreements, protocols and covenants with foreign organizations and universities that allow the exchange and mobility of students and, above all, of teachers who teach foreign languages. These agreements, which are still in force, materialised between the Ministry of Education of the Junta de Andalucía and the Embassy of France in Spain, the Governing Board of Strasbourg, the Oxfordshire County Council, and the University of Salford (Manchester). It was also decided to introduce the second foreign language, as a compulsory offer among the electives in the Compulsory Secondary Education and, with obligatory character, in the Baccalaureate. (BOJA, 2005, 65, 5)

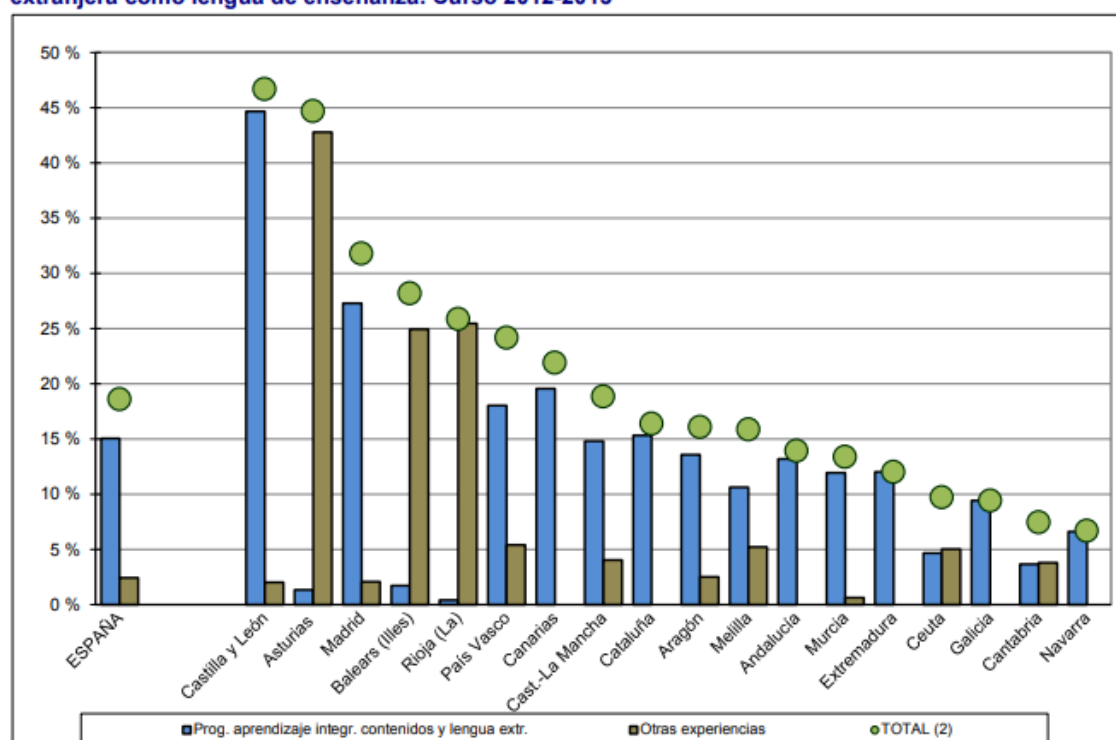
Teaching time of the second language in Spain is carried out as follows: one and a half and two hours of class per week for the kids until 7 years old, taught by the

teachers of the foreign language, in coordination with the course tutor. From the 3rd year of Primary Education onwards, a minimum of 30% and a maximum of 50% of the student's curriculum is taught in the foreign language, concretely in the Area of Knowledge of the Natural, Social and Cultural Environment and another area. From the 5th grade of Primary Education, the teaching of a second Foreign Language can be implemented with a load of two hours per week.

In Secondary Education four hours a week (five in 4<sup>th</sup> grade) are taught in the foreign language and in at least two subjects, assuring that they involve at least 30% of the curriculum. For the second foreign language the teaching load is three hours per week for all years.

In the following graphs I will show the relation of school in Spain organised into communities which are bilingual schools.

**E3.8. Porcentaje de alumnado de E. Primaria (1) que participa en experiencias que utilizan una lengua extranjera como lengua de enseñanza. Curso 2012-2013**



(1) En los cálculos no se incluye información de C. Valenciana por no estar disponible, salvo para los centros extranjeros.  
 (2) En el TOTAL se incluye también el porcentaje correspondiente al alumnado matriculado en centros extranjeros.

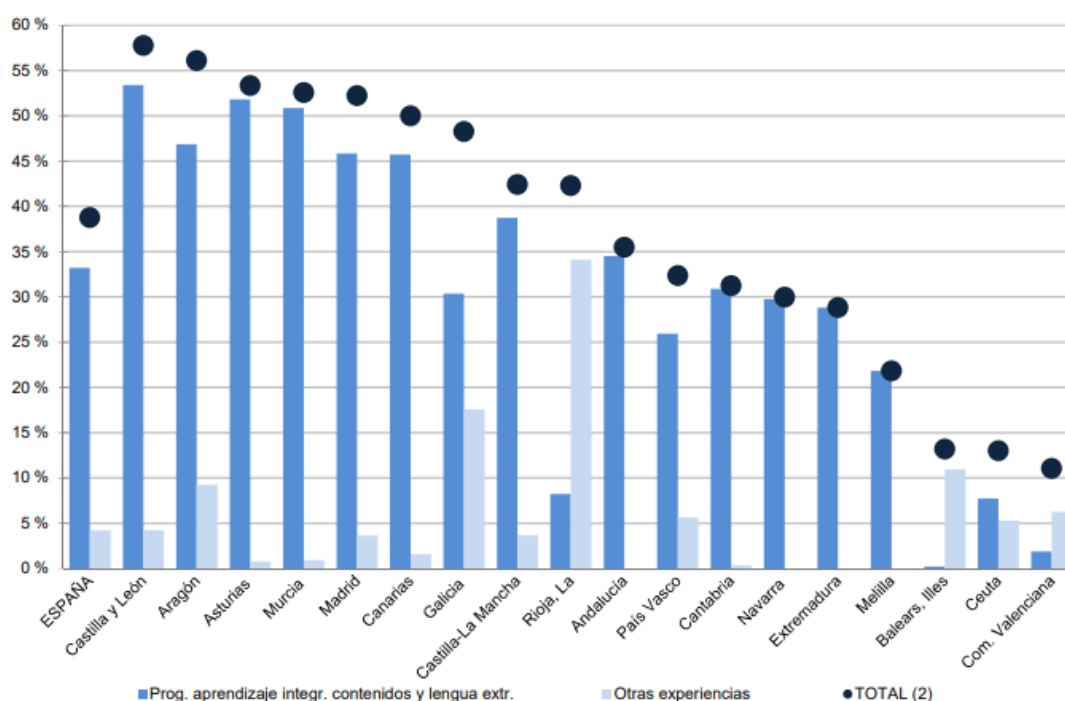
Graph 1. From: Las cifras de la educación en España. Curso 2012-2013

Graph 1 displays the percentage of students from Primary Education participating in experiences which use a foreign language as a way of learning a content subject in the school year 2012-2013. The graph 1 shows that Castilla y León is the

autonomous community which has the better outcomes in developing a CLIL programme, followed by the Community of Madrid. The rest of the autonomous communities are among 25% and 10%. These data have been published in the 2015 edition of *Las cifras de la educación en España. Curso 2012-2013* published by the Ministry of Education in Spain.

In Graph 2 it can be observed the results obtained 5 years later in Primary Education. In a first sight, the graph shows a general increase in percentages compared to Graph 1. Castilla y León continues being the community with the highest percentage, moving from 45% to 55%. Most of the autonomous communities are around 30%. This is a positive evolution if we consider that this is the latest data analysed. I have obtained these data from: *Las cifras de la educación en España. Curso 2017-2018*, which is the latest edition published in 2020 by the Ministry of Education in Spain.

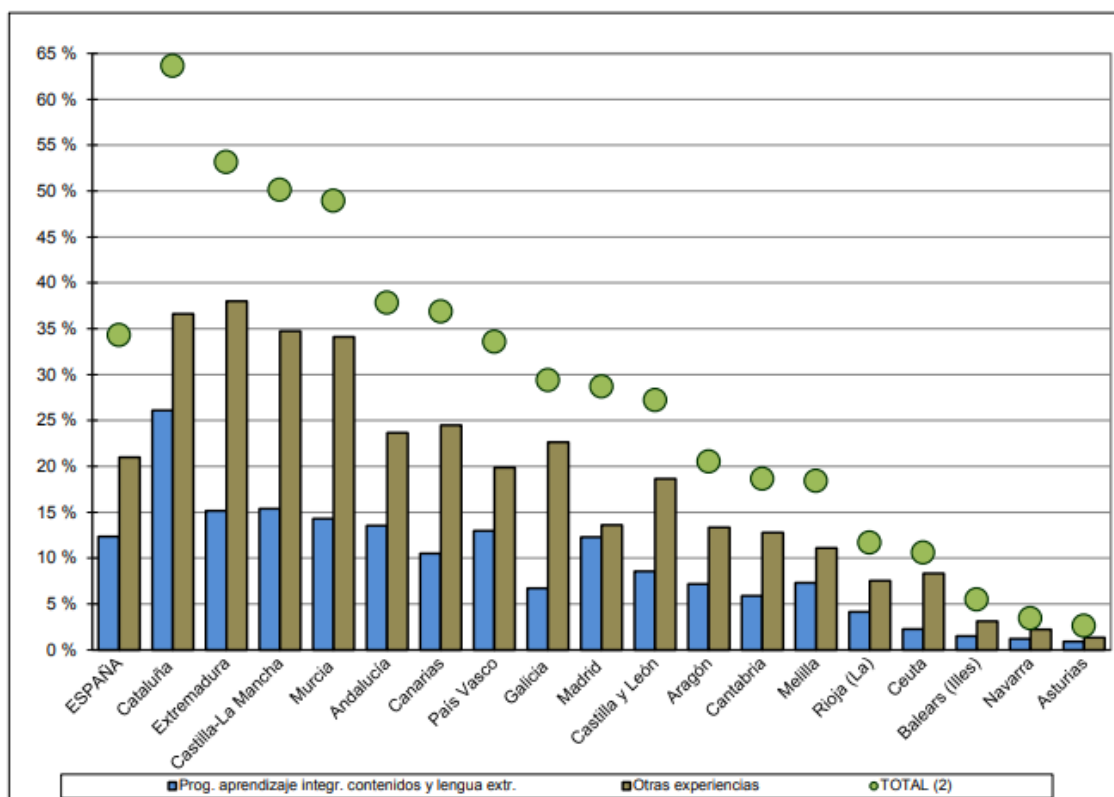
**E3.8. Porcentaje de alumnado de E. Primaria (1) que participa en experiencias que utilizan una lengua extranjera como lengua de enseñanza. Curso 2017-2018**



Graph 2. From: *Las cifras de la educación en España. Curso 2017-2018*

Graph 3 and Graph 4 show the percentage of students who participates in experiences which use a foreign language as a key language in a content subject in Secondary education.

**E3.9. Porcentaje de alumnado de ESO <sup>(1)</sup> que participa en experiencias que utilizan una lengua extranjera como lengua de enseñanza. Curso 2012-2013**



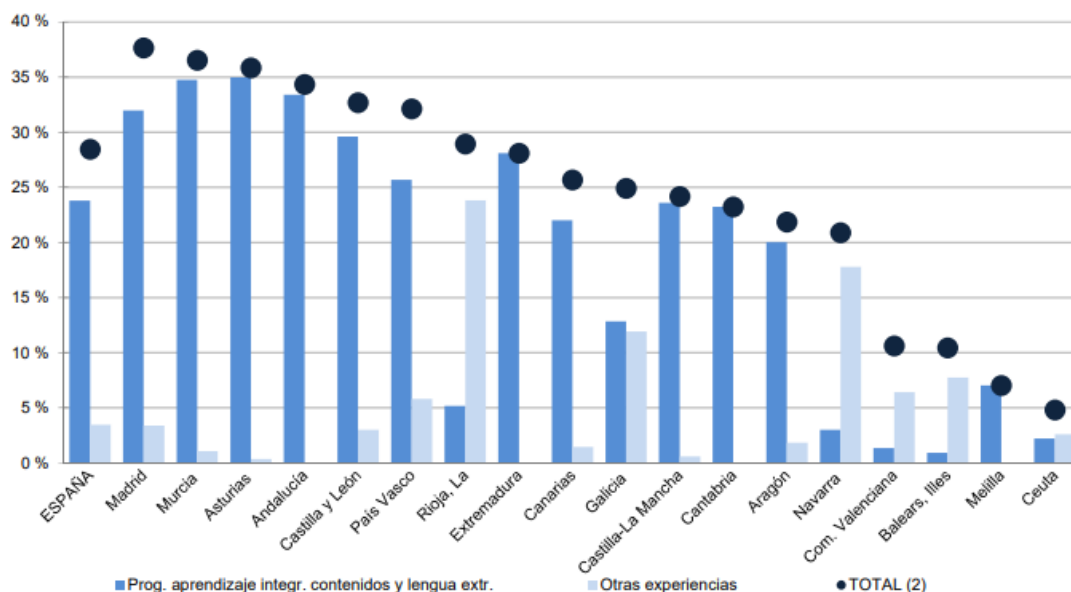
Graph 3. From: Las cifras de la educación en España. Curso 2012-2013

First of all, as the graph reflects, there is a decrease in percentage compared to Primary Education in both school years.

The highest percentage in Graph 3 (2012-2013 school year) is around 25% in Catalonia whereas in Primary Education in the same school year is 45%, ten points more. I am analysing the data from the CLIL programme development, but if the graph is observed, during that school year, the number of 'other experiences' was highly superior.

In Graph 4 (2017-2018 school year), is Asturias the autonomous community with the highest percentage, which is also 35%. In comparison, the highest percentage in Primary Education in the same school year, is around 55%, twenty points more. As a conclusion, if both graphs are compared, there are communities which have improved their percentages, such as Andalusia.

**E3.9. Porcentaje de alumnado de ESO (1) que participa en experiencias que utilizan una lengua extranjera como lengua de enseñanza. Curso 2017-2018**



Graph 4. From: Las cifras de la educación en España. Curso 2017-2018

## 2.2. CLIL Programme

### 2.2.1. Origin of CLIL Programme

In order to know the origin of CLIL, we have to go throwback until the 1990s when Content and Language Integrated Learning emerges as a strategy to solve the problem related to languages in Europe.

As I said before, Europe established that all European citizens must be proficient in three European languages, which means two foreign languages and the mother tongue. In addition, in Europe it was needed to end with failures obtained in this field. It is what Marsh (2002) terms the “delivery gap” between foreign language curricula and foreign language attainment:

There is a broad consensus within the European Union that a delivery gap exists between what is provided in foreign language education, and outcomes in terms of learner performance. Targets for requisite foreign language competencies are not yet being reached (p.9).

CLIL programme has its predecessor in Canadian immersion programmes and North American bilingual teaching models (Content-based Instruction or CBI).

As Perez Vidal (2007) underlines:

Within the background of similar experiences in Canada and USA, European applied linguistics and agencies in the 90s started to employ bilingual education as the umbrella term of a new approach to education, which today I would rather label a multilingual approach (p.39).

This approach started with subjects such as History, which was taught 50% of a new foreign language and the remaining 50% in the students' mother tongue.

With regard to the origins of CLIL in Europe, there were a large number of programmes, methodologies and projects created to integrate different languages in teaching. The BILD and ALPME projects, the ELC network, the CLIL compendium or the TICCALS and CDI-BIT are just a few examples of the previous steps of CLIL programme. They were set up in different countries at primary, secondary or tertiary levels of education.

Nevertheless, although the described approaches have succeeded, many authors have identified the deficiencies that immersion programmes present. It is at this time that bilingual education takes on a new dimension and broadens its horizons. Beginning in 1970, bilingual education became a convenient and more accessible reality for all sectors of the population.

A fundamental and necessary conception must be developed widely: the simultaneous teaching-learning of language and content (Mehisto, Marsh, Frigols, 2008).

With everything initially stated and this idea on the horizon, CLIL begins to acquire relevance and erect itself as an alternative to existing models. Unlike the previously described approaches, the term CLIL (1994) involves a link between the teaching of language and content, obtaining clearly significant learning.

As reported by Coyle, Hood and Marsh (2010), the term CLIL was implanted in order to give a name to those teaching processes that develop from the use of a foreign language. In addition, Coyle (2009) highlighted that CLIL methodology brings together all the knowledge in which the language used and the content addressed are learned transversally. In other words, as we communicate in the foreign language, we will be promoting another learning related to a specific subject. Furthermore, Coyle et al. (2010) address that the term CLIL was implanted in order to give a name to those teaching processes that develop from the use of a foreign language. They also added that CLIL is a dual-focused educational approach. That

means that another language is used to teach both content and language in the educational process.

I would like to summarise what CLIL has been in the education context until these days with a quote from Marsh and Frigols, since as they considered: “CLIL was a catalyst for change because it provided teachers with considerable opportunities for re-thinking educational practice and reaching out for an upgrading of performance” (Marsh & Frigols, 2007)

### ***2.2.2. Advantages and disadvantages***

There are numerous advantages that we can find in this programme. I will detail the most relevant ones below.

In words of Lasagabaster (2009) CLIL presents a constructivist approach. This is for me a first advantage of this method. It encourages flexibility and the construction of meaningful, linear learning, based on previous learning knowledge. This avoids and reduces the levels of anxiety and nervousness of the students when learning a new language. This teaching is a gradual process that benefits the motivation of the students.

The CLIL programme also contributes to the development of different competencies in students, one of them being the multicultural dimension. We live in a globalised world that needs its inhabitants to develop greater intercultural competence. Through this programme, students prepare for this global and international life.

Likewise, numerous studies show that students, who, in their educational process, enjoy CLIL experiences, develop a higher cognitive and communicative level as well as greater social skills, losing the panic to communicate in a language different from their mother tongue.

On the other hand, as any method or programme, CLIL has also difficulties or disadvantages when teachers try to develop it at school.

Firstly, CLIL is a very different approach if we compare it to the traditional teaching of English as a second language, which involves organizational changes.

The main difference, as we have already seen, is that the teachers of foreign languages are not responsible of teaching, but the experts in the other curricular subjects are in charge of using the English language throughout the teaching-learning process. In my view, the biggest disadvantages are in the teaching team.

For example, training for teachers is sometimes insufficient and they do not have the necessary resources, supports or materials. This leads to other difficulties such as the need for good teaching coordination and the design of an evaluation system that considers not only the content but also the language.

Teachers acknowledge being unsure when driving this methodology (Linares and Morton, 2017). Another disadvantage is perhaps the workload; teachers must maintain the usual learning rhythm. CLIL does not allow reducing the content of a subject or lowering the level due to the fact that it is taught in English, so both teachers and students must make a much greater effort to prepare classes and bring the subject up to date.

### **2.3. Multiple Intelligences Theory**

School has the arduous task of developing in the students beyond the reading and writing abilities, since it must transmit concepts, organise them in knowledge networks and promote their critical reasoning.

Gardner considered the school difficult, since the content of the different curricular disciplines are presented in ways far removed from the notions that the students have.

Much of the material presented at school is strange to many students, if not useless. Some of the notational systems, concepts, structures, and epistemic forms are not easily mastered, especially by students whose intellectual strengths may lie in other areas or approaches (Gardner, 2002, p.154).

Gardner had the need to find a solution and a pedagogical justification for the problem he saw in school, thanks to advances in cognitive awareness; he presents the existence of more intelligences than the only known one, specifically eight different ones.

A review of recent works in neurobiology has again pointed to the presence of areas in the brain that correspond, at least roughly, to certain forms of cognition; and these same studies imply a neural organization that is consistent with the notion of different modes of information processing (Gardner, 1994, p.60).

It is in this way that we shape our cognitive development, combining the different intelligences, using them in a personal way according to interests, concerns or needs.

Once the origin of Gardner's thought for the elaboration of the theory has been understood, it is necessary to know what are those eight different intelligences that Gardner proposes, which is framed within his Multiple Intelligences Theory and which I will go in depth in the following subsection.

1. **Linguistic intelligence**, related to the command of the language, of the use of words. They think in words and organise their life using linguistic skills.
2. **Logical-mathematical intelligence**; based on problem solving, on logic. They are organised through reasoning.
3. **Visual-spatial intelligence**, related to orientations, planes, perspectives. They are mainly organised in images.
4. **Musical intelligence** refers to the good use of melody, rhythm, for musical compositions. These people do it through rhythms and melodies.
5. **Naturalistic intelligence**, such as the ability to recognise species in nature. People, who master this intelligence, meditate attending to nature
6. **Interpersonal intelligence**, which introduce the ability to empathise with people. These people generally think by transmitting ideas, they like to lead and relate to other peers.
7. **Intrapersonal intelligence**, which focuses on the ability to know yourself. They are organised according to three premises; your needs, goals and feelings.
8. **Body-kinesthetic intelligence**, referring to the management of both the body and other objects. These people think based on bodily sensations.

Despite not initially becoming a theory supported by his field of work, Gardner's theory served as the basis for new pedagogical theories, which put aside the IQ and are concerned with the knowledge of the predominant intelligence within the eight that he proposed.

However, Gardner (1994) in the prologue of his work Structures of the mind stated:

I thought of it primarily as a contribution to my own discipline of developmental psychology and, more generally, to the cognitive and behavioural sciences. He wanted to broaden notions of intelligence to include not only the results of

written tests but also the discoveries about the brain and sensitivity to various human cultures. Although I discussed the educational implications of the theory in the final chapters of the book, my focus was not on the classroom. (Gardner 1994, p. 3)

Undoubtedly, his theory is an inclusive theory, nothing exclusive, which considers personal abilities beyond the only intelligence known so far. It breaks with the pre-established and gives intelligence more value, considering the different human capacities. In Gardner's (2002) own words:

Students with greater strength in the spatial, musical or personal spheres may find the school more demanding than students who coincidentally possess the combination of linguistic and logical intelligences that allows them to maintain a cordial relationship with the text (Gardner 1994, p.154).

This situation occurs in the classroom on a daily basis and it is a mistake that the teacher must correct reaching the particular areas of all the students. Several authors support the use of this theory in inclusive education previously considered as special.

When the regular curriculum includes the entire spectrum of intelligences, the referrals to special education classes decrease [...] When the regular classes are more sensitive to the needs of different types of students, through learning programmes, the need for specific classes will decrease. (Armstrong, 2006, p.198).

The application that inclusive education makes of this Theory of Multiple Intelligences will be a reason for study and use in this thesis. With this theory, it is shown that the teacher should not seek to increase the IQ of the students, but rather to know what intelligence prevails in each student, what is of interest to each one of them and only in this way the teacher will achieve the highest achievements. In this way, the teacher knows how the students reason, how they think, with what they relate to what they are hearing in the classroom, thus causing the connection with their previous knowledge to establish meaningful learning. As Armstrong (2006) explained, the teacher's objectives have to go one point further and seek not only better results but also the improvements of many abilities.

“The teacher can spend most of his time serving the individual needs of students, but from the regular classroom, and focusing on special multi-intelligence activities to achieve educational results” (Armstrong, 2006, p. 200).

When the teaching programmes taught are analysed, it is observed that there is a concentration of linguistic and logical-mathematical intelligences, giving minimal importance to the other possibilities of knowledge. The Multiple Intelligences Theory is not the only element that organises the classroom; it cannot be assumed that only through this theory can the classroom programmes and curricula be established. It is important to note here that this theory is born as a support to these organization programmes and classroom procedures, from the curriculum to seek more significant learning in students.

I will use the following research to analyse the different intelligences. A study of logical-mathematical thinking from multiple intelligences framework (Ferrándiz, C., Bermejo, R., Sainz, M., Ferrando, M., & Prieto, M. D. , 2008). This work is focussed on two main purposes:

- a) Studying the mathematical-logical reasoning of a sample of Preschool and Primary education school.
- b) Studying the relationship between logical-mathematical intelligence and academic intelligence.

Gender and age differences are taken into account. The sample in this research was two hundred and ninety-four students (aged 4 to 8) from three different schools in Murcia and Alicante. To analyse the research, they organised some activities to assess multiple intelligences, particularly linguistic, logical-mathematical, spatial, bodily kinaesthetic, musical and naturalistic intelligence. On the other hand, they used also the BADyG (Battery of Differential and General Aptitudes) to assess the academic intelligence.

I will comment below how each of the intelligences mentioned above will be evaluated.

### ***2.3.1. Linguistic intelligence***

Perhaps this intelligence is, without being sought, the most stimulated of all since both oral and written expression are presented daily in the tasks of the students. However, the subjects can be presented in very different ways that allow the student

to assimilate them based on their abilities and taking advantage of their strengths and not only focused on the two main intelligences, logical- mathematical and linguistic.

As Ferrándiz, C. & Prieto, M.D (2001) stated, linguistic intelligence is the competence to clearly use oral and written language skills. It includes aspects related to the structure of language and sounds, their meanings and their practical applications. (Ferrándiz, C. & Prieto, M.D, 2001, p, 64)

People who have a higher skill in this skill are usually good at defining and explaining, they love reading, creating stories, and talking, as people should be calm and reasonable. This intelligence is related too with the production and communication of grammatical sentences.

### ***2.3.2. Logical-mathematical intelligence***

Some studies confirm that for Piaget logical-mathematical intelligence is framed from the manipulation of objects to the development of the ability to think about them using concrete and, later, formal thinking. It is true that thanks to the works of Piaget, logical-mathematical intelligence is one of the intelligences with a strong theoretical foundation.

The origins of this form of thought can be found in a confrontation with the world of objects, because in the confrontation of objects, in their ordering and rearrangement and in the evaluation of their quantity, the child achieves his initial and more fundamental knowledge about of the logical-mathematical field. (Gardner, 1983 p. 108)

The characteristics of someone who masters this intelligence can be summarised in: they ask many questions, they are good at solving puzzles, they like to experiment as well as looking for analytical and numerical models in their daily routine and they usually try to make connections using information that they already know. Using numbers and logic to solve problems are one of their numerous strengths, they are also good searching for details and solving mysteries or keeping things tidy.

### ***2.3.3. Visual-spatial intelligence***

The visual-spatial intelligence assessment is carried out in the previous research in two sessions with the following organised activities: creating a sculpt, drawing an

organism, drawing a person and drawing a fantastic animal. The following skills are intended to be evaluated: representation (capability to create detectable symbols of general objects, for example, humans, vegetation, houses, animals, as well as the ability to coordinate these elements jointly); exploration (ability to reflect in plans, representative drawings of the child and in the use of artistic expression materials, flexibility, creativity and inventiveness); and artistic talent (consist of using art elements to express feelings, cause some effects, and embellish some pieces of art)

People with a highly developed level in this kind of intelligence, improve their imaginations through manual arts, puzzles, or mind maps. Instead of reading they prefer to look at a diagram or picture, they are good at sketching, sketching, or diagrams, imagining in 3-D, they like photography, and they tend to have a good sense of direction.

#### ***2.3.4. Musical intelligence***

Musical intelligence is perhaps on many occasions relegated to the background, not considering it as important as other intelligences such as linguistics. However, students who develop this intelligence in a more advanced way must be able to enjoy content and objectives in the classroom that enhance it.

Musical intelligence was assessed in the research with the activity of "singing". The objective is to evaluate the following skills: sensitivity to pitch (capability to recognise beats between short and long notes and keep the beat in a song or melody); rhythm (capability to indicate the correct number of musical notes, implies ability to identify between short and long notes, maintaining the regular time of the song or measure and clarity or ability to sing notes with an adequate rhythm); and musical ability (exceptional competence to sing a piece with appropriate melody and rhythm, implies capacity for loquacity, fluency and articulateness)

#### ***2.3.5. Naturalistic intelligence***

Naturalistic intelligence is one of the eight intelligences postulated by Gardner in his theory of multiple intelligences; it was really a late incorporation. As Gardner (2000) said, it is related to the comprehension and sensibility for nature environment. People with a predominance of this type of intelligence have a special sensitivity towards nature: they understand how it works, they are able to distinguish and classify living and inert beings according to characteristics, and they see an

ecosystem as a wonderful and balanced clockwork machine in which everything it plays an essential role. They are curious people, they question how things work, they make hypotheses and they love to test those hypotheses and do experiments

Two activities are used to evaluate this intelligence: one, "discovery"; another, "why some objects float, and others sink". All aimed at evaluating the following skills: detailed observation (capability to analyse details); identification of relationships (ability to establish cause-effect relationships between facts, of similarities and differences between objects, implies establishing classifications); formulation and testing of hypotheses (ability to raise questions, detect gaps and solve them using logical reasoning); experimentation (competence related to try and examine objects and observe different uses and possibilities of working with them) and curiosity in tasks related to discover the natural world (the level of knowledge and motivation for the natural world is valued). (Ferrándiz, Bermejo, Sainz, Ferrando, & Prieto, 2008, p.215).

### ***2.3.6. Interpersonal intelligence***

This intelligence enables us to relate and interact with others. It has an essential role in the capacity for empathy since it supposes the ability to read and interpret emotions in others, as well as adapting our behaviour to the signals we interpret from the people with whom we interact.

The other personal intelligence turns outward, to other individuals. The core capacity here is the ability to notice and make distinctions among other individuals and, in particular, among their moods, temperaments, motivations, and intentions. Interpersonal knowledge permits a skilled adult to read the intentions and desires—even when these have been hidden—of many other individuals and, potentially, to act upon this knowledge. (Gardner, 1995, p. 253)

As Gardner indicates, this intelligence has to do with personal relationships. People who master this intelligence prefer to work in groups that individually, lean on others to resolve their conflicts. They are good in friendly and supportive relationships. People choose them to establish conversations, dialogues.

### ***2.3.7. Intrapersonal intelligence***

This intelligence implies the competence of identifying, understanding and processing our own emotions. Someone with this specially developed intelligence implies that the person is able to be aware of his emotions and understand what they involve in his thoughts and attitudes. They are able to discriminate among feelings, to label and analyse them to know better about one's behaviour.

This intelligence is related directly to knowing oneself. Of knowing how to connect with your inner self. They are those people who know how to recognise their strengths and difficulties. They do not succumb to social pressure and it could be said that they are capable of deciding on themselves.

### ***2.3.8. Bodily-kinesthetic intelligence***

In the aforementioned research, this intelligence was evaluated using the activity known as "creative movement". Skills such as sensitivity to rhythm were analysed; expressiveness (how to manifest moods and emotions using the body), body control (ability to maintain balance); and generation of ideas through movement (ability to invent new movements using the body and the space).

People who have a highly level of bodily- kinesthetic skills are guided through movement and touch; they have the ability to enjoy various sports and physical activities. They have a great command of their coordination, balance and body control. They are usually good at sports, acting or dancing, they usually like to be in continuous movement and they tend to do it if possible, when learning the tasks that involve practice are more effective for them, they enjoy interacting, they have good eye-manual and small coordination.

As a conclusion of the study, it can be said that intelligences, in general, and logical-mathematical reasoning, in particular, are valued with contextualised tests, with rich and evocative materials, which include a wide set of domains and more open activities than those collected in psychometric evaluations and which are also less prescriptive.

This type of evaluation allows educators to get to know their students better, recognizing the great diversity of abilities present in the youngest children, diverse learning styles are valued, differences in talents, abilities, skills, attitudes and work habits are accepted. In Gardner's assessment tasks, the child who thinks creatively and imaginatively can stop to think more deeply about an issue without being

pressured not to work fast enough to finish the test. This model allows to establish connections between the classroom and the community in general.

## **2.4. Combination between the Multiple Intelligences Theory and CLIL programme.**

### ***2.4.1. Background references***

To begin this chapter, I am going to start from different theses, articles and previous researches that have previously linked CLIL with the Theory of Multiple Intelligences. There are many researches and theses that include this collaboration, its benefits or drawbacks.

First, I will mention Morilla (2014), a comparative study of the psycho-pedagogical factors that operate in the acquisition of the oral communicative competence of the foreign language, consisting of the integration of multiple intelligences and emotional intelligence in bilingual education.

The general objective of this research work was the investigation, through the comparison of various educational programmes, on the success of methodological principles that support the acquisition of communicative competence in the classroom, specifically, those linked with multiple intelligences and emotional intelligence.

In this study, contexts in which the integration of multiple and emotional intelligences do not take place in a previously planned and organised manner have been studied, specifically the CLIL educational bilingualism model and the teaching of regular or traditional foreign language English have been analysed. This research was carried out in different schools where the aforementioned methodologies are taught at the 1st and 4th grades of Primary Education.

One of the objectives of this research was to review the methodology and resources used in teaching English as a foreign language, and its implementation in a school, as well as reflecting on the factors that most favor oral communication in the classroom.

The second objective is to investigate the benefits of applying the CLIL model of educational bilingualism, in accordance with the provisions of the Plan for the Promotion of Multilingualism of the Andalusian Government, and its implementation in the bilingual school.

In this investigation they tried to answer the following questions. The first question asked refers to whether students who have followed a methodology in which multiple intelligences are used in a sequenced and organised way acquire a higher level of linguistic competence in English than students who do not use it. In the second research question, they try to verify if the methodology that integrates emotional intelligence in its planning stimulates the learning of the linguistic competence of L2. All of the above leads to the third question, in which they ask if there is a clear difference in the level of oral linguistic competence that students obtain according to the context, the educational system and the methodology used. Finally, the fourth question that they postulated in the research aims to verify whether the study of the comparison between the three educational systems and their methodological proposals will allow them to identify psycho-affective factors (for example, self-esteem and motivation) as some of the psycho-pedagogical factors that they have more influence on the learning of linguistic competence in L2.

Once the study was carried out, the data shows that the integration of multiple intelligences in bilingual education, if carried out in an organised and ordered manner, will motivate a higher level of knowledge of oral communicative skill in the foreign language than other methodologies that do not incorporate them in their educational programme.

The integration of intelligences leads the student to establish connections with other areas, which is a very important factor in bilingual education in general and in the improvement of oral abilities in both the English and non-linguistic areas in the that the English language is used as a vehicular language for learning. (Morilla, 2014, p.547),

#### ***2.4.2. Advantages and Disadvantages***

It goes without saying that implementing this theory in the current methodology will not solve each and every one of the obstacles and difficulties, but it can help to solve and improve certain aspects. For that reason, the pros and cons of this symbiosis relationship should be analysed.

The main advantages are obvious; all the students would feel motivated, since the class would be focused on a point of view that would be interesting and attractive for all of them, covering the interests of the whole group. By paying more attention the

content and language learned will be greater. If they are following the class the behaviour should not be bad, so the teacher will not have to raise their voices or attract their attention. With this theory, students will achieve better self-recognition that will allow them to improve and personalise their study techniques.

On the other hand, there are also disadvantages. Applying this theory in a real class would be a great workload for the teacher, since they should work hardly, suggesting activities, tasks or exercises that cover with the Multiple Intelligences Theory, with the eight intelligences. For this reason, the more coordination and collaboration the school establish, the better results and outcomes the students will have.

Another disadvantage that can be found is the lack of information and resources that could help to elaborate materials which combine CLIL and Theory of Multiple Intelligences.

### **3. DIDACTIC PROPOSAL**

#### **3.1.Context**

My school is located in a small city of Andalusia, Fuengirola in Málaga. I am the teacher of a group of students who are in the 2nd grade of Primary Education. This group is made up of 23 students, 14 boys and 9 girls with ages between 6 and 8 years old. It is a very participative and active group of students. They are sitting in groups of four or five.

The school has more than 900 students and 70 teachers distributed in kindergarten, primary and secondary education. Each primary and secondary course has 3 lines of education. It is a bilingual school with teachings of several subjects in English. In the neighborhood of the school different races and cultures coexist and therefore it is a multicultural school.

Its socio-economic level is also diverse, we find in the school students with different needs, although it is true that parents whose socio-economic level is low take care that their children have the necessary school supplies. The parents of the students of this school are mainly dedicated to the service sector, although it should be noted that a large majority of mothers work at home.

### **3.2. Methodology**

This unit tries to develop knowledge in students through Multiple Intelligences Theory to facilitate its acquisition by all students. These aspects will be worked through tasks that require putting into practice strategies to access information, carry out experiments and representations on the elements studied, carry out research aimed at the correct use of some materials in everyday life, carry out small debates aimed at confronting ideas and opinions. on the elements studied and experienced as well as activities that promote each of the different intelligences.

Knowledge of living beings in the environment will be developed, differentiating them between animals and plants, knowing their structure and the criteria that imply the classification of the biotic components of an ecosystem.

These aspects will be worked through various tasks that require the use of different skills.

Different representations will be held, and the values of responsibility, care and respect for the environment and living beings will be enhanced. It is about developing the skills that most prevail and help students acquire knowledge.

### **3.3. Practical application of the integration of Multiple Intelligences Theory in a lesson plan with CLIL methodology.**

#### **3.4. Didactic Unit**

In this unit, students will explore animal habitats, learning about the animals living there and their adaptations. Firstly, children learn about different vertebrates, their body features, abilities, and diets. They then explore terrestrial and aquatic habitats, learning which animals live there and why they are suited to them. In addition, they will explore the topic of endangered animals in their geographical area, their habitats, and how they can be helped.

##### **3.4.1. Objectives**

As the curriculum of Primary Education in Andalusia explains, this unit work with some of the general objectives in this area.

| OBJECTIVES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NATURAL SCIENCE |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>O.CN.1.</b> Use the scientific method to plan and carry out simple projects, devices, through observation, hypothesis planning and practical research, in order to draw conclusions that, at the same time, allow reflection on their own learning process.                                                                                                                                                                                                                                                    |                 |
| <b>O.CN.2.</b> To analyse and select information about the elemental properties of some materials, substances and objects and about facts and phenomena in the environment, to establish various hypotheses, checking their evolution through planning and carrying out projects, experiments and everyday experiences                                                                                                                                                                                            |                 |
| <b>O.CN.4.</b> To interpret and recognise the main components of ecosystems, especially in our autonomous community, analysing their organization, their characteristics and their relationships of interdependence, looking for explanations, proposing solutions and acquiring behaviours in the daily life of defence, protection, recovery of ecological balance and responsible use of energy sources, by promoting values of commitment, respect and solidarity with the sustainability of the environment. |                 |
| <b>O.CN.5.</b> To know and value the heritage of Andalusia and actively contribute to its conservation and improvement.                                                                                                                                                                                                                                                                                                                                                                                           |                 |
| <b>O.CN.8.</b> To use information and communication technologies as a learning tool: to obtain information, share knowledge and value their contribution to improving the living conditions of all people, as well as preventing risk situations derived from its use.                                                                                                                                                                                                                                            |                 |

In this unit, students will be able to acquire different general and specific objectives.

| GENERAL OBJECTIVES                                                                               | SPECIFIC OBJECTIVES                                            |
|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| 1. To know different types of vertebrate animals: mammals, birds, reptiles, fish and amphibians. | - Describe the basic needs of living things.                   |
| 2. To differentiate the main characteristics of habitats.                                        | - Recognise the diversity of the animal kingdom.               |
| 3. To being aware about the endangered species.                                                  | - Describe which animals live in each type of habitat.         |
| 4. To promote respect and interest in living beings.                                             | - Describe some habitats and the animals that live in them.    |
|                                                                                                  | - Understand the impact human actions have on the environment. |
|                                                                                                  | - Classify different animals as carnivores,                    |

|  |                                                                                                                                                                                                      |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>herbivores or omnivores.</p> <ul style="list-style-type: none"> <li>- Recognise the importance of working together.</li> <li>- Understand instructions and follow the rules of a game.</li> </ul> |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 3.4.2. Contents

General contents of this area which appear in the Curricula of Primary Education are also developed in this unit.

#### - BLOCK 1: "INITIATION TO SCIENTIFIC ACTIVITY"

1.5. Acquisition of abilities in managing different strategies to search for, analyse and use information.

1.7. Interest to analyse experiment and obtain conclusions.

1.10. Interest to pose questions that allow obtaining relevant information on the topic studied.

1.11. Demonstration of the results orally and in writing.

1.12. Individual and group work planning.

1.13. Interest to work with your group in equality and respect towards all its components. Development of empathy.

1.14. Acquisition of communicative skills and strategies to obtain an agreed product in a democratic manner.

1.15. Acquisition of scientific thought.

#### - BLOCK 3: "THE LIVING BEINGS"

3.2. Examination of different forms of life. Recognition, denomination and distribution of living beings.

3.3. Direct and indirect observation of animals and plants. Identification, naming and classification according to observable elements.

3.4. Classification of animals and identification of the main characteristics and functions

3.5. Carrying out outings that allow in situ observation of animals and plants.

3.7. Inspection of the relationships between humans, plants and animals.

3.13. Development of habits of respect and care for living beings.

3.16. Use of technological means for the study of living things.

In relation with this unit, students are asked to acquire these specific contents.

| SPECIFIC CONTENTS                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>1. Main groups of animals.</li> <li>2. Habitats (aquatic, desert, tropical forest and savanna)</li> <li>3. Adaptation of animals.</li> <li>4. Endangered species.</li> <li>5. Respect for any organism.</li> <li>6. Searching and selection of information using information and communication technologies.</li> <li>7. Presentation of conclusions.</li> </ol> |

### 3.4.3. Sequence of activities

I will organise the first unit of Natural Science subject in the 2<sup>nd</sup> grade of Primary Education in which I will combine Multiple Intelligence Theory and CLIL.

The activities cover the eight different intelligences in order to facilitate the comprehension of the content in English.

For each unit, 8 different activities will be developed to establish a general idea about the benefits and inconvenient of combining both programmes.

As it is presented, in the teaching sequence there are different activities classified into warm up, development and closure activities which imply the eight intelligences.

| 1 <sup>st</sup> SESSION              |                                                                                                                                   |                                          |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| DIDACTIC CONTENTS                    |                                                                                                                                   |                                          |
| COMPETENCES                          | OBJECTIVES                                                                                                                        | GROUPING                                 |
| know<br>Remember<br>Analyse<br>Apply | <ul style="list-style-type: none"> <li>- To recognise the diversity of the animal kingdom.</li> <li>- To recognise the</li> </ul> | Individual work<br>Groups<br>Whole Class |

|        |                                                                                                                                                                                                  |  |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Create | <p>specific characteristics of each group of vertebrates.</p> <ul style="list-style-type: none"> <li>- To identify which group vertebrates, belong to based on their characteristics.</li> </ul> |  |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

## TEACHING SEQUENCE

### WARM UP 15 MIN

#### How to promote musical intelligence in CLIL lesson?

We are going to start the session with a song. A short song is a really good way to work with the musical intelligence. There are children who are keen on listening to music, so they find easier to remember or learn something in a song.

A short English song is a tool that teachers have to use to improve this intelligence. Here you can find an example:

Song from: <https://www.youtube.com/watch?v=yneDnU3sk>

*We are the vertebrates big and small  
Some of us are long, some of us are tall  
Some of us have feathers and fly through the air  
And some of us live on the land and have lot of hair*

*We are the vertebrates fat and thin  
Some of us have scales  
And some have moist skin  
Some of us use lungs to breathe  
Some of us live in the sea  
And some live in the hills.*

I divided the lyrics of the song into two parts, each part for a lesson, in order to facilitate students to learn by heart the lyrics.

### **How to promote interpersonal intelligence in CLIL lesson?**

To promote this intelligence, we are grouping the class into pairs.

This intelligence work with social skills with the ability to talk with someone, work or play with a team, so we are going to promote the conversation between peers by playing a game.

### **MODELING 20 MIN**

In this part, students are going to work with different intelligences.

For example, we are going to design a big poster using the images related with vertebrate animals developing the visual-spatial intelligence.

Many students have photographic memory, and therefore, as teachers, we should improve the digital resources and images, posters, pictures to establish another way of learning.

Once you have got the images, you must work with them to elicit previous knowledge. In groups, ask pupils to answer the following questions:

- 1) *What kind of animal can you see in this picture? Has this animal got a backbone? What other parts has it got?* Request students to write a sentence describing the animal in the picture.
- 2) *What do humans get from this animal?* Request students to describe a product we get from another animal.
- 3) *Where does this animal live?* Request students to write a line describing the desert.
- 4) *What kind of animals live in this habitat?* Request students to write a phrase about an animal that lives in a river.
- 5) *Could a camel live in this habitat?* Request pupils to write a phrase about an animal which is adapted to cold environments.
- 6) *Do you know the names of any of the animals in this picture?* Explain to pupils that a predator is an animal that eats other animals. Then, ask pupils to write a sentence about a predator that lives in the savannah.

With these different questions we are encouraging students to talk, to discuss with other so we are promoting the linguistic intelligence and interpersonal intelligence again. It is assumed that naturalistic intelligence will be promoting during the whole term since all the activities have as topic issues related with the nature, as in this unit we work with animals, habits, etc.

After that, you should encourage students to stick their pictures in their posters by group of five.

Finally, you must ask each group to present their poster at the front of the classroom, one group at a time.

Ask the rest of the class to ask them questions about their poster, and to suggest any other information they could have included.

#### **CLOSURE 15 MIN**

Finally, to conclude the session, once each group has presented their poster, ask to the students: *What did you like about their poster? What did you learn?*

We finish the lesson with a period of reflection; we want students to reflect, to analyse themselves, how they have felt, what are they thinking?

With these questions, we are promoting intrapersonal intelligences, students reflect by their own.

When you encourage students to think, to create something or to reflex about something, they are taking into account a large amount of intelligences so it could be said that this is a very complex task.

Once each group has presented their poster, ask to the students: *What did you like about their poster? What did you learn?*

#### **ASSESSMENT**

As an example:

STD.3.1. Use, appropriately, the vocabulary corresponding to each of the

content blocks.

STD.4.2. It makes proper use of information and communication technologies as a leisure resource.

STD.4.4. Presents the works in an orderly, clear and clean manner, on paper and digital media.

With this table, I show at what level the activities proposed in this session work the acquisition of the different multiple intelligences. This table is organised in 1 to 5 levels, being 1 little or nothing worked and 5 fully worked in the proposed activities.

| Multiple Intelligences | Level of development |   |   |   |   |
|------------------------|----------------------|---|---|---|---|
| Linguistic             | 1                    | 2 | 3 | 4 | 5 |
| Logical - Mathematical | 1                    | 2 | 3 | 4 | 5 |
| Visual - Spatial       | 1                    | 2 | 3 | 4 | 5 |
| Musical                | 1                    | 2 | 3 | 4 | 5 |
| Naturalistic           | 1                    | 2 | 3 | 4 | 5 |
| Interpersonal          | 1                    | 2 | 3 | 4 | 5 |
| Intrapersonal          | 1                    | 2 | 3 | 4 | 5 |
| Bodily - Kinesthetic   | 1                    | 2 | 3 | 4 | 5 |

## RESOURCES

- Poster
- A3 Paper
- Markers
- Colouring pencils
- Worksheets
- Computer and MP3 player
- Blackboard
- Interactive whiteboard
- Classroom materials:
- Flashcards

- Word cards
- Classroom planning

| 2 <sup>nd</sup> SESSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                 |                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| DIDACTIC CONTENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                 |                                          |
| COMPETENCES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | OBJECTIVES                                                                                                                                                                                                                                                      | GROUPING                                 |
| know<br>Remember<br>Analyse<br>Apply<br>Create                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>- To identify the major habitats in the world.</li> <li>- To classify animals into their habitats.</li> <li>- To identify the main characteristics of some animals based on the adaptation to their habitats.</li> </ul> | Individual work<br>Groups<br>Whole Class |
| TEACHING SEQUENCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                 |                                          |
| <b>WARM UP 15 MIN</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                 |                                          |
| <p><b>How to promote bodily- kinesthesia intelligence in CLIL lesson?</b></p> <p>To start this session, students will be asked to work with their bodies.</p> <p>Students who develop this intelligence, enjoy tasks that involve, they enjoy interacting, they have good eye-manual and small coordination so, in this warm-up activity, students will use their bodies.</p> <p>They are going to use their body to express ideas, and warm up with the previous knowledge.</p> <p>Working with their body is a significant way to develop this kind of intelligence. Students must know how to take advantage of their body, how to move around, express feelings or emotions.</p> <p>For this reason, in this second session we are going to start with an easy game</p> |                                                                                                                                                                                                                                                                 |                                          |

known as “Statues”. In order to review the knowledge and vocabulary from the previous session, students will perform statues depending on the vocabulary the teacher will say to them.

For example, the teacher will give instructions using the second language in English to students.

- Teacher: *So right now, all of you must transform into a vertebrate animal. Any of you remember what is a vertebrate animal?*
- Students: *They must imitate any kind of vertebrate animal, using their bodies.*
- Teacher: *Oh, are you a horse? Can you tell me why a horse is a vertebrate animal? Do you think is it a wild animal or a pet?*

Depending on availability in the school, this activity can be done in the playground. It is a way of animating and motivating students more since it can use a larger space and breaks with the pre-established development of a session, leaving the traditional classroom.

As it is shown, any activity can be completed to develop or work with other intelligences.

#### **How to promote interpersonal intelligence in this activity?**

To promote this intelligence, we are grouping the class into groups.

As I said before, the interpersonal intelligence is promoted through tasks that involve social skills. For this reason, this game also works on this intelligence.

Instead of performing a statue alone, now the students must perform a huge statue, so they need to work together.

Teacher: *Right now, we are going to change the game. You will work together to create the most beautiful huge statue. By groups of 5, you will create your own vertebrate animal and the rest of the class must guess what animal you are performing.*

#### **MODELING 20 MIN**

In this part, students are going to work with different intelligences.

Teacher will introduce a new topic related with habitats. How?

The teacher will use flashcard to present this topic to students. There are many

flashcards that show different kinds of terrestrial and aquatic habitats.

First, the teacher will show them to students.

Teacher: *Do you know what kind of place it is? Who lives here? Have you visited any of these places?*

After repeatedly presenting the different habitats with questions of this type, the teacher should introduce which animals live in each habitat. To do this, the teacher will use different flashcards again.

To check if the students have understood the vocabulary studied, the teacher gives the students the flashcards and asks questions that the students must answer raising their hands with the corresponding flashcard.

### **How to promote logical- mathematical intelligence in this session?**

The students who have this intelligence the most developed stand out in the area of Mathematics and in activities that involve calculation operations.

But nevertheless, it can also be developed in this CLIL class of natural sciences since this student body also excels in other activities related to organization, deduction and logic and should not only be limited to calculation.

Starting from the deduction and the logic, the students must stick the corresponding stickers in an outline or diagram that the teacher will give to the students.

This scheme consists of different gaps in which the different habitats must appear. In the next level, it will appear if those habitats are terrestrial or aquatic and in the last level, they must stick those animals that they believe live in those habitats. This deduction and rationing activity thus work on the development of logical mathematical intelligence in natural science.

Finally, they must present their diagram to the rest of the class. In this way, students will be promoting their linguistic and interpersonal skills.

Encouraging students to talk in public, in front of an audience, make them more confident and give them a high level of confidence and self-esteem. They feel that what they are talking about is important, that they deserve to be heard.

### **CLOSURE 15 MIN**

To conclude the session, students must play a memory game using the

flashcards that they have used before.

They may link the animals with their habitats playing the memory game.

Tell pupils that it's important they pay close attention during this activity. Show them each card again and then stick it face down on the board so pupils can't see what is written on it. Explain that pupils should try to remember what is on each card. Now ask a pupil to show you where one of the habitats is. Once pupils have found all the cards, repeat the activity, but this time ask pupils to find an animal with a particular characteristic and link it with their habitat.

With this activity we are improving the logical – mathematical intelligence since students must deduce, reason, etc.

## ASSESSMENT

As an example:

STD.2.1. Observes, identifies, names and classifies animals in their environment. **(LC)**

STD.2.2. Identifies aquatic animals from freshwater or marine habitats, and recognises the animals that live in the deserts, the rainforests and the savannah. **(LC)**

STD.2.3. Identify animals and their adaptations according to the habitat in which they live (aquatic, desert, tropical forest or savanna).

| Multiple Intelligences | Level of development |   |   |   |   |
|------------------------|----------------------|---|---|---|---|
| Linguistic             | 1                    | 2 | 3 | 4 | 5 |
| Logical - Mathematical | 1                    | 2 | 3 | 4 | 5 |
| Visual - Spatial       | 1                    | 2 | 3 | 4 | 5 |
| Musical                | 1                    | 2 | 3 | 4 | 5 |
| Naturalistic           | 1                    | 2 | 3 | 4 | 5 |
| Interpersonal          | 1                    | 2 | 3 | 4 | 5 |
| Intrapersonal          | 1                    | 2 | 3 | 4 | 5 |
| Bodily - Kinesthetics  | 1                    | 2 | 3 | 4 | 5 |

## RESOURCES

- Playground
- Markers
- Colouring pencils
- Worksheets
- Blackboard
- Interactive whiteboard
- Classroom materials
- Flashcards
- Word cards
- Classroom planning

## 3<sup>rd</sup> SESSION

### DIDACTIC CONTENTS

| COMPETENCES                                    | OBJECTIVES                                                                                                                                                                                                                          | GROUPING                                 |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| know<br>Remember<br>Analyse<br>Apply<br>Create | <ul style="list-style-type: none"><li>- To review the vertebrate and invertebrate animals.</li><li>- To assimilate the different habitats of animals.</li><li>- To be aware of the different endangered species in Spain.</li></ul> | Individual work<br>Groups<br>Whole Class |

### TEACHING SEQUENCE

#### WARM UP 15 MIN

### **How to promote musical and visual-spatial intelligence in CLIL lesson?**

We are going to start the session remembering the song that we learnt in the first session. We can also use different songs related with the same topic as the first session, vertebrate and invertebrate animals.

Here there are other examples that we can use with students after singing the songs. Using TIC and videos are an accurate tool for those who have a high level of visual- spatial skills. In this way, students will have a summary or scheme with the specific vocabulary and tools that students have worked in the previous sessions.

I strongly recommend following the YouTube channel Learning junction as they offer a large number of very interesting videos. In addition, students can play a game to classify vertebrate and invertebrate animals.

Educational video: <https://www.youtube.com/watch?v=KjpGfqqvQ3E>

Educational game: <https://www.youtube.com/watch?v=8wT5dihdt4E>

To finish the warm-up part, students must also review the topic related with the different habitats and the animals which live in each habitat.

To achieve that and following the development of visual-spatial intelligence, we are going to encourage the creativity in students.

First, and as I said before, developing the interpersonal skill, we are going to organise the class into group of five, teacher will give students a piece of paper with the name of one habitat. Students must elaborate a creative draw at the blackboard using colours and flashcard. The main objective is that the rest of the group could guess the habitat. Promoting the creativity at school is essential to the correct development of students.

Children are creative by nature, it is an innate capacity that they possess, and through which they can discover their limitations with reality. Imagination is a powerful force that we can use through which we will have amazing and unique results.

### **MODELING 20 MIN**

In this session the main topic will be endangered species.

To introduce the topic,

Ask pupils: *What wild animals do you know of that live in our mountains and forests?*

Listen to which Iberian Fauna pupils know. Make a list on the board and use the flashcard to facilitate the understanding. Read the list as a class.

- Now ask pupils if they know what the word *endangered* means. Explain that some animals are at risk of dying out, often because of human activities.

As a class, make a list of human activities which pose a threat to animals, such as: *hunting, traffic, deforestation, etc.*

- Explain that wildlife centers can help to protect endangered animals.

- Then ask pupils to look at the second image and ask: *What wild animals do wolves feed on? If wolves had enough food in the forests and mountains, do you think they would attack animals on farms?*

- Write the following words on the board: *wild, farm, carnivore, extinction*. Ask pupils to repeat the words. Then ask them to find the words on the blackboard. In this session, students will do a project with the participation of the family.

Involving the family is an important aspect that school must pursue because students will achieve more positive outcomes.

For this reason, students will become researchers and they must research on internet about a specific endangered species that they choose.

We will use the following worksheet:

### Endangered species



#### 1. Complete the missing information:

Scientific Name: \_\_\_\_\_

Common Name: \_\_\_\_\_

Weight: \_\_\_\_\_

Size: \_\_\_\_\_

Color: \_\_\_\_\_

Place of living, habitat: \_\_\_\_\_

Food: \_\_\_\_\_

Lifespan: \_\_\_\_\_

Population: \_\_\_\_\_

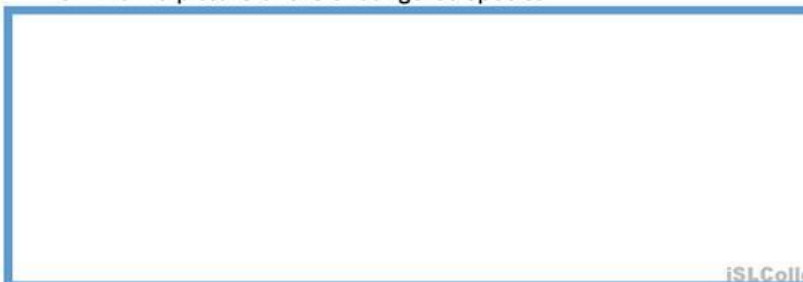
Babies: \_\_\_\_\_

Main threats: \_\_\_\_\_

#### 2. Fill in the gaps using the information above:

\_\_\_\_\_ (\_\_\_\_\_) lives in \_\_\_\_\_. It weighs about \_\_\_\_\_, it is about \_\_\_\_\_ long and \_\_\_\_\_ tall. Its color is \_\_\_\_\_. It eats \_\_\_\_\_ and it can live up to \_\_\_\_\_. It gives birth to/lays \_\_\_\_\_. Today there are \_\_\_\_\_ in the world. It is mainly threatened by \_\_\_\_\_.

#### 3. Draw a picture of the endangered species



iSLCollective.com

Worksheet from: iSLCollective

Encouraging students to become researcher promote their intrapersonal intelligence due to the fact that this activity will be complete with a personal

reflection, in which students must analyse how they have felt, how they think about the endangered species, how they will help these animals, etc.

### **CLOSURE 15 MIN**

To finish this session, students will join in groups of five to become researchers on the NET. They must look for some NGOs which help endangered species and other animals in Spain. They must select one of this NGOs and elaborate a small poster in a A4 paper to present to the rest of the class. With this cooperative and collaborative task, students are improving their interpersonal intelligence, which I consider must be present every day at school.

The teacher can help students to look for the NGOs if they don't find anyone. Here is a short list with some important NGOs in Spain.

- ADDA
- APADAN
- Fundación Oso pardo
- WWF
- Anima naturalis
- AMUS

Once each group has presented their poster, ask to the students: *What ONG do you like the most? What did you learn?*

We finish the lesson with a period of reflection, promoting their intrapersonal intelligences. We can ask some questions as: *What is necessary to have a pet? How should a pet be treated?, What animal would you like to help if you could?*

### **ASSESSMENT**

As an example:

STD.3.1. Use, appropriately, the vocabulary corresponding to each of the content blocks.

STD.4.2. It makes proper use of information and communication technologies as

a leisure resource.

STD.4.4. Presents the works in an orderly, clear and clean manner, on paper and digital media.

| Multiple Intelligences | Level of development |   |   |   |   |
|------------------------|----------------------|---|---|---|---|
| Linguistic             | 1                    | 2 | 3 | 4 | 5 |
| Logical - Mathematical | 1                    | 2 | 3 | 4 | 5 |
| Visual - Spatial       | 1                    | 2 | 3 | 4 | 5 |
| Musical                | 1                    | 2 | 3 | 4 | 5 |
| Naturalistic           | 1                    | 2 | 3 | 4 | 5 |
| Interpersonal          | 1                    | 2 | 3 | 4 | 5 |
| Intrapersonal          | 1                    | 2 | 3 | 4 | 5 |
| Bodily - Kinesthetic   | 1                    | 2 | 3 | 4 | 5 |

## RESOURCES

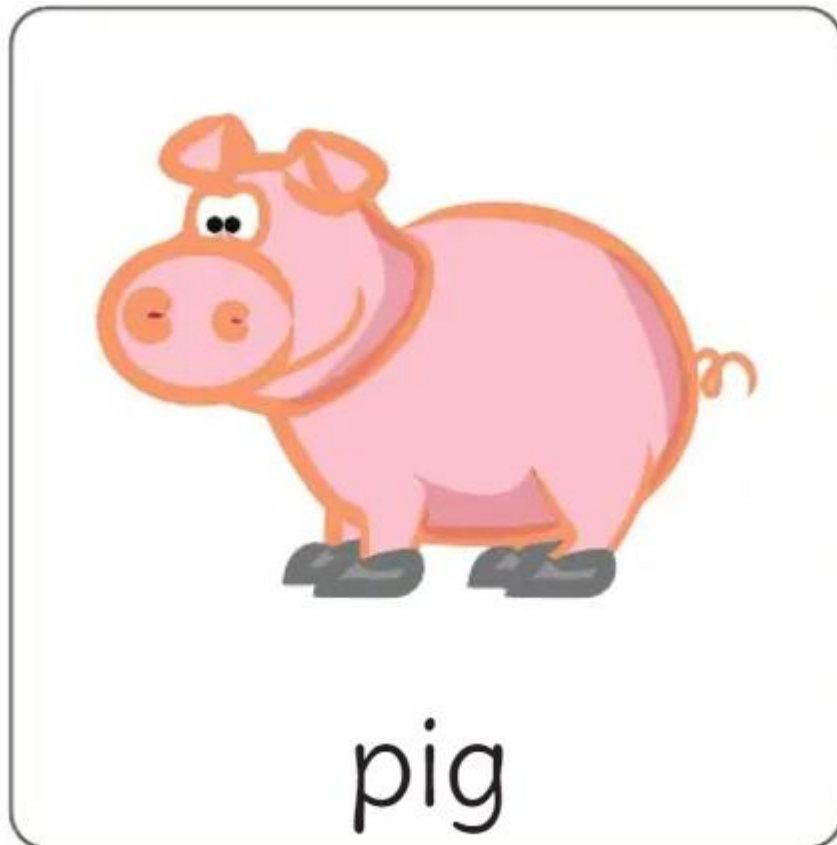
- Poster
- A3 Paper
- Markers
- Colouring pencils
- Worksheets
- Computer and MP3 player
- Blackboard
- Interactive whiteboard
- Classroom materials:
- Flashcards
- Word cards
- Classroom planning

| 4 <sup>th</sup> SESSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                             |                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| DIDACTIC CONTENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                             |                                          |
| COMPETENCES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | OBJECTIVES                                                                                                                                                                                                                                                                                                                  | GROUPING                                 |
| know<br>Remember<br>Analyse<br>Apply<br>Create                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>- To identify the major habitats in the world.</li> <li>- To classify animals into their habitats.</li> <li>- To classify animals into carnivores, herbivores and omnivores.</li> <li>- To identify the main diet of some animals.</li> <li>- To discuss about pollution.</li> </ul> | Individual work<br>Groups<br>Whole Class |
| TEACHING SEQUENCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                             |                                          |
| WARM UP 25 MIN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                             |                                          |
| <p><b>How to promote different kinds of intelligence at the same time in CLIL lesson?</b></p> <p>We are going to start this fourth session with a game, students will be asked to play the famous game <b>who is who?</b></p> <p>Playing this game in class, put into practice several intelligences as students have to reflect themselves, talk to others, work with their visual-spatial intelligence, etc.</p> <p>To do this game, the teacher must show pupils flashcards about animals. Ask a pupil to come to the front, take one of the cards and show it to the class without looking at it themselves.</p> <p>Tell the pupil with the card to ask the class questions about its appearance, such as:</p> |                                                                                                                                                                                                                                                                                                                             |                                          |

*Does it have big or small ears? What colour is it?*

Then, ask the pupil with the card to try and guess which type of animal it is.

Repeat the activity several times. Now, ask pupils to complete the following activity. Finally, they will check the answer with a listening so they can self-assess if they were right or not.



Some questions can be introduced related to the new topic about animal feeding.

For example,

- *Does this animal eat vegetables? Or maybe meat? Both?*

Depending on availability in the school, this activity can be done in the playground. It is a way of animating and motivating students more since it can use a larger space and breaks with the pre-established development of a session, leaving the traditional classroom.

As shown, any activity can be completed to develop or work with other intelligences.

### MODELING 10 MIN

Ask pupils to complete the listening from this video. Then, ask them to classify each animal from the activity as either an herbivore, carnivore or omnivore.

- Play the video again to the class and ask pupils to repeat the vocabulary. Then, split pupils into eight groups and allocate each group one of the animals in the video. Ask each group to come up with an action representing their animal to perform during the video and to teach it to the rest of the class. Finally, play the video again and ask the whole class to perform the actions for each animal.

[https://www.youtube.com/watch?v=bjnguo\\_BZ\\_Y](https://www.youtube.com/watch?v=bjnguo_BZ_Y)

### CLOSURE 15 MIN

To conclude the session, students must investigate about pollution in the different habitats studied.

It is important to develop in children consciousness about recycling, reusing, and being an eco-friendly person. For this reason, we are going to develop in class a discussion about pollution. It is difficult to have a discussion in a foreign language, so we are going to use some key words.

*We can find **plastic** at the sea.*

*What is **made of** plastic?*

### ASSESSMENT

As an example:

STD.2.1. Observes, identifies, names and classifies animals in their environment.

(LC)

STD.2.2. Identifies aquatic animals from freshwater or marine habitats, and recognises the animals that live in the deserts, the rainforests and the savannah.

(LC)

STD.2.3. Identify animals and their adaptations according to the habitat in which they live (aquatic, desert, tropical forest or savanna).

| Multiple Intelligences | Level of development |   |   |   |   |
|------------------------|----------------------|---|---|---|---|
| Linguistic             | 1                    | 2 | 3 | 4 | 5 |
| Logical - Mathematical | 1                    | 2 | 3 | 4 | 5 |
| Visual - Spatial       | 1                    | 2 | 3 | 4 | 5 |
| Musical                | 1                    | 2 | 3 | 4 | 5 |
| Naturalistic           | 1                    | 2 | 3 | 4 | 5 |
| Interpersonal          | 1                    | 2 | 3 | 4 | 5 |
| Intrapersonal          | 1                    | 2 | 3 | 4 | 5 |
| Bodily - Kinesthetics  | 1                    | 2 | 3 | 4 | 5 |

### RESOURCES

- Playground
- Markers
- Colouring pencils
- Worksheets
- Blackboard
- Interactive whiteboard
- Classroom materials
  - Flashcards
  - Word cards
- Classroom planning

### 5<sup>th</sup> SESSION

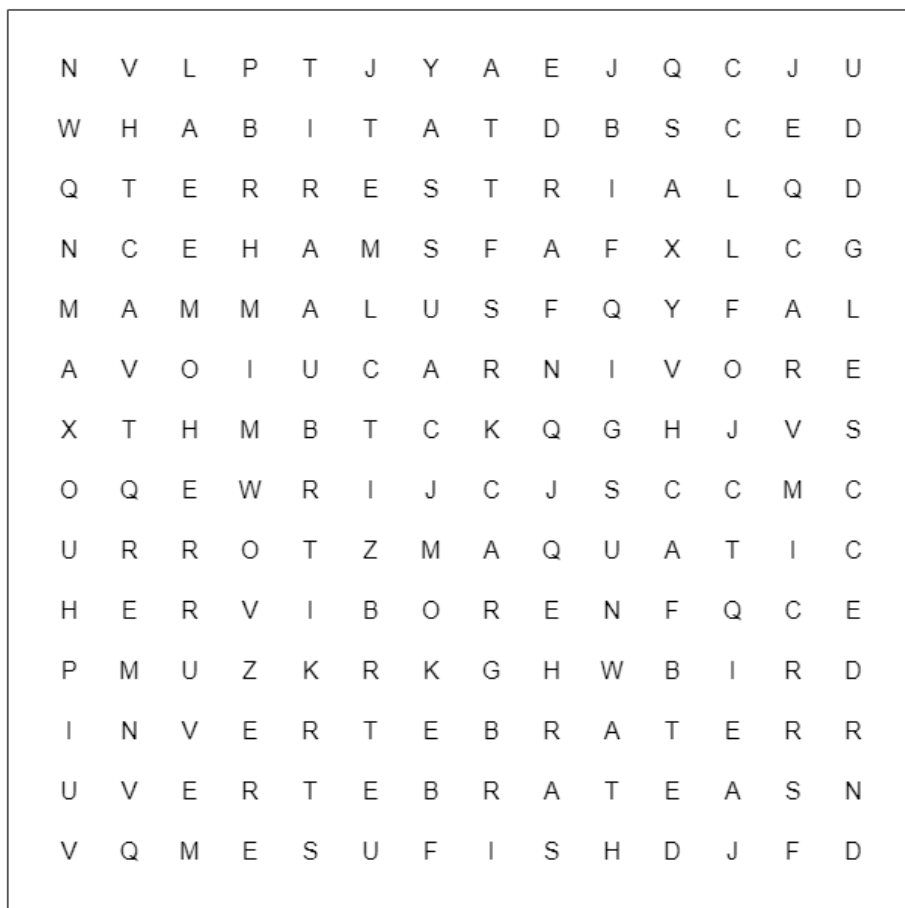
#### DIDACTIC CONTENTS

| COMPETENCES                                    | OBJECTIVES                                                                                                                                    | GROUPING                                 |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| know<br>Remember<br>Analyse<br>Apply<br>Create | <ul style="list-style-type: none"> <li>- To assess students' knowledge from this unit.</li> <li>- To promote the cooperative games</li> </ul> | Individual work<br>Groups<br>Whole Class |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                    |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <p>at class.</p> <ul style="list-style-type: none"> <li>- To promote the self-assessment into students.</li> </ul> |  |
| <b>TEACHING SEQUENCE- FINAL SESSION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                    |  |
| <b>SCAPERROOM: SELF - ASSESSMENT</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                    |  |
| <p>The last session of the unit will be centred on the assessment part. It will be carried out through a gym using the public spaces in the school.</p> <p>The students will be organised in groups of five and the teacher will offer them a map of the school with the places where they must search for clues to achieve a relational map that includes all the content that has been worked on the unit. Each map has a different order so that different groups of students will not help each other by following a different sequence. With this task students will promote all the intelligences that Gardner established.</p> <p>Five main places are established:</p> <p><b>- Secretary:</b></p> <p>In this first place, they will have the collaboration of the school's concierge, who will offer them the first clue. This track will consist in resolving a Word Search to look for the vocabulary they have studied in the unit, each student needs to find two word and they will deliver them to the custodian who has a template with the correct results. As long as they're okay, it will facilitate the next clue.</p> <p><i>Word search:</i></p> |                                                                                                                    |  |

## WORD SEARCH

Let's go!



[www.educima.com](http://www.educima.com)

|              |            |
|--------------|------------|
| AQUATIC      | BIRD       |
| CARNIVORE    | FISH       |
| HABITAT      | HERVIBORE  |
| INVERTEBRATE | MAMMAL     |
| TERRESTRIAL  | VERTEBRATE |

There are two options depending on the level of difficulty, the teacher can or not hide the words to look for.

### - Orchard:

In the garden they will have the next track in which they must look for three clues hidden in the orchard. Once they find the clues, they must join them and sing the song with the lyrics that they have formed joining the different clues.

One member of the club will be the one who records the song using the table that will be available there.

The song is available here: <https://www.youtube.com/watch?v=kzqHmSgskmQ>

*Sea sea sea sea sea sea.*  
*Let's dive and swim with sea animals.*  
*Sea sea sea sea sea sea.*  
*You can swim and play with sea animals.*

*Under the sea, the ocean.*  
*There're families of fish.*  
*Hello! Jellyfish look like umbrellas.*  
*Hello! Octopuses with no backbones.*

*Hello! White sharks with razor-sharp teeth.*  
*Hello! Seahorses that make a heart.*  
*Here we go!*  
*Sea sea sea sea sea sea.*

**- Material room:**

The activity of this part consists in doing a listening task. To elaborate an effective assessment, this must cover different tasks such as oral, written, listening and reading activities as well as activities which work with the cognition and culture.

They will not find the next track unless the results are correct. For that they have to find the secret animal that takes them to the next track using the code included in the listening task.

Listening task: *What are the dangers to the animal species below? Listen and circle the correct answers.*



**Iberian lynx:** habitat destruction / road mortality / air pollution / farming.



**Red tuna:** overfishing / lack of food / plastic pollution / deforestation.



**Brown bear:** housing / hunting / poisoned food / construction of roads.



**Iberian wolf:** hunting / deforestation / pollution / farming.



**Imperial eagle:** deforestation / hunting / farming / electrocution.



**Mediterranean tortoise:** fires / use of pesticides / hunting / pollution.

Finally, related to the endangered species, the students must write the following letter choosing an endangered animal from the exercise before.

Dear \_\_\_\_\_,

My name is \_\_\_\_\_. There is an animal in danger of extinction. It's the \_\_\_\_\_. It lives in \_\_\_\_\_. It needs \_\_\_\_\_. So I suggest we \_\_\_\_\_.  
Thank you for your help.

#### - **Gym:**

In this part of the scaperoom, the teacher will ask students to look for information on the internet about plastic pollution in the oceans.

Remember that pupils must only use the internet under adult supervision. Then, ask pupils to use the information they have found to make a poster on A3 paper to help raise awareness of the problems caused by plastics in aquatic habitats.

*How can we prevent plastic pollution?*

#### - **Computer room:**

Students will complete the last activity here, which consists of an interactive activity where they must classify different animals with the help of the computer.



<http://sciencenetlinks.com/interactives/class.html>

<https://www.tinytap.it/activities/g1fca/play/vertebrates-and-invertebrates>

As shown above, this scaperoom will try to promote each of the different intelligences, as it includes many activities which encourage the 8 intelligences from Gardner. Including activities of all kinds in the assessment allows students opportunities to access content in different ways, facilitating understanding of the topic.

| Multiple Intelligences | Level of development |   |   |   |   |
|------------------------|----------------------|---|---|---|---|
| Linguistic             | 1                    | 2 | 3 | 4 | 5 |
| Logical - Mathematical | 1                    | 2 | 3 | 4 | 5 |
| Visual - Spatial       | 1                    | 2 | 3 | 4 | 5 |
| Musical                | 1                    | 2 | 3 | 4 | 5 |
| Naturalistic           | 1                    | 2 | 3 | 4 | 5 |
| Interpersonal          | 1                    | 2 | 3 | 4 | 5 |
| Intrapersonal          | 1                    | 2 | 3 | 4 | 5 |
| Bodily - Kinesthetics  | 1                    | 2 | 3 | 4 | 5 |

## RESOURCES

- Playground

- Markers
- Colouring pencils
- Worksheets
- Blackboard
- Interactive whiteboard
- Classroom materials
- Flashcards
- Word cards
- Classroom planning

#### 3.4.4. Evaluation

The evaluation of the didactic unit as well as the work done by the teacher must be considered. It is important to know the successes and errors. Thus, errors for future units can be corrected and new strategies or improvements can be introduced.

| DIDACTIC UNIT EVALUATION                                                                                                                                                                                   |   |   |   |   |   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|
| LEVEL OF DEVELOPMENT ( Being 5 fully agreed and 1 totally disagreed)                                                                                                                                       | 1 | 2 | 3 | 4 | 5 |
| 1. The stages selected for carrying out the activities were appropriate.                                                                                                                                   |   |   |   |   |   |
| 2. The transition between the different stages was orderly and the adaptation of the students was adequate.                                                                                                |   |   |   |   |   |
| 3. The stages used had the necessary resources to carry out the activities.                                                                                                                                |   |   |   |   |   |
| 4. The students knew the activities they would have to carry out in each scenario, as well as the resources they would have to use and had received sufficient guidance on the most appropriate behaviour. |   |   |   |   |   |
| 5. The grouping of students allowed cooperation and attention to special educational needs.                                                                                                                |   |   |   |   |   |
| 6. The teaching methods used to facilitate learning were adequate.                                                                                                                                         |   |   |   |   |   |
| 7. The methods used included standardized resources.                                                                                                                                                       |   |   |   |   |   |

|                                                                                                                     |  |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| <b>8.</b> The methods used included own resources developed or adapted by the teacher                               |  |  |  |  |  |
| <b>9.</b> Both the teachers and the students adequately performed the "roles" established in each of the scenarios. |  |  |  |  |  |
| <b>10.</b> The final product of the task was used as a source of information on the learning acquired.              |  |  |  |  |  |

#### 4. CONCLUSIONS

There are many questions that can now be raised after reading this proposal for improvement. First, it is necessary to analyse whether the proposal is viable or not.

With this intervention, I have tried to promote multiple intelligences in the classroom through the CLIL. It is true that the implementation of activities that encompass the development of all these intelligences is an expensive task; it takes time and enthusiasm to carry out the activities first, and in the background, the implementation of the activities in the classroom.

It requires an enthusiastic and innovative attitude from the teacher, who weighs more on the results obtained than the effort involved. Likewise, it takes time to complete a complete teaching unit that allows all the objectives described here. The textbook in this case, perhaps supposes a "limiter", since if the teacher must dedicate the time to all the activities that appear in the topic, there would not be enough time for the activities proposed here. For this reason, a combination of both resources is considered optimal.

The estimated results allow CLIL to approach all the students, attending to their personal and individual needs, their interests and their experiences. I consider that this practice can be transferred to the rest of the areas that complete the Primary Education curriculum. I firmly believe in the premise that, as teachers, we must seek to bring education closer to the student, and I consider that the Theory of Multiple Intelligence is a useful way to achieve this goal.

The implication that the teacher must assume, as explained above, consists in the implementation of resources, guidelines and activities that support inclusion. Multiple intelligences are here an additional resource for inclusion, thus obtaining greater benefits.

The intervention proposed in this work is not utopian or fanciful; these interventions are totally viable and feasible for any teacher. Moreover, a proposal such as this one can be successfully implemented counting on the teachers' implication in their classroom.

## 5. REFERENCES

- Ahmed, A. (2012). The relationship between multiple intelligences theory and methods of ELT. *Journal of Learning and Teaching*, 4(2), 26-41.
- Antunes, C. (2000). *Estimular las Inteligencias Múltiple*. Madrid: Narcea.
- Armstrong, T. (2006). *Inteligencias múltiples en el aula*. Barcelona: Paidós.
- Arnold, J.B. & Fonseca, C. (2004). Multiple Intelligence Theory and Foreign Language Learning: A Brain-based Perspective. *IJES*, 4(1), 119-136.
- Barrios, M<sup>a</sup>. E. (2002). Propuestas de aplicación de la Teoría de las Inteligencias Múltiples a la enseñanza de una lengua extranjera. *Revista para profesores de inglés*, 10(1), 25-29.
- Beare, Kenneth. (2020, January 29). Multiple Intelligences in the ESL Classroom. Retrieved from <https://www.thoughtco.com/multiple-intelligences-in-the-esl-classroom-1212160>
- Campbel, L. (1997). How teachers interpret MI Theory. *Educational Leadership*, 55(1), 15-19.
- Coyle, D., Hood P. & Marsh D. (2010). *CLIL, Content and Language Integrated Learning*. Cambridge: Cambridge University Press.
- Coyle, D. (2010). *Foreword in CLIL in Spain: Implementation, Results and Teacher Training*. Newcastle: Cambridge Scholars Publishing.
- Collazos, C. & Mendoza, J. (2006). *Cómo aprovechar el "aprendizaje colaborativo" en el aula*. Educación y Educadores. Santiago de Chile: Universidad de Chile.
- Christison, M. (1998). Applying multiple intelligence theory in pre-service and inservice TEFL education programs. *English Language Teaching Forum*, 36(2), 2-13.
- Christison, M. (1999). Multiple Intelligences: Teaching the whole student. *ESL Magazine*, 2(5), 10-13.
- Christison, M. (2001). *Applying Multiple Intelligences Theory in the Second and Foreign Classroom*. Burlingame: Alta Book Center Publishers.
- Derakhshan, A. & Faribi, M. (2015). Multiple Intelligences: Language Learning and Teaching. *International Journal of English Linguistics*, 5(4), 63-72.
- Ellis, R. (1994). *The Study of Second Language Acquisition*, Oxford: Oxford University Press.

- Ellis, R. (2003). *The Methodology off Task-Based Teaching. Task-based Language Learning and Teaching*. Oxford: Oxford University Press.
- Estadística de las Enseñanzas no universitarias. Curso 2012-2013. S.G. de Estadística y Estudios del Ministerio de Educación, Cultura y Deporte.
- Estadística de las Enseñanzas no universitarias. Curso 2017-2018. S.G. de Estadística y Estudios del Ministerio de Educación y Formación Profesional.
- Ferrándiz, C. & Prieto, M.D (2001). *Inteligencias múltiples y currículum escolar*. Archidona, Málaga: Aljibe.
- Ferrándiz, C., Bermejo, R., Sainz, M., Ferrando, M. & Prieto, M. D. (2008). A study of logical-mathematical thinking from multiple intelligences framework. *Anales De Psicología / Annals of Psychology*, 24(2), 213-222. Retrieved from <https://revistas.um.es/analesps/article/view/42731>
- Gardner, H. (2002). *La mente no escolarizada. Como piensan los niños y como deberían enseñar las escuelas*. Barcelona: Paidós.
- Gardner, H. (1994). *Estructuras de la mente*. Distrito Federal: FCE - Fondo de Cultura económica.
- Gardner, H. (1995). *Inteligencias múltiples*. Barcelona: Paidós.
- Gardner, H. (1995). *Mentes creativas. Una anatomía de la creatividad vista a través de las vidas de S. Freud, A. Einstein, P. Picasso, I. Stravinsky, T. S. Elliot, M. Graham, M. Gandhi*. Barcelona: Paidós.
- Junta de Andalucía. (2005). *Plan de Fomento del Plurilingüismo en Andalucía*. Sevilla: Junta de Andalucía.
- Lasagabaster, D. & Sierra, J. M. (2009). Language attitudes in CLIL and traditional EFL classes. *International CLIL Research Journal*, 1(2), 4-17.
- Lasagabaster, D. & Sierra, J. M. (2010.). Immersion and CLIL in English: more differences than similarities. *ELT Journal*, 64(4), 367-375.
- Marsh, D. (ed.). (2002) *CLIL/EMILE. The European Dimension. Actions, Trends, and Foresight Potential*. Jyväskylä: University of Jyväskylä.
- Pérez-Cañado, M.L. (2012). CLIL research in Europe: past, present, and future, *International Journal of Bilingual Education and Bilingualism*, 15(3), 315-341.
- Pérez-Cañado, M. L. (2013). Introduction. *Revista de Lenguas para Fines Específicos*, 19, 12-27.

- Pérez-Vidal, C. (2007). The need for focus on form (FoF) in Content and Language Integrated approaches: An exploratory study. *RESLA*, 1, 9-54.
- Richard, J. C. y Rogers, S. T. (Eds.) (2001). *Approaches and Methods in Language Teaching*. Cambridge: Cambridge University Press.
- Teele, S. (1996). Redesigning the educational system to enable all students to succeed. *NASSP Bulletin*, 80, 65-75.
- Torrego, J. C. & Negro, A. (coords.) (2012). *Aprendizaje colaborativo en las aulas: Fundamentos y recursos para su implantación*. Madrid: Alianza Editorial.

## 6. APPENDIX

Datos extraídos de la Estadística de las Enseñanzas no universitarias. Curso 2012-2013 y 2017-2018. S.G. de Estadística y Estudios del Ministerio de Educación, Cultura y Deporte.

### E3. LA UTILIZACIÓN DE LAS LENGUAS EXTRANJERAS COMO LENGUAS DE ENSEÑANZA

CURSO 2017-18

#### E3.7. Porcentaje de centros con otras experiencias de utilización de lenguas extranjeras como lengua de enseñanza por comunidad autónoma, enseñanza y titularidad/financiación

(continúa)

|                             | Todos los centros |            |              | Centros públicos |            |              |
|-----------------------------|-------------------|------------|--------------|------------------|------------|--------------|
|                             | E. Primaria       | ESO        | Bachillerato | E. Primaria      | ESO        | Bachillerato |
| <b>TOTAL</b>                | <b>6,8</b>        | <b>8,1</b> | <b>2,5</b>   | <b>5,8</b>       | <b>8,0</b> | <b>1,9</b>   |
| Andalucía                   | 0,0               | 0,0        | 0,0          | 0,0              | 0,0        | 0,0          |
| Aragón                      | 9,4               | 2,9        | 0,8          | 8,6              | 0,0        | 0,0          |
| Asturias, Principado de     | 0,7               | 2,1        | 0,0          | 0,9              | 1,2        | 0,0          |
| Baleares, Illes             | 10,0              | 14,0       | 2,2          | 6,5              | 17,1       | 1,5          |
| Canarias                    | 0,7               | 1,9        | 0,5          | 0,0              | 0,0        | 0,0          |
| Cantabria                   | 0,5               | 0,0        | 0,0          | 0,8              | 0,0        | 0,0          |
| Castilla y León             | 2,8               | 3,5        | 1,8          | 1,8              | 0,0        | 1,0          |
| Castilla-La Mancha          | 4,1               | 0,9        | 0,5          | 3,4              | 0,5        | 0,5          |
| Cataluña                    | -                 | -          | -            | -                | -          | -            |
| Comunitat Valenciana        | 6,2               | 14,2       | 4,1          | 5,3              | 20,4       | 4,0          |
| Extremadura                 | 0,0               | 0,0        | 0,0          | 0,0              | 0,0        | 0,0          |
| Galicia                     | 38,4              | 38,1       | 10,6         | 39,8             | 48,5       | 12,8         |
| Madrid, Comunidad de        | 4,2               | 4,4        | 1,8          | 1,4              | 0,8        | 0,0          |
| Murcia, Región de           | 1,8               | 1,8        | 0,0          | 0,0              | 0,0        | 0,0          |
| Navarra, Comunidad Foral de | 0,0               | 33,3       | 5,5          | 0,0              | 41,1       | 5,9          |
| País Vasco                  | 22,1              | 20,0       | 9,7          | 20,0             | 14,4       | 1,1          |
| Rioja, La                   | 47,1              | 44,2       | 11,1         | 36,7             | 24,1       | 10,5         |
| Ceuta                       | 13,0              | 8,3        | 0,0          | 11,8             | 0,0        | 0,0          |
| Melilla                     | 0,0               | 0,0        | 0,0          | 0,0              | 0,0        | 0,0          |

(conclusión)

|                             | Enseñanza concertada |            |              | Enseñanza privada no concertada |            |              |
|-----------------------------|----------------------|------------|--------------|---------------------------------|------------|--------------|
|                             | E. Primaria          | ESO        | Bachillerato | E. Primaria                     | ESO        | Bachillerato |
| <b>TOTAL</b>                | <b>10,3</b>          | <b>8,8</b> | <b>6,5</b>   | <b>6,1</b>                      | <b>3,9</b> | <b>2,5</b>   |
| Andalucía                   | 0,0                  | 0,0        | 0,0          | 0,0                             | 0,0        | 0,0          |
| Aragón                      | 12,2                 | 5,0        | 0,0          | 11,1                            | 25,0       | 3,3          |
| Asturias, Principado de     | 0,0                  | 3,6        | 0,0          | 0,0                             | 0,0        | 0,0          |
| Baleares, Illes             | 18,9                 | 12,3       | 5,9          | 0,0                             | 0,0        | 0,0          |
| Canarias                    | 3,6                  | 4,9        | 0,0          | 13,3                            | 13,3       | 3,2          |
| Cantabria                   | 0,0                  | 0,0        | 0,0          | 0,0                             | -          | 0,0          |
| Castilla y León             | 6,7                  | 8,4        | 0,0          | 0,0                             | 6,7        | 4,5          |
| Castilla-La Mancha          | 8,5                  | 2,2        | 0,0          | 0,0                             | 0,0        | 0,0          |
| Cataluña                    | -                    | -          | -            | -                               | -          | -            |
| Comunitat Valenciana        | 8,2                  | 7,7        | 2,1          | 11,4                            | 7,9        | 11,1         |
| Extremadura                 | 0,0                  | 0,0        | 0,0          | 0,0                             | 0,0        | 0,0          |
| Galicia                     | 36,2                 | 22,9       | -            | 0,0                             | 0,0        | 3,0          |
| Madrid, Comunidad de        | 8,3                  | 7,8        | 4,8          | 9,0                             | 3,2        | 2,6          |
| Murcia, Región de           | 6,5                  | 3,8        | 0,0          | 20,0                            | 0,0        | 0,0          |
| Navarra, Comunidad Foral de | 0,0                  | 22,2       | 4,8          | 0,0                             | 0,0        | -            |
| País Vasco                  | 25,7                 | 24,0       | 16,7         | 0,0                             | 0,0        | 0,0          |
| Rioja, La                   | 75,0                 | 69,6       | 0,0          | 0,0                             | -          | 14,3         |
| Ceuta                       | 16,7                 | 16,7       | -            | -                               | -          | 0,0          |
| Melilla                     | 0,0                  | 0,0        | -            | 0,0                             | -          | 0,0          |

### E3. LA UTILIZACIÓN DE LAS LENGUAS EXTRANJERAS COMO LENGUAS DE ENSEÑANZA

CURSO 2012-13

#### E3.7. Porcentaje de centros con otras experiencias de utilización de lenguas extranjeras como lengua de enseñanza por comunidad autónoma, enseñanza y titularidad/financiación

(continúa)

|                              | Todos los centros |            |              | Centros públicos |            |              |
|------------------------------|-------------------|------------|--------------|------------------|------------|--------------|
|                              | E. Primaria       | ESO        | Bachillerato | E. Primaria      | ESO        | Bachillerato |
| <b>TOTAL</b>                 | <b>3,6</b>        | <b>3,7</b> | <b>1,0</b>   | <b>2,9</b>       | <b>3,4</b> | <b>0,7</b>   |
| Andalucía                    | 0,0               | 0,0        | 0,0          | 0,0              | 0,0        | 0,0          |
| Aragón                       | 3,9               | 1,9        | 0,8          | 3,4              | 1,6        | 1,2          |
| Asturias (Principado de)     | 47,7              | 39,3       | 7,1          | 46,9             | 63,2       | 8,3          |
| Baleares (Illes)             | 30,0              | 31,9       | 7,8          | 23,7             | 47,1       | 7,7          |
| Canarias                     | 0,0               | 0,0        | 0,0          | 0,0              | 0,0        | 0,0          |
| Cantabria                    | 6,4               | 13,8       | 1,6          | 7,4              | 24,0       | 2,2          |
| Castilla y León              | 3,4               | 1,7        | 1,3          | 3,9              | 0,7        | 0,5          |
| Castilla-La Mancha           | 4,4               | 1,5        | 0,0          | 2,9              | 1,3        | 0,0          |
| Cataluña                     | 0,0               | 0,0        | 0,0          | 0,0              | 0,0        | 0,0          |
| Comunitat Valenciana         | --                | --         | --           | --               | --         | --           |
| Extremadura                  | 0,0               | 0,0        | 0,0          | 0,0              | 0,0        | 0,0          |
| Galicia                      | 0,0               | 0,0        | 0,0          | 0,0              | 0,0        | 0,0          |
| Madrid (Comunidad de)        | 2,5               | 1,7        | 1,1          | 0,9              | 1,3        | 0,0          |
| Murcia (Región de)           | 0,8               | 1,4        | 0,7          | 0,0              | 0,0        | 0,0          |
| Navarra (Comunidad Foral de) | 0,0               | 0,0        | 0,0          | 0,0              | 0,0        | 0,0          |
| País Vasco                   | 19,6              | 25,6       | 5,4          | 13,5             | 13,3       | 1,1          |
| Rioja (La)                   | 39,0              | 54,7       | 25,0         | 32,2             | 60,0       | 28,6         |
| Ceuta                        | 4,5               | 8,3        | 0,0          | 0,0              | 0,0        | 0,0          |
| Melilla                      | 6,3               | 0,0        | 0,0          | 0,0              | 0,0        | 0,0          |

(conclusión)

|                              | Enseñanza concertada |            |              | Enseñanza privada no concertada |            |              |
|------------------------------|----------------------|------------|--------------|---------------------------------|------------|--------------|
|                              | E. Primaria          | ESO        | Bachillerato | E. Primaria                     | ESO        | Bachillerato |
| <b>TOTAL</b>                 | <b>6,4</b>           | <b>4,3</b> | <b>3,0</b>   | <b>2,6</b>                      | <b>1,8</b> | <b>1,1</b>   |
| Andalucía                    | 0,0                  | 0,0        | 0,0          | 0,0                             | 0,0        | 0,0          |
| Aragón                       | 3,8                  | 1,3        | 0,0          | 20,0                            | 12,5       | 0,0          |
| Asturias (Principado de)     | 56,4                 | 7,0        | 0,0          | 0,0                             | 0,0        | 4,0          |
| Baleares (Illes)             | 47,7                 | 22,5       | 13,3         | 14,3                            | 8,3        | 0,0          |
| Canarias                     | 0,0                  | 0,0        | 0,0          | 0,0                             | 0,0        | 0,0          |
| Cantabria                    | 4,0                  | 2,4        | 0,0          | 0,0                             | 0,0        | 0,0          |
| Castilla y León              | 0,6                  | 2,3        | 0,0          | 40,0                            | 28,6       | 4,1          |
| Castilla-La Mancha           | 13,9                 | 2,1        | 0,0          | 0,0                             | 0,0        | 0,0          |
| Cataluña                     | 0,0                  | 0,0        | 0,0          | 0,0                             | 0,0        | 0,0          |
| Comunitat Valenciana         | --                   | --         | --           | --                              | --         | --           |
| Extremadura                  | 0,0                  | 0,0        | 0,0          | 0,0                             | 0,0        | 0,0          |
| Galicia                      | 0,0                  | 0,0        | --           | 0,0                             | 0,0        | 0,0          |
| Madrid (Comunidad de)        | 5,4                  | 2,3        | 4,7          | 2,2                             | 0,8        | 1,6          |
| Murcia (Región de)           | 1,9                  | 1,0        | 0,0          | 25,0                            | 28,6       | 4,3          |
| Navarra (Comunidad Foral de) | 0,0                  | 0,0        | 0,0          | 0,0                             | --         | --           |
| País Vasco                   | 29,9                 | 34,0       | 9,1          | 0,0                             | 0,0        | 0,0          |
| Rioja (La)                   | 56,5                 | 47,8       | 0,0          | --                              | --         | 16,7         |
| Ceuta                        | 16,7                 | 16,7       | --           | --                              | --         | 0,0          |
| Melilla                      | 33,3                 | 0,0        | --           | 0,0                             | --         | 0,0          |

Flashcard used in the unit.

