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CLIL AS A METHOD TO IMPROVE SIGNIFICANT LEARNING: A PRACTICAL PROPOSAL FOR PRIMARY EDUCATION

Student: Rosales Serrano, Laura

Supervisor: Dr. Jesús M. Nieto García

Department: English Philology

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Abstract

The aim of this project is to show how CLIL methodology in bilingual education can be really positive. To achieve this, first we have collected information about CLIL, the place it has in education in Europe, in Spain and in Andalusia. We try to contextualise CLIL as a bilingual methodology, and how it works when it is integrated in the curriculum. In addition, we present some strategies to achieve a successful CLIL, showing some of the benefits of using this kind of methodology, giving also some tips to be a good CLIL teacher. Finally a quick reference to how multiple intelligences and emotions can also be integrated as a part of a CLIL project will be included. After this, we present a didactic proposal of a CLIL project in natural science, in an Integrated Didactic Unit, where cooperative work, in addition to the multiple intelligences, are a part of it.

Key words

CLIL, coordination, bilingual education, integrated, skills.

Resumen

El objetivo de este trabajo es mostrar que la metodología AICLE en la enseñanza bilingüe es realmente positiva. Para ello, primero se ha recopilado información sobre AICLE, cómo se afronta en Europa, en España y en Andalucía. Se ha intentado mostrar cómo se contextualiza dentro de una metodología bilingüe y más concretamente cómo se integra en el currículum. También se presentan estrategias para llevar a cabo un proyecto AICLE exitoso, mostrando algunos de los beneficios de usar esta metodología, ofreciendo algunas claves para ser un buen profesor de AICLE. Finalmente se incluye una referencia a las inteligencias múltiples y las emociones, y a su integración dentro de un proyecto AICLE. Tras esto, se presenta una propuesta didáctica de un proyecto AICLE para el área de ciencias de la naturaleza, dentro de una Unidad Didáctica Integrada en la que el trabajo cooperativo y las inteligencias múltiples son una parte integrante.

Palabras clave

AICLE, coordinación, educación bilingüe, integrado, destrezas.

1. INTRODUCTION

Content and Language Integrated Learning (CLIL) is a teaching methodology that has had great repercussion in recent times. Teachers are increasingly being trained and informed about it. From the moment bilingualism began to be implemented at schools, teachers had to change their methodology and their mind set. Nowadays, different researches and experiences show how CLIL can offer a successful and significant learning thanks to sequenced objectives and contents, adapting materials for our students, connecting contents not only with their interests but also with their level of English. CLIL has very positive effects not only on the students' language skills, but also on their cognitive and social skills.

CLIL doesn't consist only in teaching and learning contents in English, it consists in providing our students with the necessary materials and experiences to create a significant learning. They should be competent and use the knowledge in their daily lives, connecting everything they learn. Because of this, Integrated Didactic Units and cooperative work contribute to a large extent to the success of a CLIL project. It is a well-known fact that teachers must work hard to complete a successful CLIL project, so cooperation and coordination between them, as well as a change in their mind set, are crucial elements for teaching in the current situation.

2. A FRAMEWORK FOR THE IMPLEMENTATION OF CLIL

In order to be a good CLIL teacher it is of paramount importance to know what CLIL is in the first place and where its origin is. The framework of CLIL to be used in this project covers from Europe to the regional government where it is going to be applied. For this reason, the next points will focus on it. The following points provide several ideas and principles to design a successful CLIL project according to the curriculum.

2.1. A European framework for CLIL

Within Europe's general policies concerning education, there is a general objective which consists in enhancing European citizens' mobility within the EU, for which it is of paramount importance to give students from three to sixteen years old a bilingual and bicultural education through an integrated curriculum.

Just as is explained in the “European Framework for CLIL teacher Education”, which was a result of a CLIL curriculum development project financed by the Empowering Language Professionals Programme of the European Centre for Modern Languages, the curriculum has at least five different functions. The first one is that a curriculum is an educational programme which contains the different contents and competences that students should acquire depending on their stage. The second one defines the curriculum as a source of innovation where we can see renewed learning aims, content and methodological guidelines. Consequently, the third one points the curriculum as a tool for planning and carrying out teaching-learning sequences. Moreover, the fourth one points that it is an instrument to assess teaching and learning, not only for teachers but also for authorities. Finally, the fifth one presents the curriculum as a tool to regulate, standardise and compare teaching and learning, depending on the levels, country or region. To sum up, according to Marsh, Mehisto, Wolff and Frigols Martín (2012), a European Framework for CLIL must provide points to know the competences to teach successfully content subjects and an additional language significantly and in an integrated manner:

Curriculum development is also a means for building high quality CLIL programming. This European Framework for CLIL Teacher Education is intended to serve as a point of reference for providers of teacher training across Europe. It aims to contribute to the development or enhancement of CLIL training that will support teachers in enriching their students’ learning experience (Marsh, Mehisto, Wolff and Frigols Martín, 2012: 4).

Additionally, according to Lorenzo, Casal and Moore (2010: 419), as we will see in further detail in a later section, European Multilingualism is “a social phenomenon of multiple languages in social groups”, and European Plurilingualism is “an ample language repertoire amongst a majority of individuals, which should enable students not only to *savoir* but also to *savoir faire* and *savoir être* in a reconfigured continental environment”.

2.2. Spanish regulations

Spain was one of the countries that took longer to implant the teaching of languages in contrast with most European countries. In 2005 Spain was in the 21st place out of a list of 25 countries in learning a foreign language. In 2012 this situation improved a little, and Spain occupied the 22nd place of 27 countries. This situation, according to Morilla García (2016), was a direct consequence of the use of a non-communicative methodology. Consequently, in

the first two decades of the 21st century, many regional governments have been trying to solve this problem through new methods of education in relation with learning a foreign language.

In Spain there have been different laws which have been crucial in terms of educational changes. According to Quero Hermosilla (2018), and in relation with bilingualism, it is important to highlight Organic Law 1/1990, of October 3rd, which reinforced the cultural, linguistic and educational diversity and identity of each regional government, the educational system giving new opportunities to bilingualism. Another Organic Law, 2/2006, of May 3rd, includes an important general objective: to acquire in at least one foreign language the basic communicative competence that enhances expressing and understanding simple messages and acting in daily situations:

Adquirir en, al menos, una lengua extranjera la competencia comunicativa básica que les permita expresar y comprender mensajes sencillos y desenvolverse en situaciones cotidianas (Ley Orgánica 2/2006, de 3 de mayo).

In addition, in article 19.4 of this Law, we can see some pedagogical principles which suggest that Spanish, or the co-official language, will be used just as a support in the learning process of the foreign language. Oral comprehension and oral expression will have a priority treatment. In addition, there will be the necessary adaptations for students with special educational needs:

En la etapa de la enseñanza primaria, la lengua castellana o la lengua cooficial sólo se utilizará como apoyo en el proceso de aprendizaje de la lengua extranjera. Se priorizarán la comprensión y la expresión oral. Se establecerán medidas de flexibilización y alternativas metodológicas en la enseñanza y evaluación de la lengua extranjera para el alumnado con discapacidad, en especial para aquel que presenta dificultades en su expresión oral (Ley Orgánica 2/2006, de 3 de mayo).

Additionally, Organic Law 8/2013, of December 9th, insists on the importance of innovation in education, within which it highlights the use of Information and Communication Technologies (ICTs) and the promotion of Plurilingualism. Moreover, it points out that in order to help teachers, a person with the right expertise in the foreign language may also take part in the teaching-learning process in these programmes:

El Gobierno establecerá las bases de la educación plurilingüe desde Segundo ciclo de educación infantil hasta bachillerato, previa consulta a las Comunidades Autónomas (...). Para suplir la falta de personal docente con competencias lingüísticas suficientes, las Administraciones educativas podrán excepcionalmente incorporar expertos con dominio de lenguas extranjeras, nacionales o extranjeros, como profesorado en programas bilingües o plurilingües (Ley Orgánica 8/2013, artículo 109).

In addition, it is important to highlight that this Law makes a special mention of the use of European tools for language teaching, the *Common European Framework of Reference for Languages* and the *European Portfolio of Languages*. Moreover, it promotes the implementation of CLIL as one of the most important changes next to the new eight basic competencies.

2.3. CLIL in Andalusia

According to Lorenzo (2010), Andalusia has traditionally been characterised as a community having a strong monoglot mentality. So when bilingualism came to Spain and especially to Andalusia, it was for different reasons. Lorenzo (2010) also suggests that some of these factors are related to globalisation, which brought with it a new scenario with different languages and cultures. Consequently, the Andalusian *Magna Carta*, quoted in Lorenzo (2010), says that:

Andalusia is the compilation of a rich cultural resource representing the confluence of a multiplicity of peoples and civilisations thereby providing a fine example of social inter-relations through the centuries. The inter-culturality of practices, habits and ways of life provides us with the profile of an Andalusian character based on non-exclusive universal values. (Andalusian Parliament: Autonomous Statute of Andalusia, 2006: 1, quoted in Lorenzo, 2010: 3).

In spite of this, not only was the cultural dimension important to promote the change, but also the authorities' concern with an efficient language teaching: "authorities have started to focus on the promotion of L2 competences as vital for modernization and prosperity" (Lorenzo, 2010: 3).

According to Morilla García (2016), the first law that allowed improving foreign language teaching and learning was Organic Law 1/1990, of October 3rd. It was in 2005 when the Andalusian government launched the Plurilingualism Promotion Plan in order to adhere to

European policies. In a nutshell, this plan consists in changing from social monolingualism to multilingualism through education:

The entire educational network (...) is to incorporate up to two new foreign languages as media of instruction, and half of the network is imparting up to 40 per cent of the curriculum in more than one language, taught by teachers recruited on the basis of their language profiles (Lorenzo, Casal and Moore, 2010: 419).

This plan constitutes an institutional recognition through a European Language Label Award. In addition, it includes provisions for monitoring and evaluation:

Language behaviour and competences in content-based settings; the discourse functions employed by content teachers as opposed to language teachers and native assistants in the programme; the impromptu incorporation of language across the curriculum and the effects on the education system are deemed particularly relevant (Lorenzo, Casal and Moore, 2010: 420).

In addition, according to Morilla García (2016), the bilingual sections were based on two common languages, where the first one is the mother tongue and the second one is the foreign language. In this way students can learn both languages. The objective was an equilibrated bilingualism, where the second language should be used to teach and learn some subjects such as science, arts or music. In this way both languages –the mother tongue and the foreign language– will be important in the learning process.

In harmony with Lorenzo (2010), the *Plan* represents the first ever concerted political attempt to develop a language policy for Andalusian society (Lorenzo, 2010: 4). An approximate amount of 141 million euros was invested on human and technical resources, teacher training, mobility and the innovation of curricula design. The provision of native teachers, assessment of results and mobility were important aspects of this *Plan*. As Lorenzo (2010) also explains, native teachers have several positive effects not only on our students' learning but also on teachers' development of CLIL, helping them in the teaching process and in the production of teaching materials:

Native teachers brought the possibility for students to mould their learning around native models, with the knock-on effect that authenticity always brings to motivation in the classroom and secondly the chance for teachers to put their English into practice and improve their levels (Lorenzo, 2010: 5).

According to Ramos (2007), as presented in Morilla García (2016), training is also a crucial aspect, so that the courses for teachers should focus on expressive fluency through interaction, integration of different basic skills and using interdisciplinary strategies which facilitate the students' learning.

The *Common European Framework of Reference for Languages* (CEFR) provides a more useful description of skill development and common evaluation criteria in the classroom, and it was accordingly incorporated in the *Plan*. Each school had to introduce bilingual subjects which hold 40% of the school curriculum. Mobility programs have an important role too. They are destined not only for students but also for teachers in order to extend classroom language learning, with the following purposes:

To facilitate periods of overseas immersion for teachers, to increase student exchanges and work experience opportunities, to promote school-twinning initiatives, to support curricula development and to expand the possibilities for adult education and lifelong learning (Lorenzo, 2010: 5).

PISA results show how Spain was traditionally at a lower level in terms of bilingual education than other countries, opening everybody's eyes. In this way, in recent years CLIL has been implemented in our schools and society with the aim of helping to solve this problem and improve the level of our students. In addition, according to Lorenzo, Casal and Moore (2010), there was a new demand that meant that students could enjoy the benefits of the multilingual schools:

CLIL is an approach which may hold significant potential for European education planning. Not only does it promote the integration of content and language, CLIL also fosters greater interdepartmental collaboration and conflates with other language development initiatives such as Language across the Curriculum, the genre-based approach and multi-disciplinary curricula (Lorenzo, Casal and Moore, 2010: 437).

Moreover, as we can also read in Lorenzo (2010), in order to improve PISA results, one of the strong suggestions of the European Parliament and their new guidelines for life-long language learning was to teach languages, the mother tongue included, with a true communicative competence as a priority:

CLIL stands for integrated language curriculum and the overall point was to turn upside down the bases of mother tongue education by making it communicative in such a way that students were competent in text production by the end of secondary school (Lorenzo, 2010: 8).

As the mother tongue is crucial to understand contents, it should be well worked on to achieve a good competence in our students. If we can achieve that the mother tongue is a nexus with the foreign language, bilingualism will work better. CLIL requires coordination between all the languages and subjects involved. For this reason, following Lorenzo (2010), there are four important aspects to take into account in order to work the mother tongue properly:

1. Genre-based approach: providing a wide variety of texts with social and academic value.
2. Task-based methods: which consist in achieving that our students use the language significantly in different real contexts.
3. Centrality of texts: texts should be authentic and meaningful in order to attract the student's attention and motivation.
4. Continuous assessment: where the European Language Portfolio plays an important role.

The linguistic project related to bilingualism and CLIL should be included, according to Morilla García (2016), in the general school centre's project, including cultural activities and the foreign exchange of students and teachers. This project must contain the school centre's policy in order to make easier for students the development of the linguistic skill. The linguistic project requires the participation of the whole teaching staff and a new curricular organisation according to the keys given by the CEFR.

3. BILINGUALISM, PLURILINGUALISM AND MULTILINGUALISM IN EDUCATION

Bilingualism can be defined as a relation between a person and two different languages, or as the extended use of more than one language in a society. There are different researchers studied by Morilla García (2016) who explain what we mean when we refer to a bilingual person. On the one hand Bloomfield (1933) suggested that a bilingual person is whoever has a native control of two or more languages. Titone (1976) said that a bilingual person is whoever knows how to speak in a second language considering the specific concepts and structures of

this language. Weinreich (1964) defines bilingualism as the ability to use two languages alternatively, without specifying the degree of linguistic knowledge. By contrast, Haugen (1987) is one of the most flexible in describing bilingualism, because for him it does not imply a high degree of knowing the language competences. For her part, Moreno (2006) distinguishes between active and passive bilingualism. Along this line, Lorenzo, Trujillo and Vez (2011) explain that passive bilingualism is connected with CLIL, because students are working contents in a language different from the language used in the day to day of school and in their daily lives.

Because of the different definitions of bilingualism, it is important to know about the different types of bilingualism. Teachers should recognise what the best kind to work with a CLIL methodology is, in order to develop their teaching properly. To know more about this, we will take into account an important research presented by Morilla García (2016); Lambert (1974) shows the difference between additive bilingualism and subtractive bilingualism –see below in this section for a more precise treatment of these two terms:

- Additive bilingualism: it represents a cultural enriching next to second language acquisition. In this kind of bilingualism, students choose freely to be bilingual, searching places, contexts or formal lessons to achieve it. This is the kind of bilingual education we mostly find in our current educative systems through CLIL.
- Subtractive bilingualism: it appears in a context where you have to learn a new language to survive. It may be a risk to the first language, which could even disappear. For this reason, it may be an obstacle to a correct development of humans.

Lambert (1981) also speaks about a well-balanced bilingualism, where the connection between both languages can be the same in several contexts, and a dominant bilingualism, where a language tends to be more essential than the other.

Additionally, Cummins (1976) presents a hypothesis which shows how the linguistic skills in both languages are connected in the cognitive system and interact with each other in the brain. In this way, the more children have previously developed their L1, the more easily they can develop the L2.

Globalisation and mobility have caused new styles of life, new jobs and new methodologies in education, among other things. Europe established new objectives based on

Plurilingualism. The diversity of cultures requires an ability to use different languages and know more about different communities. The CEFR (Council of Europe, 2001: 4-5) defines multilingualism as a concept connected to the society and the community, and plurilingualism to the person who is able to use different languages in an integrated way. For this reason, education based on plurilingualism and pluriculturalism is crucial to achieve the aims of the European Union. If we want to communicate with as many people as possible in the world, we should be ready for this, and the best way consists in knowing other cultures and languages. Regarding this, “bilingual education” has been seriously promoted in recent years. According to Morilla García (2016), there are different bilingual methodologies and programmes, so it is important to know about them in order to implement some in our school. The main aim of bilingual education is to use the language as a way of instruction, to teach a specific content or a subject. Traditional education consisted in teaching both languages (L1 and L2) independently, as different subjects, with no connection between them. However, the key of bilingual education is to use the foreign language to teach contents in the curriculum, and at the same time we can connect them with the mother tongue. In the European Union, bilingual education is defined with the acronym CLIL, “Content and Language Integrated Learning”:

The choice of CLIL (...) responds to the fact that the term “bilingual education” is politically loaded for certain European countries, even though these are bilingual programs that use more than one language in instruction (García, 2009:10, quoted in Morilla García, 2016: 176).

According to Hornberger (1991), as mentioned by Morilla García (2016), in bilingual education we can differentiate between models and kinds of programmes. Models have to do with a wider category which contains language, culture and society, whereas kinds of programmes refer to the context (teachers and students) and structure (programme, curriculum, use of language, etc.).

Let us start by having a look at the models. Hornberger (1991) speaks about three different models:

1. The transitional model: when someone acquires the language and the culture of the society where he/she is going to be incorporated.
2. The maintenance model: when a cultural identity is reaffirmed through a study of its language.

3. The enrichment model: it consists in cultural pluralism through an acquisition of several languages.

Even if we should be familiar with these different models, they do not have a direct connection with the education system:

Models are artificial constructs that are divorced from the day-to-day reality of school language use, and the teaching and the learning of an additional language. There is no tight representation of systems, and the same model may have different features depending on how the many variables interact with each other (García, 2009:114, quoted in Morilla García, 2016: 177).

On the other hand, the different kinds of bilingual programmes, according to García (2009), as mentioned by Morilla García (2016: 183-185), are principally two:

1. Monolingual ideology (*ideología monoglósica*): it contains the language learning according to the monolingual rules, which can be subtractive or additive. As we saw above, it is subtractive when the language of instruction has all the power, and as a consequence the first language might disappear, and it is additive when both languages are used by students sharing concepts and ideas. They maintain the first language and learn the second language without losing either. In this kind of programme students begin as monolingual from the same linguistic point. Following García (2009), who partially connects this with Hornberger's findings, shortly presented above, inside this ideology there are different types of bilingual education. The first one is the transitional model, which uses the mother tongue as a tool to acquire the majority language. The second one is the maintenance model, which is used by the people who speak the minority language at home at the same time as they are developing the majority language at school. The third one is the prestigious model, where students are learning through two important languages with different teachers for each one. The fourth one is the linguistic immersion programme, where students are instructed in the language that they want to acquire. In this programme, the communication is real, the L2 is the language of instruction, the curriculum of the L1 and L2 run in parallel, the bilingualism is additive, the students are exposed to the L2 in the classroom, the level of students is homogeneous and elemental, teachers are bilingual and the culture is that of the majority local language.

2. Translanguaging ideology (*ideología heteroglósica*): it is used in bilingualism in order to teach a main language and an additional language in a more effective and global way. Students who take part in this programme come from communities which are comfortable with bilingualism. Following García (2009), inside this ideology there are also different types of bilingual education. The first one is the heritage language immersion type, which intends to incorporate the original language of the students' community to the curriculum. The second one is the dual programme, with a double immersion process: students can speak two languages and share their linguistic differences. The third one is the CLIL programme, where it is not necessary to devote the same amount of time to both languages, and it is not intended that students obtain a native level. Finally, the multiple programme consists in the acquisition of three languages.

In addition to knowing the different models and programmes, it is important to take into consideration the different factors which can affect bilingual education. According to Baetens-Beardsmore (2009), studied by Morilla García (2016), it is important to consider the context where bilingual education will be developed. That is, what students are like, how old they are, what their culture is like, how many opportunities there are to use the language, bearing in mind their economy, religion, ideologies, etc.

In our country, according to Pavón (2007), the main objective is to teach the second language as a way of communication, encouraging teaching through tasks and the acquisition of strategies and the different competences. It is also quite important to consider the factors connected with the education system, for instance, the curriculum requisites, what the proportion is between content and language, the election of the bilingual subjects, the use of L2, the age to begin the programme, the assessment criteria, materials and resources, teachers, families, and the whole school centre.

Finally, the linguistic competence and academic progress of our students is another point to bear in mind: what the objectives of our programme and the results that we want to achieve are. To know this, we should first clarify a broad linguistic objective. In Europe, the main objective is to learn the L2 without it affecting the L1. Moreover, following Lorenzo, Trujillo and Vez (2011), covered by Morilla García (2016), it is important to consider the educational level, bearing in mind that students with special necessities should not drop out of the bilingual programme, they should receive additional support instead. Finally, the

sociocultural factor is also relevant because it is proved that bilingual students show more benefits than monolingual students, not only in their linguistic level, but also in their sociocultural level.

4. THE INTEGRATED CURRICULUM AND CLIL

Following Morilla García (2016), the integrated teaching of a language and contents defines an Integrated Curriculum. Teaching programming is of paramount importance in order to select the subjects and its objectives and contents. They should have common tasks and topics, there should be a relation between different subjects involved in the programme. Within this term, we can differentiate between ILC (Integrated Curriculum of Languages) and CLIL (Content and Language Integrated Learning). On the one hand, ILC requires homogeneity in objectives, contents and methodologies of the linguistic subjects. ILC implies a deep revision of languages in the curriculum. As a result, it does not consist in losing the mother tongue, it consists in a reinforcement of learning by using it in order to achieve a higher level of competence. On the other hand, CLIL is a model of integrated and global curriculum where the linguistic areas and non linguistic areas show common points. Their teaching programmings are integrated. Some subjects are taught in a foreign language in order to learn not only the language but also the curricular contents.

Following Pavón (2009), it is important to distinguish between closed integrated curriculums and open integrated curriculums. The closed integrated curriculums are perfectly defined: the objectives, contents, assessment and methodology are previously prepared and there is a time to fulfil them. The open integrated curriculum is different. It is the school centre and their teachers who create their own independent curriculum according to their group's necessities, adapting contents and methodology. This entails a great effort for teachers in its creation. They are responsible of choosing the contents, didactic units, materials, topics and everything involved in the curriculum.

It should be clear by now that the main objective in bilingualism and CLIL is not that of acquiring the foreign language perfectly. Instead, the main objective is the acquisition of concepts and methods of each subject through a foreign language. The challenge is to create a number of activities through which the students can learn the language and the contents in an integrated way.

An important part of the integrated curriculum is the didactic sequence. It should have a basic common structure. Following Pavón (2007), it should include the following: basic information, title of the unit, transversal topics, general objectives, specific objectives, contents, unit sequencing, design, activities sequencing, assessment, materials, and bibliography. Moreover, according to Coyle, Hood and Marsh (2010), it is important to follow four steps to plan the didactic unit. The first one is the selection of the content and the context. This should be interesting for the students in order to catch their interest and motivation. It is also vital to bear in mind the linguistic and non-linguistic necessities of the students; in this point it is important to find transversal topics with common elements, to take into account the previous knowledge of the students and to consider every element of the task. As for the objectives and content, they should be defined according to the necessities, strong points and weaknesses of the students.

The second step is to connect content and cognition. It is of paramount importance “to analyse and select the thinking skills, problem solving and creativity which connect with the content. This process ensures that the cognitive level of the CLIL unit relates to the learners’ own levels of development” (Coyle, Hood and Marsh, 2010: 58).

The third step is related to communication. Teachers should bear in mind the language of, for and through learning. The “language of learning” explores what students will need to work the content and its vocabulary. The “language for learning” is the language in the context of learning. And, following Coyle, Hood and Marsh (2010) again, “the language for learning is the most crucial element for successful CLIL, as it makes transparent the language needed by learners to operate in a learning environment where the medium is not their first language” (2010: 62).

Pavón and Rubio (2010), as mentioned by Morilla García (2016), defend that when teachers have to create an integrated didactic unit, the linguistic subjects and the foreign language must be coordinated with the non-linguistic subjects. This is a crucial point to bear in mind in relation with coordination between teachers. Regarding this, it is important that teachers and everybody involved in the bilingual project understand that in CLIL the main objective is to make learning the contents through the foreign language easier. The linguistic subjects should help to achieve this aim.

5. A SUCCESSFUL CLIL: TEACHING STRATEGIES

Even if there are many concerns about to what extent CLIL is useful for students, there are also a number of researches which show how successful CLIL is for students learning. A good implementation of CLIL, according to Meyer (2010), has positive effects on the language skills of students. Moreover, in spite of what many people think, the learning of content is normally not affected negatively in this process. When bilingualism began to be developed in our schools, families were really concerned about it. They thought that their children were learning less content than before. In addition, they believed that these new contents taught in English were worse. Time has demonstrated that CLIL is beneficial not only for content but also for language subjects. Deller, following a previous suggestion by Mohan (1986), points out that “in subject matter teaching, we overlook the role of language as a medium of learning. In language learning, we overlook the fact that content is being communicated” (Deller, 2005: 29).

Some researches about the bilingual brain show positive effects of bilingualism in students. For instance, Bialystok, Craik and Luk (2012) explain that the linguistic processing of the mother tongue and the second language happens in the same parts of the brain, and the differences come from factors such as the age of acquisition and the level of exposure to the language. Their investigations also show that bilingual students who acquire their foreign language before they are six years old have a better development of both brain hemispheres, and those who acquire both languages after they are six years old have the left hemisphere as the dominant one.

Research in this field does not only consider research subjects who have considerable levels of fluency in more than one language. It also examines the impact in terms of how languages are acquired and learned, and smaller or larger exposure and levels of fluency. In these respects it has been of interest to those involved with CLIL (Marsh, 2013: 113).

According to Meyer (2010), the methodological resources and practical guidance to enable teachers to plan and teach with a multiple focus are two of the most important keys to develop and implement a successful CLIL project. They are vital for a successful integration of content and language. Coyle (1999, 2006), as presented in Meyer (2010), offers the following principles to bear in mind (4Cs-Framework):

- Content should consist not only in acquiring knowledge and skills, but also in how students create this new knowledge and develop their skills personally.
- Cognition depends on how students interpret the content, and it is related with their linguistic demands.
- Communication should be connected with a real context where students have to use the language to interact and build the content.
- Culture is fundamental to CLIL, so there should be a significant connection between cultures and language.

In agreement with Meyer (2010), there are different strategies which teachers should take into account if they want to develop a successful CLIL project, as can be seen in the rest of this section.

5.1. Rich input

The first key has to do with a rich input. Following Meyer (2010), there are three criteria to select an appropriate classroom material: it must be meaningful, challenging and authentic. When teachers select the classroom contents, these should focus on global problems at the same time that they connect with the interests and the daily lives of students. If learners feel motivated their learning will be relevant and significant. Students should have the opportunity of connecting their previous knowledge with the new ones, for this reason there should be a line which connects every subject-content, and this line should begin from their personal interest. In this way motivation in learning will play an important role and students will build significant learning. Deller points that in order to confront the students' difficulties teachers have to make the lessons active and interesting, "the activities and processes must be appealing in order to counterbalance the negative aspects of the content and language" (Deller, 2005: 30). We cannot forget that teachers should also work in order to develop the contents required in each level adapting them to the personal interests of their students. Meyer indicates that "subject learning through a foreign language works best when new topics are presented in such a way that the affective filters of the students remain wide open and when students can link new input to prior knowledge, experiences and attitudes" (Meyer, 2010: 13). In addition, in harmony with Deller (2005) this should be applied through the active involvement which requires a combination of the "talking and teaching" between teachers and students.

Another important factor is the use of motivating and illustrative materials where students can develop learning through an authentic language input. Challenging tasks are also important in order to improve creative thinking. In order to select a good material, following Leisen (2005) as mentioned by Meyer (2010), teachers should bear in mind the “multi-modal input”. When teachers offer different ways of presenting a specific content, they facilitate a deeper understanding of the content. Deller (2005) also explains the importance of the visual input to understand better the content; a good combination of texts, listening, pictures, charts, graphs, etc., is the key to achieve it:

Converting information from one mode of representation (a text) into another (a map), and from one mode of representation in L1 into one in L2 fosters both language and content learning and it also takes into account the individual needs of students’ different learning styles and their multiple intelligences (Meyer, 2010: 14).

In addition, teachers play a really important role because they should act as language role-models. In harmony with Meyer (2010), teachers have to show actively how students have to perform language operations. In spite of this, there are many teachers who face problems when they have to teach a subject in English. Going along with Deller, the main problem for them is their lack of language fluency to explain the subject matter, which causes a lack of confidence. For this reason, teachers should use the right strategies to reduce their speaking: “Successful language teaching depends on such strategies; Students need to repeat new language, process it, and most importantly use it” (Deller, 2005: 29). Interactive and communicative activities can reduce teachers’ talking and provide students with real situations to interact and build their knowledge cooperatively. This is a fundamental issue, combining teacher-directed and learner-directed activities. So teachers should provide the necessary scaffolding and motivation, especially when, as Meyer says, “in CLIL classrooms, teacher feedback, systematic and professional error treatment, is crucial for successful learning” (Meyer, 2010: 14).

5.2. Scaffolding

The second strategy is scaffolding. This has several purposes, according to Meyer (2010). On the one hand, it helps student to understand the content and language better and provides a good structure to develop tasks. On the other hand, it supports language production through given phrases, specific vocabulary, structures, collocations, etc., helping students to verbalize

their thoughts and developing their Cognitive Academic Language Proficiency (CALP) properly. Concurring with Deller (2005), one of the most important things that teachers have to do before their lessons is to prepare them analysing the lexical and cognitive demands of the topic and tasks in order to provide students with the necessary language support.

Obviously, to achieve these aims, teachers need authentic materials which are not always available and whose creation means lots of time and dedication. Teachers have to receive information and the right kind of training in order to create successful and appropriate materials. This is not an easy task because depending on the level contents are more or less complex and you should know how to adapt the language and create the correct scaffolding to ensure a good understanding on the students' part. Sometimes teachers have problems adapting a text's language and vocabulary because they want their students to understand all the words in it. According to Deller, teachers should think carefully about the way of presenting the content to enable the student's understanding, "the subject determines what language we teach, rather than vice versa. In the CLIL classroom the language really is a tool, rather than an end in itself" (Deller, 2005: 29).

Moreover, materials have to be designed so that students can understand easily what they are about or what they have to do. This concern is important, but it is also important that children can infer the meaning of new words from the context. As Meyer indicates, "students need to lose their fear of unknown words and structures" (Meyer, 2010: 15).

It is important to make our students feel proud of their advances in the process of building their own learning. Going along with Meyer (2010), this has to do with teaching students how to learn efficiently. Deller (2005) underlines the importance of teaching our students how they can learn more efficiently. In order to achieve this, it is important to develop specific study skills in every CLIL lesson, in this way students can develop better critical thinking skills. Lyster, as mentioned by Meyer, says that in order to facilitate skill learning, "instructional activities should set up contexts in which these skills can be displayed, monitored, and appropriate feedback given to the shape of their acquisition" (Lyster, 2007, quoted in Meyer, 2010: 16).

Scaffolding is crucial because it even has a clear influence on their motivation. As Meyer (2010) explains, when children understand how and in which order to proceed, they

feel better when they have to express something in English, they also have a better attitude and more interest to participate in class, so they feel more motivated.

5.3. Rich interaction and pushed output

The third strategy is rich interaction and pushed output. Taking Long's (1996) previous reflections as a basis, Meyer suggests that "feedback obtained during conversational interaction promotes inter-language development because interaction 'connects input, internal learner capacities, particularly selective attention and output in productive ways'" (Meyer, 2010: 17). Deller (2005) also suggests repetition and recapping as good ways to improve output from our students, and also working with the chunks and collocations most frequently used in the subject.

Teachers should design different tasks where interaction between the students and between the teachers and the students will be necessary and they have to use language communication significantly. For this reason, in harmony with Meyer the Task-Based Language Teaching (TBLT) "offers a wide range of methodological opportunities for EFL teaching" (Meyer, 2010: 17). The gap-principle is also an essential component of TBL. According to Meyer (2010), this is about authentic communication, and it happens when there are certain communication gaps: information gaps, reasoning gaps and opinion gaps. Moreover, there are other techniques, such as task-repetition and the innovative multiple-performance-task, where students can develop language skills significantly. In this approach, cooperative interaction is essential, and for me a fundamental point in CLIL lessons. In addition, Swain talks about 'languaging' as "the process of making meaning and shaping knowledge and experience through language" (Swain, 2006, quoted in Meyer, 2010: 19). Finally, Meyer points out that "authentic communication can be achieved in short periods of valuable teaching time" (Meyer, 2010: 19).

To sum up, teachers have to create a real context of interaction where students develop the content through using the language for real communication, in this way they can achieve a significant learning and a significant development of oral skills.

5.4. The inter-cultural dimension

The fourth strategy to take into account is adding the inter-cultural dimension. Culture is a really important factor to bear in mind if teachers want to teach in our current society with a

global methodology. Recent times demand new approaches to education: as we said before, cooperative work, multiple intelligences, attention to globalisation, and obviously with respect to bilingualism, CLIL. According to these new approaches, there are several studies which show how people cooperate better when they know each other. A globalized world demands cooperation, working in teams where different cultures will be present, so intercultural communicative competence is the key. Camerer shows that intercultural communicative competence “needs to be the ultimate educational goal and at the heart of our teaching” (Camerer, 2007, quoted in Meyer, 2010: 19-20). According to Meyer, CLIL can offer a significant contribution here. Thanks to CLIL methodology, students will learn not only how to talk about different topics, but also how they should act according to the cultural codes, the linguistic and the non-linguistic means in each context, also taking into account the importance of keeping the flow of communication going without offending the partner.

5.5. H.O.T. and thinking routines

The fifth strategy is the use of Higher Order Thinking (H.O.T.) skills. In keeping with Meyer (2010), in CLIL it is of paramount importance that all the elements developed result in different cognitive activities where students can experiment in various environments with several types or strategies of thinking. As we will see in a later section, this thought connects with multiple intelligences theory, because when we offer our students different activities in different contexts where they can develop and learn each concept in one way or another, with several thinking skills, we are referring to multiple intelligences methodology:

Michael Pohl and others explain that the revised Bloom Taxonomy can be put to use in order to level tasks according to cognitive demand and how it can be turned into a powerful tool for planning truly differentiated units by combining it with Gardner’s concept of multiple intelligences (Meyer, 2010: 21).

The implementation of thinking routines is another strategy that is in fashion in current times. From pre-primary education, students are learning to complete these thinking routines; for instance, I see-I think-I wonder, Connect-extend-challenge, or different ways of solving daily problems. When these routines happen, the language is of vital importance because through the language the learning is being developed. In Meyer’s words, Zwiers (2006) “demonstrates how academic thinking skills can easily be incorporated into one’s teaching routine and how the verbalization of these thinking skills can be fostered through various

activities and with the use of writing scripts/scaffolding frames” (Meyer, 2010: 21-22). In spite of this, we should be patient because, as Deller also points out, “in a foreign language [our students] are going to need to go more slowly, and have more processing and thinking time” (Deller, 2005: 31).

5.6. Sustainable learning

The sixth strategy is sustainable learning. This strategy is from my point of view one of the most important ones, because if we teach in a way that our students forget quickly our lessons, our work will not have been useful at all. Here come to my mind significant knowledge and motivation. As we said before, our students should feel motivated in their learning process: “One of the major justifications for introducing content-matter bilingual teaching is precisely because of the impact on attitudes and motivations” (Baetens-Beardsmore, 2009: 142). To achieve this, teachers should work with students connecting the new knowledge with the previous one, and above all with their personal interests. Moreover, contents should be presented in a clear environment and in a clear context where students can receive well-structured contents to understand each connection better. In addition, students should interact with each other in order to build the new knowledge. The whole group should share their experiences, where a combination of teacher-student and student-student communication should be present. For this reason, according to Meyer, it is important to reach from a passive knowledge to an active knowledge. Consequently, cooperative work seems to be the best option. Teachers should manage to get competent learners who can apply knowledge to solve problems and complete real tasks. Meyer points that in CLIL “sustainable teaching and learning is of great importance since teachers have to facilitate both the learning of the specific content and the learning/acquisition of a foreign language” (Meyer, 2010: 22).

5.7. Bloom’s Taxonomy

According to Forehand (2005), Bloom’s Taxonomy is a useful model to classify thinking according to six different cognitive levels. It is hierarchical, the lowest levels are knowledge, comprehension and application. The highest levels are analysis, synthesis and valuation. In more recent studies, nouns turn into verbs and some labels used for levels are also changed. The new lowest levels are remembering, understanding and applying, and the new highest levels are analysing, evaluating and creating.

Despite the changes, Bloom's Taxonomy helps to achieve skills and abilities in our students through the classification of intellectual behaviour levels in learning. According to Krathwohl (2002), as mentioned by Forehand, the structure of Bloom's Taxonomy provides a clear and concise visual representation of the educational goals, standards, objectives, activities and products. It also helps teachers to decide how to spend and organise their lessons. In addition, "it helped [teachers] to understand how their subjects overlapped and how they could develop conceptual and procedural knowledge concurrently" (Forehand, 2005: 5). It also includes high and low level thinking, multiple intelligences, problem solving skills, creative and critical thinking and ICT integration.

In harmony with Adams (2015), in relation to the lower levels of the taxonomy, knowledge or remembering refers to the retention of specific pieces of information as a consequence of events in a step-by-step process. Comprehension or understanding takes place when students can paraphrase in their own words the meaning of the information acquired. And application or applying happens when students can apply new information, that is, when they can use the knowledge, skills or techniques in a new and real situation. By contrast, in relation with the higher levels of the taxonomy, analysis or analysing consists in a more critical thinking where students can distinguish between fact and opinion, identify key words or key parts, relevant and irrelevant information, even breaking down some information into its component parts in order to identify the most appropriate search terms; synthesis refers to the creation of a novel product in a specific situation; finally, evaluation is crucial to critical thinking, at this point students should reflect, use feedback, assess the results and judge the value of the session.

5.8. The CLIL Pyramid

Finally in this section, it is important to bear in mind the famous CLIL Pyramid. According to Meyer, the CLIL Pyramid represents visually how the 4Cs-Framework should be considered in the same way in each lesson planning and materials construction: "The CLIL Pyramid suggests a systematical, tried and tested sequence for planning CLIL units and materials, starting with topic selection and ending with a review of key content and language elements that we have come to call the CLIL workout" (Meyer, 2010: 23).

This Pyramid involves all the strategies previously mentioned. Moreover, it is really connected with Bloom's Taxonomy also previously mentioned. In accordance with Meyer

(2010), in CLIL each lesson starts with a selection of contents and this is followed immediately by the material construction. A specific topic is also selected. A multimodal input is crucial to produce several materials and different learning styles which can activate various language skills. Quantity and kind of scaffolding depend on the nature of the selected input, and also on the student's level. Higher order thinking skills and real communication should be part of each task, which should be developed not only individually, but also in pair-work or group-work cooperating actively. Finally, the nature of the desired output has to do with the quantity and kind of output scaffolding.

The CLIL Pyramid offers several advantages; according to Meyer (2010: 25), these are some of them:

- ✓ There is a multifocal lesson planning (content, communication, cognition and culture).
- ✓ Higher order thinking skills are integrated.
- ✓ In the planning and teaching process the scaffolding, study skills and learning strategies are of paramount importance.
- ✓ The multi-modal input is taken into account through individual learning styles, multiple intelligences and highly differentiated lessons and materials.
- ✓ There are several ways of interaction: individual, pair and group.
- ✓ Intercultural communication is considered as an important point.

Another important point to bear in mind, following Meyer (2010), is that when teachers use the CLIL Pyramid they can establish a progression, not only with a specific content growing in concepts and information, but also between different units and different age groups.

6. CLIL BENEFITS

Nowadays we are living in a globalised world which demands a kind of education really different from the past. In the last ten years approximately, we have seen how the knowledge of a foreign language is crucial for different things, for instance to obtain a degree, to find a job, to work cooperatively, and obviously, not only to travel abroad, but also to speak with people who come to our country from different parts of the world. Businesses are more and more connected with other countries, that is, the internationalization of business is growing

and countries need people who are ready to control this new situation. This is one reason why the new generation of learners need new abilities to face these new demands of society. The new globalised world requires an integrated learning and a good command of different skills. Coyle, Holmes and King (2009) suggest that “CLIL has been seen as a means of improving knowledge of and competence in foreign language learning and teaching, and of renewing interest and motivation among school children” (as mentioned by Pavón and Ellison, 2013: 68).

CLIL is a methodology of teaching and learning which helps to improve education in general because students are not only improving their language skills, but also they are learning how to be the best in terms of problem solving, so developing better the thinking skills which will be really useful to be a decisive person for the rest of your life. In addition, contents will be learned with a sense, for this reason contents will not be forgotten easily. CLIL methodology, connected with cooperative learning, task and problem solving, thinking skills and multiple intelligences, has several benefits to the formation of this new generation of learners.

Following Pavón and Ellison (2013), CLIL and bilingualism present differences as well as similarities. For instance, Pavón and Ellison (2013: 68) refer to “a type of additive or functional bilingualism (Lessow-Hurley, 2000; Baker, 2001), which aims to add a new language to the student’s mother tongue”. The main difference between CLIL and bilingualism, then, is that in CLIL the second language is developed in an integrated way between the content subject and the language subject, and bilingualism considers the second language as an individual subject in the curriculum. So, a situation where a school centre will work the English subject as one more subject independently will be radically different from one where the English subject and the Science subject will be taught connecting objectives, contents, activities... In CLIL, teachers should cooperate because the language teacher should provide linguistic support for students in order to help them to understand better the contents worked in the content subject.

In harmony with Morilla García (2016), when students receive a bilingual education they obtain a better understanding of language and a more effective way of using it. Bilingual students in general show better results in different fields: cognitive, linguistic, neurologic, economic and social. We are going to analyse them in some detail in this section.

To begin with, cognitive advantages develop better the mental and linguistic flexibility because the students' minds are continuously active. Bilingual students are more creative and have proved to have good memorising skills. They need to control the language and its meaning and the different contexts where it can appear. Bilingual students are able to understand new vocabulary more easily and consequently they have stronger communicative skills than non-bilingual students. Bialystok et al. (2012), as mentioned by Morilla García (2016), show that bilingual students are able to solve tasks and problems better than non-bilingual students. In addition, according to Marsh (2010), as mentioned by Pavón and Ellison, "it has been demonstrated that bilinguals (...) have a better ability to memorise (...), a greater flexibility of mind, a better capacity for creative hypothesizing, the ability to avoid distraction from irrelevant information, and a greater ability to multi-task" (Pavón and Ellison, 2013: 69).

Among the cognitive benefits of CLIL in relation with bilingualism, according to Marsh (2007), it encourages "risk taking, problem-solving, vocabulary learning skills, grammatical awareness, spontaneity in using the language and motivation" (as reflected in Pavón and Ellison, 2013: 69). That is, CLIL students develop the language skill significantly because they are working a content using the language. In addition, the content is learned in a better way because students have to act in order to build their learning. When they have to solve problems to complete a task and they have to investigate and work in a group, they are the real protagonists and the consequence of this active learning process is a better understanding. Little by little, and if the coordination between teachers is good, students will improve their fluency, vocabulary, grammar, and accuracy, among other aspects.

Regarding the social advantages, it is important to highlight the fluency in communication which will help them to socialise in different languages. Currently, this is of paramount importance, because we are living in a globalised world which demands people with great fluency in different languages. Moreover, culture is positively affected too, because students are learning a second language and simultaneously they are learning its culture and they can compare it with their mother tongue and its culture. In harmony with Mehisto and Marsh (2010), as mentioned by Morilla García (2016), there is also a social advantage in bilingualism related to economy, because if students are bilingual they can normally find a better job in different parts of the world, and if more people were bilingual, the economy would expand more easily.

According to García (2009), as presented in Pavón and Ellison (2013: 68), the benefits of bilingualism in the social dimension are the following:

- The possibility of higher income or a better professional recognition.
- The opportunities coming from the ability to communicate in more than one language in a globalized world.
- The promotion of students' own identity.
- The enhancement of cultural awareness in their own culture and in the culture of the additional language.

In relation with bilingualism through CLIL, it also has some additional social benefits. For instance, Pavón and Ellison (2013) suggest that CLIL students feel more motivated in each lesson, their attitudes are more positive in order to learn new contents and they feel the necessity to improve the language skill in the foreign language because they really need it to achieve their aims, to cooperate in their class-groups, to solve problems and to complete tasks. Moreover, as I said before, when CLIL is related to multiple intelligences and cooperative work, the anxiety is reduced because they know that in one way or another they can understand the content or complete the task. Students are more interested and consequently they feel less inhibited to speak the second language.

7. CLIL TEACHERS

CLIL, like any other approach to education, can take several forms depending on different aspects. According to Pavón and Ellison, with CLIL teachers “can lean more on content-based instruction, where language teachers are responsible for bringing content matter to their classes, or they can be of the ‘language-sensitive type’, where content teachers bring the foreign language to their classes” (Pavón and Ellison, 2013: 70). So, it is of paramount importance to know and control the roles of teachers.

According to Coyle (2007), as reflected in Morilla García (2016), CLIL methodology is intended to achieve students not having major difficulties to understand curricular contents in order to ensure academic success through a second language. This does not mean there will be no problems or difficulties in students' learning. For this reason it is important to be constant and enhance significant learning. Teachers should use sound techniques and strategies to ensure a good learning easily.

CLIL success depends on many different things. According to Marsh et al. (2012), CLIL teachers should be competent in different fields. CLIL teachers should be competent, firstly, through a personal reflection supporting the cognitive, social and affective development, not only theirs but also their students'. In addition, they should understand the different links between CLIL and their practice in education in order to build significant learning. Next to this, teachers should be competent both in content and language. According to Pavón and Ellison "the teachers of content material should have sufficient linguistic competence to be able to pass on academic content in a second language as well as an in-depth knowledge of their own subject" (Pavón and Ellison, 2013: 70). They have to connect both in order to achieve successful learning. Moreover, they should have "a wide range of knowledge and skills relating to methodology and assessment in order to create meaningful and supportive learning experiences for students" (Marsh et al., 2012: 20).

Moreover, they should have enough resources and materials to provide students with the right kind of experiences where they can build significant knowledge. Scaffolding and other supporting systems are really important here. Related to this, a good CLIL classroom management is crucial too. Teachers should know how to motivate their students for learning, "it requires specific knowledge about classroom dynamics and management techniques and about how these affect learning in CLIL" (Marsh et al., 2012: 26). Another important point, as the job of being teacher entails, is that CLIL teachers should be active in order to reflect on and evaluate their teaching. In this way, they can evaluate how their students are learning and how they can improve. Finally, a good CLIL teacher should manage properly the different stakeholders: parents, students, CLIL teachers, non-CLIL teachers, administrators, etc.

Going along with Novotná, Hadj-Moussová and Hofmannová (2001), CLIL methodology has a practical nature and a flexibility which facilitate its incorporation in many ways, with different subjects, schools, languages, ages, etc. It is a fact that learning and teaching subjects in a different language than the mother tongue is taking place all around the world. For this reason, teacher training in CLIL is crucial to develop it properly. CLIL teachers should have an adequate knowledge of the foreign language, so a good training in it will be fundamental. According to Frigols et al. (2011), as mentioned by Pavón and Ellison, "the pedagogical qualification of teachers giving instruction through a second language and the accuracy of the language itself is of paramount importance for the success of these programmes" (Pavón and Ellison, 2013: 70).

Additionally, Pavón et al. (2015) mention the following two main concerns in CLIL settings connected to language input and intake:

1. How to provide linguistic support to the students.
2. The language needed for use cannot follow the syllabus organisation found in foreign language teaching.

Novotná et al. (2001) point out that it is important to know the professional competences of the CLIL teacher, that is, the attitudes and skills to teach through English or any other non-native language. Švec (1998), as mentioned by Novotná et al., points out some professional skills such as “the skill to motivate, to establish and maintain contact, to control the learning process, to stimulate and activate” (Novotná et al. 2011: 124). Also according to Novotná et al. (2001), the teacher’s competence has to involve not only the subject knowledge, but also the skills needed for its application. In harmony with Pavón and Ellison, the success of CLIL “does not rest solely on whether the teachers have a high level of linguistic and subject competence, but also on the collaboration between those teaching content subjects and languages” (Pavón and Ellison, 2013: 70). Coordination and cooperation between teachers is one of the most important facts which should be taken into account in CLIL projects. From my experience, one of the main problems nowadays is that there are some traditional teachers who are not in favour of this cooperation and these changes. They feel that the traditional method was better and the new teachers who defend these new methodologies have to fight a lot to achieve a good implementation of these new ways of working.

7.1. Roles and coordination between teachers

According to Pavón et al. (2015), to ensure a good implementation of CLIL three different kinds of coordination should be taken into account:

1. Between the foreign language teacher and the content teachers.
2. Between the different language teachers.
3. Between the different content teachers.

The role of the foreign language teacher consists in helping students to achieve enough linguistic competence to make them progress to assimilate non-linguistic contents. They can assist in the integration of content and language, in this way, students can see their subject as

a medium to understand the academic content more easily. Being in agreement with Novotná et al. (2001), teachers should have a deep knowledge of the language and they should also be careful using the mother tongue. According to Pavón and Ellison, one of the problems when the content teachers use the second language to teach is that when they feel a lack of competence to explain some parts of the lesson, they summarise the content and complete the explanation in their mother tongue in order to ensure that the contents are well processed by the students. This is initially not a bad idea, but it is against the principles of the integration of content and language:

The great challenge that teachers of non-linguistic areas face is the change in favour of a methodology that emphasizes the use of activities that promote the linguistic competence of students with a communicative end goal, and whose objective is not to teach “things”, but to teach to understand, retain and use (Pavón and Ellison, 2013: 71).

As Pavón et al. (2015) point out, the use of the first language is an effective way to contribute to understanding the content. But the question is when and how. For this reason it is important to be careful with building a solid comfort zone for the students. Deller (2005) explains that the use of the mother tongue should act as a resource rather than as a fallback. Most of the teaching time should be developed in English, but we should understand that there are sometimes when it is beneficial to combine the mother tongue in order to help understanding and memory. Another problem that content teachers suffer, in harmony with Pavón and Ellison (2013), is that when they want to help their students understanding, they provide them with lots of linguistic explanations which take longer than necessary to transmit the content.

There are also many techniques which can facilitate understanding, for example, code switching is, in agreement with Novotná et al., a natural communication strategy for students. In addition, interactive contexts are helpful because students can acquire incidental language learning:

CLIL calls for an interactive teaching style. Verbal input should be accompanied with the use of visual and multimedia aids. Moreover, young learners should be given opportunities to promote holistic ways of learning and to learn from practical, hands-on experiences (Novotná et al., 2001: 124).

Following Pavón et al. (2015), a good coordination of all the languages involved in CLIL through the application of a language integrated curriculum, with a common selection of objectives and contents by the language areas involved in the CLIL project, is really important. There should be common linguistic elements and similar communication strategies in the different classes (language subject and content subject).

Pavón and Ellison also explain that the content teacher is not a language teacher, because he or she should not teach the key aspects of the language in itself. The content teacher should help students “to use the language effectively in all the language skills when dealing with content” (Pavón and Ellison, 2013: 72), in such a way that “the content teacher should not be fully in charge of teaching the language; their role is not that of ‘policing the language’ but of facilitating its use for academic purposes” (Pavón and Ellison, 2013: 72). For this reason, among others, the coordination and cooperation between the content teacher and the language teacher is crucial.

In addition, the coordination between content teachers is quite important. Teachers should decide to have a common pedagogical model and a shared vision of how to use the language instructions. In this line, according to Coyle, Hood and Marsh (2010), as mentioned by Pavón et al. (2015), there should be language learning for grammar progression and a language for communication, obviously without forgetting about the scaffolding of basic cognitive operations.

According to Novotná et al. (2001), CLIL can activate significantly the cognitive and metacognitive processes which have a great influence on conceptualisation. Pavón et al. (2015) point that the more processing of familiar vocabulary and concepts from different content subjects the students have, the more connections are established between the new concepts and the previous contents learned, and for this reason, the easier it is to understand academic contents. Consequently, this should be another area to train in CLIL teachers. According to Novotná et al. (2001), “being able to think about something in different languages can enrich our understanding of concepts, and help broaden our conceptual mapping resources”.

7.2. Methodology changes

Changes in methodology are also important. Teachers have to change their attitudes and strategies sharing new techniques, one of which is related to cooperative and collaborative work, where motivation, interaction and implication of students are higher. Moreover, according to Deller (2005), teachers should cooperate themselves, “the language teachers have a lot to offer the subject teachers and the subject teachers a lot to offer the language teachers” (Deller, 2005: 31). Pavón and Ellison (2013) also highlight that one of the first points to take into consideration is the change from instructional to participative classes, where cooperative and collaborative work are of paramount importance. Moreover, it is important to bear in mind the use of Basic Interpersonal Communicative Skills (BICS) and Cognitive Academic Language Proficiency (CALP):

The ability to use the language for communicative purposes and the capacity to use the academic language of content matter should be treated in parallel, and content teachers, for example, should develop the correct strategies to make students employ them appropriately (Pavón and Ellison, 2013: 72).

Objectives, contents, activities, language instructions... are important aspects to bear in mind if we want to develop an effective CLIL project. According to Mehisto (2012) and to Lorenzo, Casal and Moore (2010), as mentioned by Pavón et al. (2015), integration means that all the subjects involved should contribute to the project. Each one should facilitate and support the assimilation of contents, and shared work between languages greatly benefits the interlinguistic process. Deller (2005) says that “we all have a lot to learn from each other” (Deller, 2005: 31):

The teaching of language and content is based on the integration of both, and the language teacher performs just as important a role as the content teacher because it is he/she who is responsible for helping students acquire the necessary linguistic competences to assimilate content (Pavón and Ellison, 2013: 74).

Coyle et al. (2010) also mention the 4Cs framework as a good starting point. A good connection between Content, Communication, Cognition and Culture is of paramount importance to ensure a good construction of objectives, activities, materials and every single aspect which involves a CLIL project.

One of the most important characteristics of CLIL is that it is a thinking-centred methodology: “CLIL is not just about the transmission of knowledge, but also demonstrating and understanding that knowledge, applying it, analysing it, synthesising it, and evaluating it” (Pavón and Ellison, 2013: 73). When students work through CLIL, they are involved in a real situation that requires active participation, each one of the CLIL units presents to our students a “problem” which they have to solve (problem-solving), in order to achieve this, teachers should provide different experiences where students can understand the content and use it to complete the task and solve the problem at the end of the unit. This does not only affect the content (subject-content), but also the language (language subject), for this reason a good coordination between all the teachers and subjects involved is so important: “Teachers must aim to achieve a balance of cognitive and linguistic demands when designing materials and tasks whilst ensuring the quality of subject concepts as well as providing opportunities to demonstrate and develop thinking skills” (Pavón and Ellison, 2013: 73). In addition, in this way teachers can also check how students are learning, and if the actions developed to achieve the unit’s objectives have been suitable. It is really significant to check our students’ learning when they are working in groups to complete the task and solve the problem presented, how they are using the contents studied and how they are using the language.

What is more, following Novotná et al., teachers should analyse the possible barriers that could have a negative effect on learning: “The CLIL teacher should be able to suggest ways how these could be minimised and use a variety of effective teaching strategies that would help overcome individual learning difficulties” (Novotná et al., 2001: 124). Relative to this, and also according to Novotná et al (2001), there are two main barriers to bear in mind. The first one has to do with the cognitive part: if students cannot connect their previous knowledge with the new ones, the learning will not be significant and consequently it will be forgotten. The second one has to do with affective factors: emotions have a notable influence on the learning process. Students should feel motivated, so the contents should connect with their interests. Moreover, they should feel confident, with the necessary support to avoid insecurity or anxiety.

Vygotsky, as mentioned by Novotná et al (2001), recommends the following competences that can be also useful to the new CLIL teachers:

1. Support category: verbal- visual- metacognitive: teachers should control content and language during the lessons. They should contextualise new items and present

them in a comprehensible way through auditory and visual stimuli. Moreover, they should use different techniques of teaching and learning, without forgetting about the thinking skills and learning strategies. Teachers should explain clearly, break tasks and instructions down to facilitate understanding, and connect as much as possible the previous knowledge with the new ones and above all with the personal experience of students.

2. Support category: peer- affective: the students' needs should be permanently present. Students should feel they are the protagonists of their learning, they should cooperate on building their knowledge in a significant way. Teachers "should involve learners as much as possible, build interdependence in both content and language and encourage cooperative learning as peer support is equally important in CLIL" (Novotná et al., 2001: 126). Positive reinforcement and immediate feedback are also key points for a successful CLIL.

In addition, following Pavón and Ellison (2013), other points to bear in mind are that teachers should modify the language, speaking slowly, using synonyms and antonyms, asking questions, developing thinking routines, providing visual support, etc. They should try to make their input as comprehensible as possible because in this way, our students' output will be sufficient too. A great variety of communicative functions (language for describing, explaining, exemplifying, summarising and consolidating) and strategies for checking are not only beneficial to a good teacher work, but also for students' learning. All of these aspects have an important consequence: "CLIL forces students and teachers to be more cognitively engaged" (Pavón and Ellison, 2013: 73).

8. MULTIPLE INTELLIGENCES

Throughout history there have been many definitions of intelligence. Thorndike (1920), as mentioned by Morilla García (2016), was a famous psychologist from Columbia University who defined the concept of intelligence bearing in mind three kinds of classification: the first one is social intelligence, which consists in emotional intelligence which helps us to understand the rest of people and act as human beings. The second one is abstract intelligence, which helps us to control different ideas properly; and finally mechanic intelligence, which provides the ability to understand and use different objects.

Gardner (1983) was the most relevant researcher in this field, and, thanks to his investigations, he meant a positive impact on education. He underlined the fact that humans

have different cognitive potentials. He also suggested that everybody has all the intelligences, which are not immovable, but teachable. Gardner studied a great range of people, from kids to adults, from more intelligent to less intelligent. Thanks to this, he could confirm that everybody has a wide range of capacities. Because of this, he developed the multiple intelligences theory:

The daily opportunity to work with children and with brain damaged adults impressed me with one brute fact of human nature: people have a wide range of capacities. A person's strength in one area of performance simply does not predict any comparable strength in other areas (Gardner, 1999: 31).

According to Brualdi (1996), Gardner defines intelligence as “the capacity to solve problems or to fashion products that are valued in one or more cultural setting”. Using biological as well as cultural research, he formulated a list of seven intelligences: logical-mathematical, linguistic, spatial, musical, bodily-kinesthetic and personal (interpersonal and intrapersonal). These intelligences rarely operate independently.

As Brualdi (1996) also claims, neurobiological research indicates that learning is an outcome of the modifications in the synaptic connections between cells. The seven intelligences are connected in different areas of the brain. Gardner (1983) says that, in addition to biology, culture also plays an important role in the development of the intelligences. So our society and its different cultures should be taken into account.

To my mind, a human intellectual competence must entail a set of skills related to problem solving –enabling the individual to solve genuine problems or difficulties that he or she encounters and, when appropriate, to create effective product– and it must also entail the potential for finding or creating problems –thereby laying the groundwork for the acquisition of new knowledge. These prerequisites represent anybody's effort to focus on those intellectual strengths that prove of some importance within a cultural context (Gardner, 1999).

In classroom instructions, the theory of Multiple Intelligences has several implications for teachers. They should think of all the intelligences in the same way. None is more important than another. Being in agreement with Brualdi (1996), teachers should recognize and teach a broader range of talents and skills, they should also structure the presentation of material in a style which engages most or all of the intelligences. In this way, students will

feel more successful and motivated and teachers can reinforce the same material in a variety of ways, so ensuring a better understanding of the subject content.

According to Gardner (1994), there are six different ways to work with the multiple intelligences in the classroom. The first one is the narrative way, which is implemented with those students who have a better linguistic skill and enjoy every aspect connected with it. The second one is the numeric way, which is for students who feel they have a significant attraction for numbers, sizes, proportions, calculations... The third one is the logic way, which is used with people who are able to think in a deductive way. The fourth one is the existential way, which is better for people who feel motivated with existential questions. The fifth one is the practical way, which is found in a great range of people who prefer to work any topic through manipulation and making experiments. Finally, the social way is the best way of learning when people work in groups and cooperate to achieve aims, contrasting information and interacting with each other.

When somebody is born, the seven intelligences are present in him or her. The difference is that not everybody develops the different intelligences in the same way. Everyone will have strengths and weaknesses, everyone will require a learning style in order to acquire contents and learn in life. For this reason, in harmony with Brualdi (1996) it is impossible and impractical for a teacher to accommodate lessons to all the learning styles found in a classroom. Teachers should vary the lessons with the aim of showing students how to use their intelligences to understand a subject.

When it is time for assessment, according to Lazear (1992), it is important that a teacher creates an “intelligence profile” for every student. In this way, knowing how each student learns will allow the teacher to properly assess their progress. Teachers can also make more informed decisions on what to teach and how to present information.

8.1. The influence of multiple intelligences on CLIL projects

As we have seen, intelligence is the ability to solve problems and create products. Multiple intelligences theory provides a great range of opportunities to work with our students. When we are teaching a foreign language, our students do not control the language totally, for this reason the multiple intelligences are a really useful approach to work with them. Morilla García and Pavón Vázquez (2018) present different researches which identify a positive effect

of multiple intelligences on learning and CLIL, especially in language learning, where the listening skill is the most affected.

Among these, Rubin and Thompson (1982) suggest that different contexts and situations have a significant influence on learning because in bilingual education interaction is produced between people in an environment. Research shows that both brain hemispheres involve reasoning, thinking and complex mental functioning. In connection with this, Gardner (1999) explains that all tasks, roles and products in our society require a combination of intelligences, for this reason he developed an intelligent school model based on learning as a consequence of the act of thinking, where there is a better understanding and knowledge can work significantly.

As CLIL occurs in an environment where social interaction is crucial, research shows that there is a positive correlation between Multiple Intelligences and the listening skill, where metacognitive strategies, cognitive strategies and socio-affective strategies are equally involved. This research was conducted by some researchers, such as Morilla García and Pavón Vázquez (2018: 189-190), who present it in some detail. In relation to metacognitive strategies, teachers can develop different frames for working on processes such as generating ideas, checking, self-monitoring, transferring, selective attention, evaluating, planning, note-taking, revising and drafting. Secondly, concerning cognitive strategies, specific instruction in listening comprehension performance related to inferencing, visualising, problem solving, predicting and summarization is applied. Finally, socio-affective strategies are the techniques that listeners use to engage with others, to verify understanding and to diminish anxiety.

Another important factor that helps to connect CLIL and multiple intelligences is cooperative learning. Díaz-Barriga (2002), for example, found that learning is more effective when there is empathy among students, so there should exist an environment of cooperation. Integration and cooperation are also important for the different subjects, methodologies and language instructions. According to Morilla García and Pavón Vázquez (2018), when multiple intelligences are structured in the curriculum properly, teachers can design learning in a more effective way and students can make better connections with other areas. This is a very important factor in bilingual education, in which the learning of linguistic and non-linguistic subjects is promoted at the same time. As suggested by Morilla García and Pavón Vázquez (2018: 199), multiple intelligences strategies promote a facilitating environment, so

providing a meaningful learning and social context that enables students to understand the second language and improves their cognitive development.

In CLIL it is important that the teaching programmes have a common structure where the integration of contents and language learning is essential. If this program includes multiple intelligences, it can offer our students several activities to develop their talents in a natural way. According to Arnold and Fonseca (2004), multiple intelligences have strong implications for teaching and learning. Cooperative tasks also help in this sense, not only because of personal intelligences, but also because of motivation, which can produce a more significant learning in our students.

8.2. Emotions and motivation

Our mind is influenced by the connection between our brain and our body through emotions. This relation is an important key in our students' motivation, so learning is more effective when the content connects with the emotions. According to Marsh (2009), mentioned by Morilla García (2016), bilingualism has several advantages in relation to problem-solving, abstract thinking skills, formulation of hypotheses and mental flexibility, among other aspects.

Intrinsic motivation is crucial in bilingualism. Goleman (1998), as reported by Morilla García (2016), was an important researcher who focused on emotional intelligence. He talked about a movement which pushes us to feel motivated to achieve our aims for pleasure and not for obtaining a reward. In the same line, Haidt and Seder (2009), also covered by Morilla García (2016), show how social emotion is also important, in terms of admiring the other virtues.

Our biology has an important function for how we learn, but the way we apprehend the contents of learning is also of paramount importance:

The fields of neuroscience and more broadly biology are leading education toward analyzing the dynamic relationship between nurture and nature in development and schooling. A more nuanced understanding of how biology and experience interact is critically relevant to education (Immordino-Yang and Fisher, 2010: 311).

The traditional method of education is not enough to satisfy the new necessities of our students and even to be, according to the curriculum. According to Immordino-Yang and Damasio, “the physiology of emotion and its consequent process of feeling have enormous repercussions for the way we learn and for the way we consolidate and access knowledge” (Immordino-Yang and Damasio, 2007: 128). Just when teachers consider their students’ emotions, they can achieve a significant learning in them. Emotions help to connect better with our students, and in this way we can know them better and provide them with the best for a successful learning.

Memory is also influenced by emotions. According to Goleman (1996), there are two areas in the brain and two kinds of intelligence which decide the way we act in life: a rational intelligence and an emotional intelligence. Emotions have an important influence in our lives. If we know how to work properly with emotions we can help our students to obtain real achievements in their personal, academic and professional life. Education is of paramount importance, so in this field teachers should integrate emotions in their daily lessons. If we limit our teaching to transmitting the content, as was done in more traditional methods, we are not adapting to the current times. Our students increasingly need a reflection with every lesson, that is, an emotional connection that can provide a significant meaning for the content. In harmony with Carpena (2010), mentioned by Morilla García (2016), the educative action to teach emotional competences has to be continuous and the teacher should be the vertebral point to know and follow the process of every student and to put into practice what is worked in class. In addition, it is of paramount importance to have a place where students can learn and practice some techniques to control their emotions –feeling relaxed, positive thinking, knowing emotions and naming feelings, etc.

9. DIDACTIC PROPOSAL

As has been mentioned before, after the literature review we present a didactic proposal. It is CLIL material of a natural science unit which is included in an Integrated Didactic Unit dealing with animals. The proposal was developed in academic course 2018-2019 at a school located in Jaén, where I have been a teacher for 6 years. It is important to say that because of the use of the regional administration’s “book-cheque” format, students have got a natural science book, so in addition to the CLIL material we use this book.

9.1. Justification

This proposal includes CLIL material intended for the natural science subject, an Integrated Didactic Unit (IDU) about animals, their characteristics and their classification in the different animal kingdoms. Students will discover and learn through observation, experimentation, oral and written activities and searching for information, working in cooperative groups. According to the current legislation in Andalusia, we can assess evaluation criteria C.E.1.3. – “Identify and classify living things of environment in animals and plants knowing its structure and pointing the importance of water for life”– developing values such as respecting and taking care of the environment. Through it, we can work all the contents involved and achieve the objectives which connect with it. There is a final task where students can demonstrate their learning. It consists in preparing a presentation in cooperative groups about different animals of each animal kingdom studied, and presenting it to other classmates of the school. Each group will know the animal kingdom of its group through a raffle, and they can choose the animal that they want in its kingdom to prepare the presentation. To do it, they can bring a teddy bear, a puppet or a toy representing the animal.

9.2. Contextualization

This IDU is destined to students of first stage of primary education, specifically to the second course of this stage. They are 7 years old. It is a group that has been studying in a bilingual programme from the age of 3, so their level of understanding and vocabulary is really good.

The school is located in Jaén, it is a chartered school (catholic state school) where the socioeconomic status of the families is medium-high. They are used to collaborating in everything that is needed. I am a teacher at this school and I carried out this proposal last year.

9.3. Objectives

According to the current legislation in Andalusia, and the level of students, the specific objectives for this IDU are the following:

- To know the differences between herbivores, omnivores and carnivores.
- To know the differences between viviparous and oviparous.
- To know the differences between vertebrates and invertebrates.
- To classify animals in the different animal kingdoms according to their characteristics.

- To classify animals depending on their habitats.
- To classify animals according to the different classification criteria.

9.4. Competences

According to the current legislation in Andalusia, the key competences to develop in our students are:

1. Competence in Linguistic Communication (CLC)
2. Competence in Mathematics, Science and Technology (CMST)
3. Digital Competence (DC)
4. Learning to Learn (L2L)
5. Social and Civic Competences (SCC)
6. Sense of Initiative and Entrepreneurship (SIE)
7. Cultural Awareness and Expression (CAE)

Through the different activities and dynamics in every subject involved, students can develop these competences acquiring a significant learning. The final task is crucial because it is at that moment that students will show and use the knowledge acquired.

9.5. Contents

According to the current legislation in Andalusia, the general contents related to this IDU are the following:

- Identification of differences between living-things and non-living things.
- Observation of different life forms. Identification, name and observation of living things.
- Direct and indirect observation of animals. Identification, name, and classification according to observable elements.
- Classification of animals and identification of the main characteristics and functions.
- Development of visits where students can see animals in the real environment.

Following these, the specific contents of this IDU are the following:

- Living things and their vital functions: nutrition, interaction and reproduction. Animals as living things.
- The animal kingdom: mammals, reptiles, amphibian, fish, birds, insects.
- Viviparous and oviparous animals.
- Vertebrate and invertebrate animals.
- Carnivores, herbivores and omnivores.

9.6. Timing

This IDU is programmed for four weeks. The last week will be employed to prepare the final task and its exposure to the class group. There are four lessons per week, so in total there are twelve lessons to work all the contents and four lessons to prepare and present the final products.

9.7. Methodology

The methodology is based on constructivist learning where students will build their own learning and knowledge. Units will always start from the students' previous knowledge, asking them about their interests and with questions through thinking routines. We will try to give them the right answers and guess their mistakes and correct the wrong answers. Errors will be understood as an integral part of the learning process that indicates progress. I will always deal with them in a positive and motivating way.

Students will find the answer through observation, experimentation, and cooperative learning. There will be different tasks to solve, in order to create a significant learning. Interaction between them through cooperative groups, dynamic activities, games and manipulative experiences, among others, will be fundamental. In addition, we can attend every skill and the abilities through activities which involve the multiple intelligences. In this way we also ensure that every student will acquire a real and significant learning according to their needs, interests, and abilities.

At this stage, priority will be given to oral language, verbal and non-verbal resources will be essential in order to help to create communicative contexts, in which dialogues and conversations will be fundamental tools in the daily classroom activity. Despite this, it is important not to overlook the written skill, so we will go from the oral to the written skills,

from receptive to productive skills, contextualizing all elements, using clear and realistic language and using imitation or repetition, among other techniques. Complexity will increase progressively, following the students' rhythm of evolution and attending to different learning speeds.

To develop this IDU, students will use the CLIL material that I present in this project, and the text book *Think, Do, Learn, Natural Science 2* (Oxford Education).

9.8. Materials and resources

- Student's book
- CLIL material
- Interactive board
- Ipads
- Classroom material (pencil, rubber, crayons...)
- Flashcards
- Posters

9.9. Transversality

Being an Integrated Didactic Unit, transversality is permanently present. Every content and objective (from every subject involved) connects with transversal topics, especially the necessity of taking care of animals and the environment.

9.10. Interdisciplinarity

In the same way, as it is an Integrated Didactic Unit, interdisciplinarity between all the subjects involved is evident. Every subject connects its contents and objectives around the general topic (animals) in order to contribute to a correct development and a successful and significant learning.

9.11. Evaluation

Evaluation will be developed through systematic and direct observation of the student's daily work, reviews and checking activities and tasks, rubrics and individual notes for every student.

According to Order 4/11/2015, evaluation will be continuous, global, based on different criteria, and it will have a formative character. To achieve this, it is important to take into account the three moments for evaluation, according to Order 4/11/2015:

- Initial evaluation: in order to check the students' previous knowledge. It will be developed at the beginning of the IDU.
- Continuous evaluation: in order to detect difficulties and solve them soon in order to help the student's learning. It will be developed during the IDU.
- Final evaluation: in order to check the achievement of objectives. It will be developed at the end of the IDU.

The evaluation criteria to assess in this IDU, according to the current legislation, are the following:

CE.1.1. To obtain information and experiment in cooperative groups showing results through language expression:

- CN.1.1.1. Obtains information and develops small experiences about natural elements, experimenting in a guided way.
- CN.1.1.2. Shows autonomy in the daily work, applying knowledge in daily life.
- CN.1.1.3. Works in groups and individually, respecting opinions, materials and classmates.

CE.1.3. To identify living things and classify them into animals and plants, and to value water for life.

- CN.1.3.1. Identifies living things and classifies them into animals and plants, knowing characteristics (size, colour, way of moving...)
- CN.1.3.2. Knows and values the importance of water for life.

CE.1.4. To observe living things of the environment through different instruments and to develop attitudes of respect.

- CE.1.4.1. Knows and uses different instruments to observe and study living things.
- CE.1.4.2. Shows attitudes of respect for living things of the environment.

The assessment tools will be fundamentally observation of daily work (tasks, activities, dynamics, games...) through a checklist, observation of cooperative work during the final task through another checklist, a final worksheet and the final task product and its presentation. In addition, self evaluation and peer evaluation will be fundamental. Rubrics will be used to assess each one of these mentioned aspects.

ANIMAL EXPLORERS!



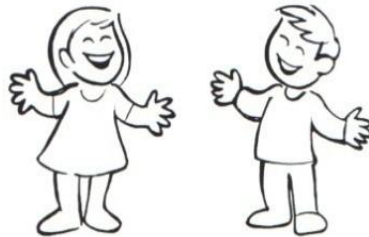
Name: _____ No. _____

1. Initial motivation. Tadeo Jones letter.

2. Brainstorming. Animal's poster. 

What can you see?

I can see...



3. Let's remember. Pp.46-47 student's book. Living and non living things. 

Living things are born, grow, reproduce and die. Living things have three life processes: nutrition, interaction and reproduction. Animals are living things. 

4. Animal kingdoms. Think and write.  

There are different types of animals:

1) Mammal _____

2) Reptile _____

3) Fish _____

4) Bird _____

5) Amphibian _____

6) Insect _____

Can you write an example of each one? (whispering)

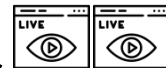
5. Video time. 

6. *Viviparous or Oviparous?* After watching the video, complete the text. (Pencils in the middle)  

- _____ are born from their mother's womb. For example:

- _____ are born from eggs. For example:

7. *Vertebrate or Invertebrate?* Video time.



8. Listen and complete the text.



backbone	birds	bones	limbs
worms	support	jellyfish	protect
fish	echinoderms	amphibians	head

Vertebrates have a _____. The backbone has a lot of _____. Bones _____ and _____ the body. Vertebrate animals' bodies are divided into: _____, torso and _____. Mammals, _____, reptiles, _____ and _____ are vertebrates.

Invertebrates don't have _____. All the invertebrates are oviparous, and we classify them into 6 groups: sponges, _____, corals, _____, molluscs, _____ and arthropods.

9. Students book pp.50-51-52-53.



10. ROLE PLAY. Choose an animal flashcard and speak with your classmate.

1. What animal is it?

1. It is a...



2. Is it
viviparous or
oviparous?

2. It is viviparous
because it is born
from their mother's
womb.



2. It is oviparous
because it is born
from eggs.

3. Is it vertebrate
or invertebrate?

3. It is vertebrate
because it has a
backbone.

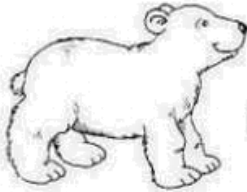
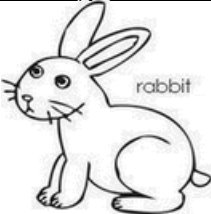
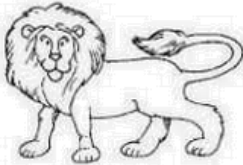


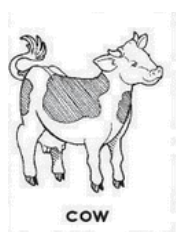
3. It is invertebrate
because it doesn't have
a backbone.

11. Video time

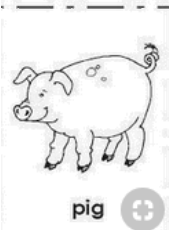


12. Animals nutrition. Read and match.

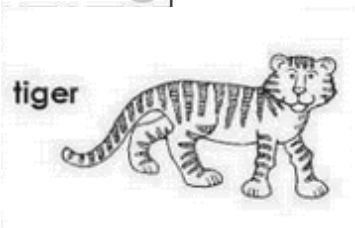
Herbivores only eat plants (leaves, flowers and fruits).	 bear	Carnivores only eat meat . They hunt and eat other animals to survive.
 rabbit	Omnivores eat plants and meat .	 lion



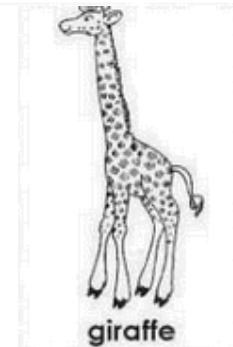
CARNIVORES



OMNIVORES



HERBIVORES

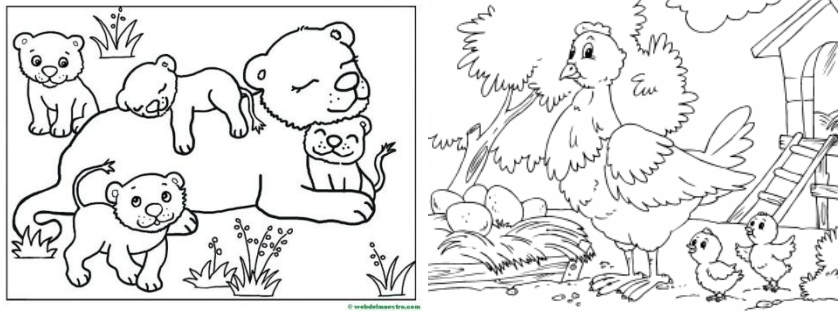


13. Students book pp.54-55.  Activities 1, 2, 3, 4, 5, 6.

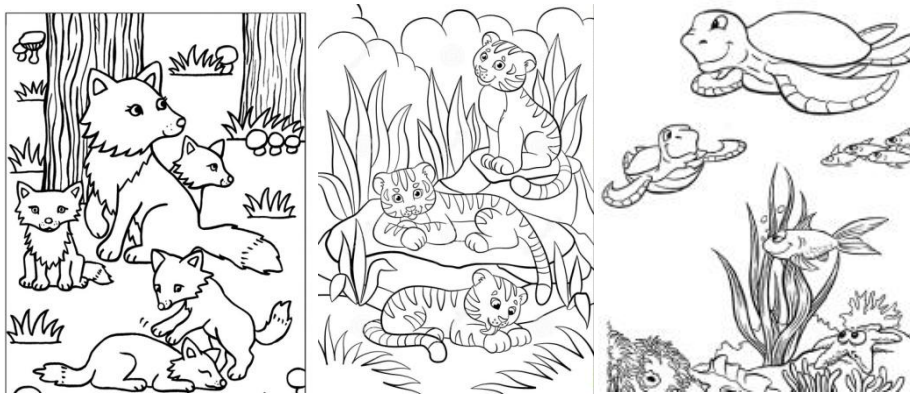
2 and 4 → whispering; 5 → 1-2-4 cooperative techniques 

14. Animals' Interaction.

All the animals **interact** and **communicate** with each other.



To **survive** animals **need to know** about the **place** where they **live**. Animals have different habitats: jungle, forest, river, sea...



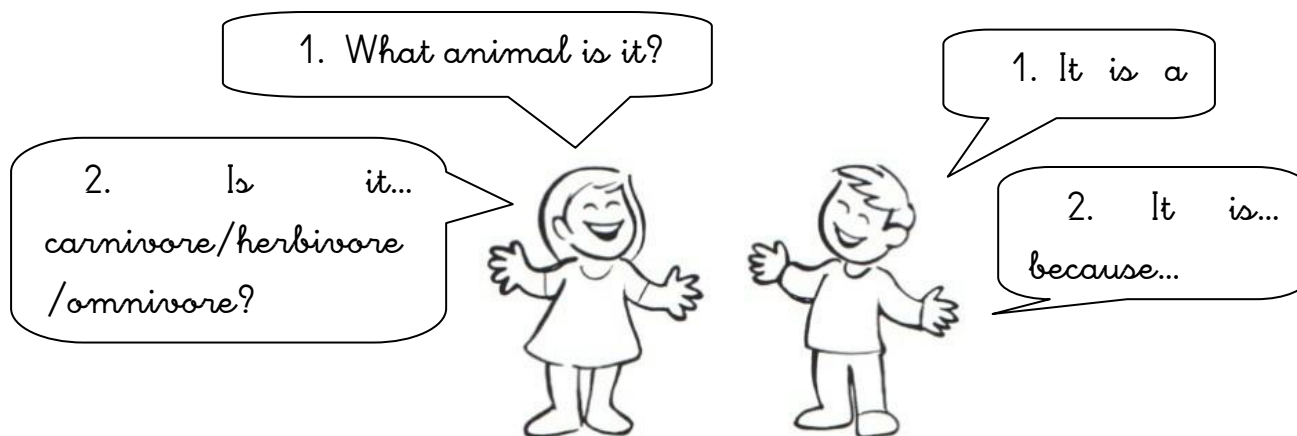
Animals use their **organs** and **senses** to know what **happens** around them and to **react** to **danger**.



15. Video time.



16. Role Play. Choose a flashcard and practise with your partner. Is it carnivore, omnivore or herbivore?



It is **carnivore** because it only eats **meat**.

It is **omnivore** because it eats **meat and plants**.

It is **herbivore** because it only eats **plants**.

17. Who am I? Describe an animal and guess!



Have in mind all that you know about animals:

- ✓ Depending on the animal's kingdom: MAMMAL, REPTILE, AMPHIBIAN, FISH, BIRD, and INSECT.
- ✓ Depending on their body: VERTEBRATES and INVERTEBRATES.
- ✓ Depending on the animal's reproduction: VIVIPAROUS and OVIPAROUS.
- ✓ Depending on the animal's nutrition: CARNIVORES, OMNIVORES, and HERBIVORES.

18. MAMMALS. Watch the video and complete.  (Pencils in the middle) 

Mammals are viviparous.

Mammals drink their mother's milk.

Mammals have hair.

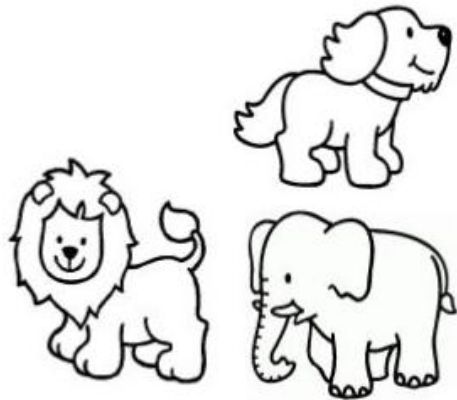
Mammals have four legs.

viviparous	womb	vertebrates	backbone	terrestrial
omnivores	carnivores	herbivores	lungs	flying

Mammals are _____, because they are born from their mother's _____. Mammals are _____, because they have a _____.

Mammals can be _____, like the pig, _____, like the lion, or _____, like the giraffe.

Mammals _____ have _____, to breathe. Mammals can be _____, aquatic and _____.



19. BIRDS. Watch the video and complete. (Whispering)



Birds are oviparous.



Birds have two legs.



Birds have feathers.



Birds can fly.



oviparous	eggs	vertebrates	meat	plants	herbivores
beak	lungs	fly	backbone	terrestrial	carnivores

Birds are _____, because they are born from _____. Birds are _____, because they have a _____.

Birds can be _____, _____, and omnivores. Herbivores eat _____, for example the parrot. Carnivores eat _____, for example the eagle. Omnivores eat plants and meat, like the hen.

Birds have _____. Birds breathe by _____. Some birds can't _____, like the penguin. Birds are _____, and some birds can swim.



20. REPTILES. Watch the video and complete.



(Whispering) 

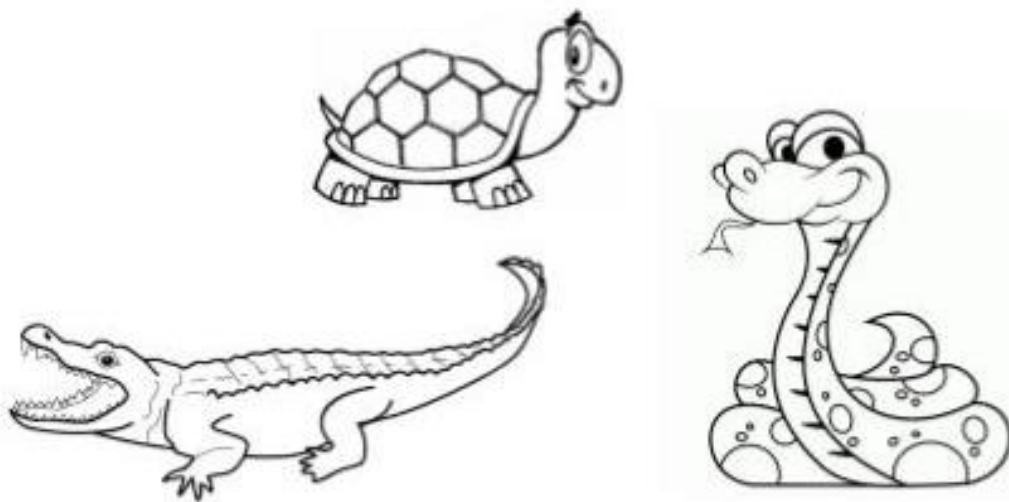
oviparous	eggs	vertebrates	herbivores	carnivores
lungs	terrestrial	water	backbone	scales

Reptiles are _____, because they are born from _____. Reptiles are _____, because they have a _____.

Most reptiles are _____, like the crocodile, but there are some _____, like the iguana.

Reptiles breathe by _____. Reptiles are _____, but there are some aquatic reptiles that live in _____.

Reptiles have a strong skin with _____.



21. AMPHIBIANS. Watch the video and complete. (Pencils in

the middle)



Amphibians lay eggs in

legs.

Amphibians have four

skin.

Amphibians have wet

water.

oviparous	aquatic	vertebrates	eggs
terrestrial	lungs	carnivores	herbivores
metamorphosis	gills	backbone	frog

Amphibians are _____, because they are born from _____. They are _____, because they have a _____.

When amphibians are babies, they are _____. When they grow up, they are _____. Their body changes in a process called _____.

Amphibians can be _____ and _____. They eat plants and insects.

Amphibians breathe by small _____ and _____. A _____ is an amphibian.



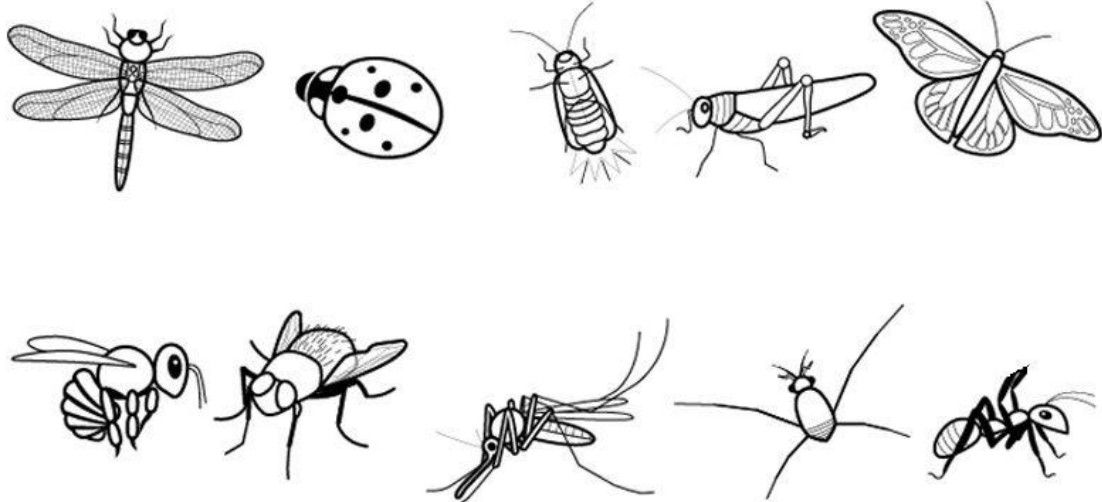
22. INSECTS. Watch the video and complete. (Whispering/)

oviparous	invertebrates	backbone
head	antennae	wings
metamorphosis	herbivores	plants



Insects are _____, because they are born from eggs. Insects are _____ because they don't have a _____. Insects are _____ because they eat _____.

An insect's body is divided into _____, thorax and abdomen. They have two _____ and six legs. Most insects have _____, so they can fly. The body changes in a process called _____. Butterflies, bees and mosquitoes are insects.



23. FISH. Watch the video and complete. (Pencils in the middle)



fins

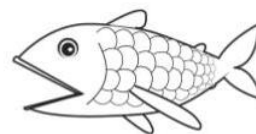
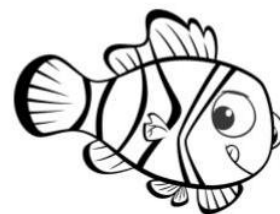
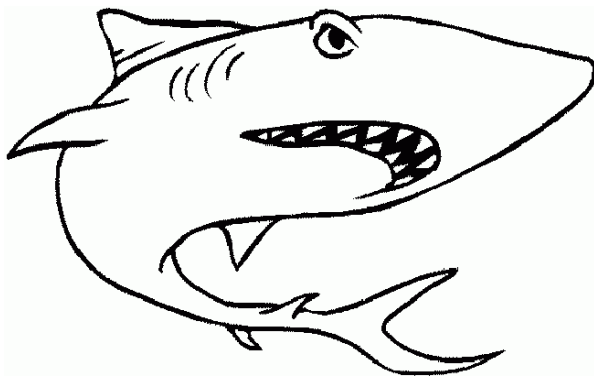


scales

oviparous	fins	scales
vertebrates	backbone	gills
omnivores	carnivores	swim

Fish are _____, because they are born from eggs. Fish are _____, because they have a _____. Fish can be _____, herbivores or _____.

A fish's body has _____ and _____. Fish breathe by _____. Fish live in the water, they are aquatic, so they can _____.



24. ANIMALS AROUND EUROPE.



Look for information about the most important animals in Europe, and note the information. Group work-Final task.

ANIMAL:

✓ Animal kingdom:

✓ Nutrition:

✓ Body:

✓ Reproduction:

COUNTRY:

CURIOSITIES:

9.13. Reinforcement and extension activities

To reinforce and extend, a power point file with all the content of the unit, audio recordings, links to videos and different images is employed. In this way students can reinforce at home what they have learned in the classroom. Also families can help their children to study. Students who need more information can take it from the different videos provided.

Moreover, thanks to the student's book *Think, do and learn*, students can complete more activities to reinforce or extend. In addition the teacher can take additional materials from the teacher resources in the digital platform when it is necessary. For instance:

The image shows two worksheets from a student's book. The left worksheet is titled '1. Trace, ... then cut out ... and stick the pictures.' and '2. What is the animal? Copy the word from the box.' It contains four boxes for drawing animals, each with a category label: 'vertebrate, mammal', 'vertebrate, oviparous', 'vertebrate, reptile', and 'invertebrate, oviparous'. Below each box is a line for the student to write 'I am a ...'. At the bottom, there are four small illustrations of animals: a spider, a bird, a rabbit, and a monkey. The right worksheet is titled '1. Trace the words. Then match with arrows.' and contains three boxes for matching: 'omnivore' (I eat other animals), 'carnivore' (I eat plants), and 'herbivore' (I eat other animals and plants). Below these are three boxes for drawing animals, each with a category label: 'What herbivores do you know?', 'What carnivores do you know?', and 'What omnivores do you know?'. Each box has a line for the student to write 'Draw one here:'.

10. CONCLUSION

From my experience as a bilingual teacher and from everything I have learned in the Master's programme, I can conclude by expressing that I really believe in CLIL materials, I really believe in bilingualism, because I am checking how students are learning in a way adapted to our current society. Obviously, teachers should be competent in the foreign language, cooperation is crucial, without forgetting about the necessary support from the headperson and the whole school. There is still a lot more to learn about it, but the key is being receptive and never saying no before checking and trying it.

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