Universidad Internacional de La Rioja
Facultad de Educación

Trabajo fin de máster

CLIL intervention proposal to improve students' oral communication in the natural science area at 5th year, through the use of cooperative learning and scaffolding

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Tipo de TFM: Intervention proposal

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Ciudad: Murcia

Fecha: 26/02/2016

Abstract

Nowadays, English language has become a basic and essential tool to function in an increasingly globalized society. In this context, the CLIL approach appears as an appropriate methodology to ensure that children and young people reach an adequate language level.

In this work we have designed an intervention proposal in the Natural Science area to help students at 5th year to improve their oral communication through the CLIL approach. We provide students with opportunities to develop their oral communication as one of the main objectives of the Primary Education is that students have to acquire communicative competence in at least one foreign language. The work also includes a theoretical study on the CLIL methodology in which this proposal is based, where we address the principles and main characteristics of this approach. Later, we mainly focus on one of the features of this methodology which is scaffolding, considering the scaffolding key features, scaffolding strategies and different types of scaffolding, of which we highlight the peer-scaffolding. In the theoretical study we also refer to cooperative learning because language learning is done with social interaction and therefore throughout the design of our intervention proposal we have provided students to work cooperatively with different types of grouping and using different cooperative work strategies.

The general aim of this Master's Dissertations is to find out how the implementation of scaffolding and cooperative learning in a CLIL context can benefit the development of our Primary students' oral communication.

Finally, we consider very interesting the possibility of extending the intervention proposal we have designed to other skills like reading, writing or listening, to other topics, subjects and other levels as could be Pre-Primary Education, Primary Education and Secondary Education.

Keywords

Content and Language Integrated Learning (CLIL), oral communication, foreign language (FL), scaffolding, cooperative learning (CL), Primary Education.

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1. INTRODUCTION

After this brief introduction section where we present the justification of the study, the analysis of the state-of-the-art, the objectives of the research and the methodology follow to meet then; this Master Dissertation (MD) consists of two main parts: the literature review and the intervention proposal. The literature review is divided into three main sections where we review: Content and Language Integrated Learning (CLIL), scaffolding, and cooperative learning (CL), in which we focus on the analysis of the main features, and how they can contribute to the development of the students' oral communication.

After this literature review, we present the design of the intervention educational proposal that we have designed. It is structured in different sections: description of the target group; its objectives and basic competences; the methodology, including the 4Cs framework; the timing of the proposal; the teaching-learning sessions and activities, as well as the suggested assessment procedure and tools. This intervention proposal is based on the implementation of the educational CLIL approach in the natural science area. It aims to provide students at 5th year with opportunities for oral communication through the use of CL and teacher and peer-scaffolding.

We finish this MD with the presentation of the discussions and conclusions we have reached after the theoretical study and the design of the intervention proposal; as well as the limitations that we have encountered and the contribution of possible lines of action and future research.

1.1. JUSTIFICATION OF THE RESEARCH QUESTION AND PROBLEM

Today's society requires mastery of other languages besides the mother tongue. The FL that predominates in Europe, in non-English speaking countries, is English. We cannot deny that it is becoming a lingua franca today, a language for education and business. The school must respond to these demands and give importance to learning English. In this sense, teaching methods have evolved prioritizing communicative competence.

Nowadays one of the most popular terminologies in the European educational context is CLIL, an acronym for Content and Language Integrated Learning. It refers to the use of a FL as a vehicle to learn the content of a school subject, more specifically, a non-linguistic subject. According to Marsh (1994), this method refers to situations where subjects are taught not in a FL but through it. CLIL has a dual target, learning content and simultaneous learning a FL. Coyle, one of the leading

researchers in the field, speaks of it as a changing agent to help transformation from monolingual into bilingual contexts (Coyle, 2013).

In the CLIL classroom teachers have to help learners with the content and with the language. The support or assistance that teachers provide to the learners is known as "scaffolding". In acquiring a FL, scaffolding is a key element of effective teaching instruction (Walqui and van Lier, 2010). It also plays an important role since students need to process and express complex ideas in an additional language (Llinares, Morton & Whittaker, 2012). Scaffolding does not only come from the teacher, pupils can help scaffold for other pupils. This is why it is so important to include sufficient amounts of CL in our lessons. It is particularly beneficial for any student learning a FL. CL activities promote peer interaction, which helps the development of language and the learning of concepts and content.

In the classrooms, students are well prepared in grammar and reading, since the lack of time makes oral skills those least work. However, if we want our students to master the FL we have to work all the skills. In addition, one of the main objectives of the Primary Education is that students have to acquire communicative competence in at least one FL enabling them to understand and express simple messages in everyday situations. For these reasons, we will design an intervention proposal to provide students with more opportunities to develop their oral communication.

1.2. BRIEF ANALYSIS OF THE STATE-OF-THE-ART

CLIL seeks to contribute to improving the linguistic competence in a FL, through the development of skills and strategies for communication. This approach does not focus on the teaching of the language, but in the use of the FL as a means of communication. In a CLIL classroom language becomes a tool of communication, so that learning is more motivating for the students and at the same time, they develop a more positive attitude towards the FL, its speakers and culture.

As Vygotsky (1978) stated language learning is done with social interaction because he believed that knowledge is built through interactions with others in social environments. For this reason, we have especially considered two of the CLIL core features (scaffolding and CL) developed by Mehisto, Marsh and Frigols (2008). We think both core features are especially important because they allow us:

- To provide students with a supportive learning environment and to foster autonomous learning.
- To create an atmosphere in which students will have an active role in their learning.

- To create and promote opportunities for students' interactions in which they will have to use the FL.
- To address the students' individual differences and meet the different learning styles (Casal, 2006; as cited in Pistorio, 2010).

In general, in the literature review section we review the 4Cs conceptual framework, developed by Coyle, Hood and Marsh (2010), that helps us to plan and to design the intervention proposal. In addition, we analyze how and why we should implement the scaffolding and CL in a CLIL context to get an improvement of students' oral communication.

1.3. AIMS

In this MD we have set a number of aims, these are classified in two categories: general and specific.

The general aim of this MD is to design an intervention proposal to provide 5th year primary students in a CLIL context with chances to practice and have conversations in the FL through scaffolding and CL.

Specific aims:

- To study the CLIL principles and core features.
- To review scaffolding in the context of CLIL.
- To analyze CL in the CLIL context and its possible contributions.
- To integrate CLIL, scaffolding and CL in the design of the intervention proposal.

1.4. METHODOLOGY

In this section we describe the methodology we have followed to achieve the proposed objectives described above. As mentioned in the introduction, this MD is composed of two main parts: a theoretical background and an intervention proposal. The theoretical framework sets up the foundation of the design of the proposal in which we refer to different authors and approaches which help us to build our knowledge on the issues addressed in the intervention proposal (CLIL, scaffolding and CL).

The intervention proposal has been designed taking into account the above concepts and the use of the 4Cs conceptual framework developed by Coyle et al. (2010). This intervention proposal has been designed with the aim of providing students with opportunities to develop their oral communication in the Natural Science subject. It has not been carried out and therefore we cannot verify if we could meet the aim proposed with this intervention proposal. However, we expect

that through the use of CL and scaffolding in a CLIL context students could improve their oral communication.

2. LITERATURE REVIEW

The literature review consists of three main sections. In the first section, CLIL is defined and a general introduction of it is provided. In this section the 4Cs framework and the CLIL core features are also considered.

The second section comprises an analysis of scaffolding and its link with the Vygotsky's Zone of Proximal Development (ZDP). In this section we also see the scaffolding key features and different scaffolding contexts in which students have opportunities to learn in a different way.

In the last section, a review of the foundations of CL is provided and then different definitions according to different authors are provided. We also explain different types of CL and strategies to work in the CLIL classrooms.

2.1.CONTENT AND LANGUAGE INTEGRATED LEARNING

In this section, we start defining CLIL and we provide a brief general introductory picture of it. After this, we consider a conceptual tool developed by Coyle et al. (2010) called the 4Cs framework. Finally, we define the CLIL core features that a CLIL teacher should consider to plan a CLIL lesson.

2.1.1. An introductory picture of CLIL

As we have said in the justification, Content and Language Integrated Learning (CLIL) is a methodology that integrates content and language. It helps students to acquire language through natural forms of communication related to many subjects. According to Coyle et al. (2010), CLIL is an educational approach focused on content and on language. In this approach an additional language is used as a tool for learning and teaching content and language at the same time.

Content and Language Integrated Learning is called differently in each country. In France the combination of content and language learning is known as *Enseignementd´une Matière par I´Intégration d'une Langue Etrangère* (EMILE), in Germany, it is known as *Content and Language Integrated in German* (CLILiG), whereas in Spain, it is known as *Aprendizaje Integrado de Contenidos y Lenguas Extranjeras* (AICLE).

As far as its context is concerned, CLIL in Europe is featured by a great diversity in its implementation. CLIL differs from regions within a country, but also along

schools in any given town. This situation is closely linked to the autonomy given to countries and schools, it is also linked to the lack of a blueprint, regulation or official guidelines regarding its implementation.

CLIL does not mean that teachers teach academic contents in a language but through it. "Achieving this two-fold aims call for the development of a special approach to teaching in that the non-language subject is not taught in a foreign language but with and through a foreign language" (Euridyce,2006, p.8).

On the other hand, Coyle et al. (2010) proposed the use of the 4Cs conceptual framework as a useful tool for planning, designing and organizing CLIL. It integrates four contextualised blocks, by means of which content and language become integrated within a context. The 4Cs corresponds to the following 4 principles:

1). Content. This term is used to describe the subject area that will be taught in a FL: Science, History, Art, Music, Physical Education and so on. CLIL was meant to act as a method for teaching an additional language, in the context of our study English. The content matter is more important than the language. On the other hand, content is not only about acquiring knowledge and skills, it is about the learners creating their own knowledge and understanding.

2). Communication. It involves CLIL teachers and learners in using and developing: language of learning, language for learning and language through learning. The three intertwine and rely on each other to produce meaningful communication. The Language Triptych (Coyle et al. 2010) helps to analyze the CLIL vehicular language from the three perspectives mentioned previously.

- Language of learning refers to the language directly related to the content that students need to access. For example, if we are working in the energy unit, the content language would be: mechanical energy, kinetic energy, potential energy, electrical energy, and so on.
- Language for learning is related to interpersonal communication. It focuses on the language needed to enable students to use interpersonal English while working in pairs or groups. For example, if we want the students to do an experiment, they need to know the language of working as a team, following directions, asking questions, agreeing and disagreeing, and so on.
- Language through learning is when the students build, organize and formulate their own comprehension; language learning takes place in a deeper and more meaningful way. For example, when students present

orally projects using digital tools or when they use dictionaries to make a glossary or an essay.

3). Cognition. It refers to the critical thinking skills that students use to engage with and understand course content, to solve problems, and to reflect on their learning. Cognition is a very important component in CLIL. None of the other components of CLIL mean anything if the cognitive one has not been activated.

4). Culture. It is related to the question of the identity, citizenship and progression towards intercultural understanding. In the general sense, it is related to different societies and their traditions: dance, music, food, holidays, beliefs, art, architecture, ceremonies and ways of communicating. Culture will help to make the content we are teaching come to life (Coyle et al., 2010).

2.1.2. CLIL core features

As we have seen, this approach appears to encourage an improvement in the results of the acquisition of the FL and it demands a change in methodology due to its peculiarities. For this reason, it is necessary to establish the fundamental characteristics (multiple focus, safe and enriching learning environment, authenticity, active learning, co-operation and scaffolding) that were developed by Mehisto, et al. (2008). The following is a more detailed explanation of these characteristics.

- **Multiple focus** methodology. It focuses on learning the language through content and learning the content through language. To do this, the learning has to be organizing through cross-curricular themes and projects.

- It allows the creation of a **safe and enriching learning environment**. In CLIL we use routine activities and discourse, showing the language and content in the classroom. We provide students with authentic materials and learning environments in which they can experiment with the language and content.

- It is characterized by the **authenticity** of the materials and activities. CLIL allows students to ask for the language help they need. CLIL activities enable them to make connections between learning and students' lives as well as connections with other speakers of the CLIL language.

- It promotes active learning. Students have a central role in CLIL lessons as they are active participants and responsible for their own learning. Then, teachers become a facilitator of learning. Students help to establish content, language and learning skills outcomes. They evaluate the progress and results, encouraging CL among peers.

- It is developed in **co-operation**. It is recommended cooperation among CLIL and non-CLIL teachers when they plan courses and lessons to create materials, among others. Besides, it is also useful involve parents and the local community in CLIL.

- It uses **scaffolding strategies**. As we have already introduced before, it refers to the temporary support that teachers provide students to complete a task they could not achieve on their own (Gibbons, 2002). One of the advantages of scaffolding is that it not only provides for a supportive learning environment, but also caters for mixed-ability groups and fosters autonomous learning. When teachers make use of scaffolding in the classroom, they become a mentor and facilitator of knowledge. This teaching style leads students to take a more active role in their learning. In the next section, we are giving a more detailed development of scaffolding.

2.2. SCAFFOLDING

In this section we start talking about the notion of scaffolding in the CLIL context and its link with the Vygotsky's Zone of Proximal Development (ZDP). Later, we explain the key features of scaffolding according to Hammond and Gibbons (2001) and van Lier (1996). After that, we see different scaffolding strategies according to Sharpe (2008) and Alibaly (2006). Finally, we see different contexts, apart from the teacher-student relationship, in which students have opportunities to learn in a different way.

2.2.1. Scaffolding in the CLIL context

Scaffolding was originally introduced by Bruner in the late 1950s and developed in parallel to Vygotsky's ZDP (Wood, Bruner & Ross, 1976). As we have stated above, in the classroom this metaphor describes the temporary support structures teachers use to assist students in accomplishing new tasks and concepts they could not achieve on their own. Once students are able to master or complete the task, the scaffolding is gradually removed –there is a shift in the responsibility of learning

from the teacher to the student. The relationship between the expert (teacher) and novice (student) is the most common one, but not the only one.

As mentioned, the notion of scaffolding is associated with Vygotsky's ZDP. It is the distance between the real level of development of the student and his/her capacity to solve problems independently, and the potential level in which the student can solve problems when assisted by the teacher or a more knowledgeable peer. Vygotsky emphasized that language learning is done with social interaction because he believed that knowledge is built through interactions with others in social environments. Vygotsky believed that when students are in the ZDP is the best moment to instruct or guide them. If teachers provide students appropriate support they will accomplish the task.

One of the advantages of scaffolding instruction is that it not only provides for a supportive learning environment, but also caters for mixed-ability groups and fosters autonomous learning. When teachers make use of scaffolding in the classroom, they become more of a mentor and facilitator of knowledge rather than the monitoring content expert. This teaching style leads students to take a more active role in their own learning. Students share the responsibility of teaching and learning through scaffolds that require them to move beyond their current skill and knowledge levels.

Scaffolding in CLIL is very important because more strategies are needed to support understanding of both content and language. One of the biggest challenges of learning a content area through an additional language is how to make sure students have sufficient language resources to match the complexity of the concepts they are learning about. That is why careful scaffolding is essential.

2.2.2. Scaffolding key features

There are some important features in the use of the term, regarding their educational dimension. Hammond and Gibbons (2001) identify three key features of scaffolding:

1. Extending Understanding.

   The aim of the teacher who provides scaffolding is not only to help the learner to acquire new knowledge (in this case concerning the use of the FL), but also provide the learner the help and support they need to be able to receive the new content, internalize it and apply it to himself in different situations or contexts.

2. Temporary support.

Scaffolding has a temporary nature. Teachers have to know what their students know or do not know at the beginning of an activity to use the effective teaching strategies. Then, teachers provide gradually support to students. It is very important that teachers know when their students have reached the level of knowledge and practice to work autonomously. When this happens the teacher will go removing the scaffolding to let students work independently. As students are studying in a FL, it is common the presence of students with different levels in the use of the language, in such situations the teacher should be able to provide scaffolding of a truly effective way to address the needs of different students.

3. The scaffolding has two levels: macro and micro.
   Scaffolding focuses on students' levels of understanding and on tasks. The macro level includes designing a sequence of tasks and the specific resources that will be used for development, and take into account the objectives of teaching, the knowledge and skills of the learners before starting the sequence, the interest they can show for the new sequence.

The micro level includes those moments in which the teacher must be able to recognize, during his daily intervention, where scaffolding is needed and provide it. In addition to the previously features mentioned, Van Lier (1996) states that the scaffolding done in an educational context is also characterized by:

- Continuity: Tasks are repeated but with variations and related to others.
- Contextual support: The environment in which the scaffolding is provided must be safe and caring.
- Intersubjectivity: Relationship of trust and support between teachers and learners is established.
- Contingency Task: Procedures depend on actions of learners. Contributions are oriented towards each other.
- Handover/takeover: The scaffolding is also characterized by expanding the role of the student according to his skill and self-confidence.
- Flow: The skills and challenges of students are in the balance. The students focus on the task and are in tune with each other.

2.2.3. Scaffolding strategies

There is a large amount of scaffolding techniques that reveal ways to help students. It is the task of the teachers choose one or another strategy depending on the students' needs, their linguistic abilities and the material teacher have to cover.

Sharpe (2008) explores the ways in which teachers support their students' understanding through several discourse strategies. These strategies are:

- Repeating, recasting and recontextualising. Repeating refers to when the teacher repeats what the student has said showing that the response is appropriate as well as creating cohesion in the text word or words into more technical ones. Recasting refers to when the teacher reformulates all or part of what the student has said wrong, in the right way, but without saying explicitly it was wrong. Recontextualising is when the learner says something and the teacher places it in other context, for example, the subject field. .
- Cued elicitation refers to when the teacher is talking or explaining contents and he/she is leaving a discourse space for students to complete the missing word. It is a device that active students' participation.
- Teacher questioning. Questions typically follow three moves: Initiation – Response- Follow-up (IRF). For example:
    - I - What is four plus four?
    - R- Eight.
    - That's right. What other combinations can you use to make eight?

In IRF there are two typical types of questions: display and referential. The first ones are typically used to structure content-oriented classroom talk. In this type of questions we are asking for the content students have studied. For example: In which year Columbus discovered America? On the other hand, in referential question we are not asking about facts, we are fostering creativity and critical thinking. For example: what's the meaning of this xx? With this type of questions the teacher does not know the answer that the students will provide.

- Recycling language. Teachers introduce vocabulary and contents and later on they would be back to it, we mean, teacher use and reuse the key words throughout the lessons.

As we all know, when students perform activities may encounter problems. However, some students could have problems or difficulties in some things and others in another. Moreover, these difficulties may have can occur at different times depending on the students. Alibali (2006) suggests a variety of scaffolding strategies to use with students of different knowledge and at different times. Table 1 presents scaffolding strategies and ways in which they could be used.

Table 1. Scaffolding strategies (Source: Allibali, 2006)

Scaffolding strategies	Ways to use scaffolding
Advance organizers	*Tools used to introduce new content and tasks to help students learn about the topic:* Venn diagrams to compare and contrast information; flow charts to illustrate processes; organizational charts to illustrate hierarchies; outlines that represent content; mnemonics to assist recall; statements to situate the task or content; rubrics that provide task expectations.
Cue Cards	*Prepared cards given to individual or groups of students to assist in their discussion about a particular topic or content area:* Vocabulary words to prepare for exams; content-specific stem sentences to complete; formulae to associate with a problem; concepts to define.
Concept and mind-maps	*Maps that show relationships:* Partially or completed maps for students to complete; students create their own maps based on their current knowledge of the task or concept.
Examples	*Samples, specimens, illustrations, problems:* Real objects; illustrative problems used to represent something.
Explanations	*More detailed information to move students along on a task or in their thinking of a concept:* Written instructions for a task; verbal explanation of how a process works
Handouts	*Prepared handouts* that contain task- and content-related information, but with less detail and room for student note taking.
Hints	*Suggestions and clues to move students along:* place your foot in front of the other, use the escape key, find the subject of the verb, add the water first and then the acid.
Prompts	*A physical or verbal cue to remind—to aid in recall of prior or assumed knowledge. Physical:* Body movements such as pointing, nodding the head, eye blinking, foot tapping. *Verbal:* Words, statements and questions such as Go, Stop, It's right there, Tell me now, What toolbar menu item would you press to insert an image?, Tell me why the character acted that way.
Question Cards	*Prepared cards with content- and task-specific questions* given to individuals or groups of students to ask each other pertinent questions about a particular topic or content area.

Question Stems	*Incomplete sentences which students complete:* Encourages deep thinking by using higher order –What if questions.
Stories	*Stories relate complex and abstract material to situations more familiar with students:* Recite stories to inspire and motivate learners.
Visual scaffolds	Pointing (call attention to an object); representational gestures (holding curved hands apart to illustrate roundness; moving rigid hands diagonally upward to illustrate steps or process), diagrams such as charts and graphs; methods of highlighting visual information.

2.2.4. Beyond the teacher-scaffolding

When we have talked about the ZDP and scaffolding, we have referred to a more knowledgeable person (teacher) who offers his/her support to a less knowledgeable person (student). Students are assisted by an expert, they receives guidance, advice and modeling. The relationship between the expert (teacher) and novice (student) is the most common one, but not the only one. There are others types of scaffolding, such as the relationship between equal peers (support provided from one student to another student). Students collaborate with other learners to accomplish a task, achieve the goal of this task, discover new things and they also construct their learning together. This kind of scaffolding was called "collective scaffolding" (Donato, 1994; Moll, 1990).

Besides the two types of scaffolding mentioned above, van Lier (2004, as cited in Walqui, 2006) suggests two more types of scaffolding in which students can work inside their ZDP:

- The interaction with less-capable peers. Students assist other lower-level learners and both have opportunities to learn. When a student helps a less capable peer, he/she has to be very clear knowledge and organize her/his thoughts to explain it to their less capable peers.
- Students work alone, when internalized practices and strategies, inner speech, inner resources and experimentation are used. "A learner can internalize teaching and learning strategies, rely on inner resources, and experiment and try new angles, in a self-directed way" (Walqui 2006, p. 168).

As Vygotsky stated, language learning is done with social interaction. Therefore, the CLIL teachers should create opportunities for students to participate in interaction in different ways. An authentic integration of content and language

implies that students take an active role in their learning. In this way, scaffolding allows them to take a more active role by learning and teaching their peers by working together because a teacher who scaffolds becomes a facilitator of knowledge. CLIL teachers should foster an atmosphere of cooperation in which students collaborate with each other to construct their own learning.

2.3. COOPERATIVE LEARNING

In this section we start talking about the foundations of CL. After this, we define CL according to different authors and approaches. Later, we talk about three different types of CL according to Johnson, Johnson and Holubec (1999). After that, we explain the essential elements that must be incorporated in each class for successful CL. Finally, we define some CL strategies to work in the CLIL classrooms and we explain the reason why we have chosen these strategies and no others.

2.3.1. Foundations of cooperative learning

The LOMCE (Ley Orgánica para la Mejora de la Calidad Educativa) is the main current Spanish education law. It is a modification of the LOE (Ley Orgánica de Educación) in which it add, replace or modify articles.

LOMCE introduces into the curriculum seven key competencies (competence in linguistic communication, mathematical competence, digital competence, awareness and cultural expressions, competence in learning to learn, the social and civic competence, sense of initiative and entrepreneurial spirit. The last three competences seek to develop skills such as knowing how to communicate in different contexts, expressing one's own ideas and listen to others, being able to learn autonomously or having their own specific criteria to transform ideas into action. These are skills important for teamwork. It is one of the strongest demands of nowadays society to school, training students to work in groups maintaining positive relationships with others (Cerdá-Vallés & Querol-Julián, 2014).

However, we have to distinguish between different forms of learning, following Ferrerio and Calderon (2006), we can talk about:

- Individual learning. The communication and exchange between members of a group is not encouraged. The objectives are individuals and are attained through individual work and effort.

- Competitive learning. In this type of learning it is perceived that to achieve a teaching-learning objective the rest of the students do not have to achieve it.

- Cooperative learning. A student achieves the teaching-learning objectives if their peers achieve their objectives as well, and together they build the knowledge learning from one another. This learning contributes to the attainment of basic skills and general objectives of education at all educational levels. CL facilitates the involvement of all students because it requires all students assume some functions to achieve a goal, as opposed to other techniques that, often, do not get more than the participation of a few students that come to dominate the session. The main procedure for learning is the communication and, therefore, the language.

CL has been largely outlined by several authors with numerous approaches. According to Johnson et al. (1999) CL is when students work together in small groups to maximize their own learning and that of others. In a cooperative situation, students try to obtain results that are beneficial to themselves and to everyone else. They indicated that CL is clearly differentiated from competitive and individualistic learning as Ferreiro (2007) stated.

Casal (2008) stated that CL could contribute to the improvement of a CLIL context because it facilitates the development of higher order thinking and also because it provides opportunities for learners to share their knowledge, opinions and ideas through social interaction with their peers.

As it has been explained above, students may be more successful than the professor to explain certain concepts to their peers. The fundamental reason is that students are closer to each other with respect to their cognitive development (the ZDP set out by Vygotsky). On the other hand, not only students who learn benefit from the experience, but also the students who explain the matter because they get a better understanding.

The cooperative work in small groups can offer a more comfortable and friendly setting to develop the students' oral communication skills, since they do not have the fear of speaking in public to the whole class. On the other hand, when students are working in teams, they need to make use of the FL to communicate and discuss. Therefore, learners need to use the language to understand and to be understood.

CL may be beneficial in CLIL contexts since it encourages students to pursue common objectives, as well as to care about others, as opposed to a more individualistic or competitive attitude. It also allows students to develop civic skills, such as dialogue, adopt multiple perspectives of things, judge and act collectively on issues of common interest and develop leadership capacity.

Furthermore, Casal (2006; as cited in Pistorio, 2010, p.3) stated that "CL promotes interaction and facilitates the development of cognitive and personal growth. Therefore, students' learning, retention and academic achievement improve". Casal also established that CL addresses the students' individual differences and therefore meet the different learning styles.

On the other hand, Mehisto, et al. (2008) stated that when teachers make use of CL the FL is learned faster since students have opportunities to communicate, develop successful life-long learning, and make connections with society.

2.3.2. Types of cooperative learning

Following Johnson et al. (1999) there are three types of groupings: formal groups, informal groups and cooperative base groups. Table 2 shows a summary of the main features of these groupings.

Table 2. Key features of the different types of groupings

	Formal groups	Informal groups	Cooperative base groups
Duration	From one lesson to several weeks	From a few minutes to an hour	Long-term (one year or more)
Possible implementation	Any task and subject	For a direct teaching activity	For the whole academic year
It consists of:	Students work together to achieve shared learning goals	It is usually a brief chat between students before and after class, or dialogues between pairs for a few minutes during the course of the activity	Heterogeneous learning groups, with permanent members, who help each other to achieve academic success
Achievement	Active participation of students in the work of organizing information, summarizing it,	Create expectations about the content Promote a climate that is conducive to the learning Focus students' attention on the	Establishment of responsible and lasting relationships that motivate students to strive in their work and development

	and integrating and communicating knowledge	issue	
		Ensure students' active participation in the tasks of organizing information, summarize it, communicate it and integrate as knowledge	

When students work in groups in the CLIL context, the use they make of the FL has a communicative end in itself, as students should make decisions about the tasks they have to perform, the role that each student will have, they exchange ideas and opinions, etc. In this way, they create a context where the language is not the study center but a necessary tool to acquire knowledge.

Students' grouping must be flexible to adapt teaching to the different paces of learning, the needs, the interests and the individual characteristics of students. Using different grouping (different types of groups with different members) we will ensure that all students have equal opportunities to actively participate because we have to keep in mind that in every group we always find more extroverted and participatory students and others more introverted whose participation is lower. In this way, we could pay attention to the different paces of students' learning and to the different learning styles.

2.3.3. Key elements of successful cooperative learning

Place students into groups and expect them to be able to work together is not necessarily promote cooperation (Gillies, 2014). Johnson et al. (1999) state that for cooperation to work well, there are five essential elements that must be explicitly incorporated in each class:

1). Positive interdependence. The teachers have to propose a clear task and target group. The members of each group should know that the efforts of each member not only benefit himself/herself but also the other group members. This positive interdependence creates a commitment to the success of other people besides his/her own, which is the basis of CL. If there is not positive interdependence, there is no cooperation.

2). Promote interaction. Students should perform together a task in which each student promotes the success of others, sharing existing resources and helping, backing, encouraging and congratulating each other for their efforts to learn. The learning groups are both an academic support system and a system of personal support. To personally promote the learning of others, group members take on a personal commitment to each other as well as with their common goals.

3). Individual accountability. The group must take responsibility for achieving their objectives, and each member will be responsible for doing the part of this job. The group must have clear objectives and should be able to evaluate:

- The progress made in achieving these objectives.
- The individual efforts of each member.

Individual accountability exists when the performance of each individual student is assessed and the results are given back to the group and the individual, in order to determine who needs more help, support and encouragement to carry out the task.

4). Interpersonal and small-group skills. CL is more complex than competitive or individualistic, because it requires that students learn both academic subject matter (task-work) and interpersonal and group practices necessary to function as part of a group (teamwork). Group members should know how to exercise leadership, decision making, create a climate of trust, communicate and manage conflicts, and must be motivated to do so. The teachers will have to teach the practices of teamwork with the same seriousness and precision that they teach school subjects.

5). Group processing. It takes place when group members analyze and discuss how well they are achieving their goals and how effective are the relationships between the group members. Groups should determine which actions of its members are positive or negative, and make decisions about what behaviors to keep or modify. For the process of steadily improve learning, you need to carefully consider how members are working together and how they can enhance the effectiveness of the group.

2.3.4. Cooperative work strategies

There is a wide range of CL strategies that can be used in the classroom for active engagement. Kagan and Kagan (2009) developed more than 30 different strategies. However, we just focus on those that have been used throughout the design of the intervention proposal.

- Think-pair-share. It is a CL strategy that provides students with time to think individually before working with their partner. Students think in three different steps:
    - Think: Students think silently about a question from the teacher.
    - Pair: Students pair up and exchange what they previously thought.
    - Share: Student pairs share their ideas and what they have thought to the rest of the class.

We have chosen this strategy because it is difficult for many students to stand in front of the class and present their ideas or thoughts. In this way, students will be accompanied by a partner so they could feel more comfortable presenting their ideas and thoughts. Besides, students can collaborate with their partners and provide support to construct their learning together, to give advice or to help to achieve the goal of a task.

- Numbered head together. In this CL strategy the students have to work in small groups of four or five students. The first thing they have to do is list the group members. After that, the teacher asks a question and gives time. The groups work together to answer the question and ensure that everyone in the team can answer the question. Finally, the teacher calls a number. The student with that number from each team will have to orally answer the question.

We have chosen this strategy because all the group-mates have to work together to ensure all students have understood the content. As it is a game and everyone wants to win, all students will be interested in learning the content to answer the question. Besides, with this CL strategy peer scaffolding arises since the more knowledgeable students can help the rest of his group-mates and also the interaction with equal peers that collaborate to accomplish and achieve the goal of the task and to construct their learning together.

- Tea party. It is a CL strategy in which students can discuss different issues with different partners. For this strategy, students have to form two lines facing each other. Then, the teacher asks a question and students have to discuss the answer with the student they are facing. After a few minutes, one line will move to the left or the right so students will have new partners. Then the teacher will ask a second question for them to discuss and so on.

We have chosen this strategy because when students work in pairs they have less shame and less fear of making mistakes that when they have to work with more classmates. When students work in pairs they feel less nervous than when they work

in groups because there are less people waiting for their response or how well or bad they can perform a particular task. On the other hand, this strategy allows students to work with different partners what helps them trailing the shame and get used to working with different students.

In the CLIL context students have a central role as they are active participants and responsible for their own learning. CL strategies allow students to take a more active role by learning and teaching their peers by working together.

3. INTERVENTION PROPOSAL

In this section we will describe in detail the intervention proposal that we have designed: its objectives, methodology sessions and activities, materials and resources, evaluation, and so on. It is a proposal based on CLIL approach that aims to provide more opportunities for students' oral communication. The students will be encouraged to work in groups and they will have an active role that allows the teacher to become a facilitator and supporter of learning while students take on more responsibility for their own learning.

3.1. TARGET GROUP

The following intervention proposal is directed to a fifth course of Primary Education (year 5) whose school implements CLIL methodology in the Natural Science and Art Crafts subjects.

The characteristics of our intervention proposal are designed for a group of 20 students from different countries and cultures. These students are studying under the CLIL methodology from the first year of Primary Education and they are exposed to the FL 10 hours per week. Most of the students are Spanish (14 students), but there are also some Moroccan (3 students) and British (3 students). Therefore, the mother tongue is different from some students to others. However, these students were born in Spain thus they do not have any problem with the Spanish language. These students have different levels of proficiency in English. However, they are considered able to work in an independent way with the FL. None of them have physical disabilities or special education needs.

Some students have parents with demanding professions in languages, so they promote the integration of the FL at home; for example, computer use for games and activities in English or watching the TV in the FL, among others. Another thing to note about the students is their study of English outside the classroom, is that 10 of them attend language schools.

3.2. OBJECTIVES AND BASIC COMPETENCES

The main objective of this intervention proposal is to provide 5th year primary students in a CLIL context with sufficient opportunities to develop their oral communication in the FL through the use of CL and fostering teacher and peer-scaffolding. To do this, we will work on the theme of energy, where students will learn the different forms of energy and the importance of energy, among others.

On the other hand, we also propose a series of specific learning objectives we want students to achieve, which are described in the Table 3, along with the basic competences that work in each of them according to the LOMCE.

Table 3.Objectives and basic competences

Objectives	Basic competences
- Use the FL to communicate opinions and ideas, to express agreement, disagreement and give reasoning. - Use the FL as the language of communication with their peers in interactions and expositions. - Use the FL for the activities' performance. - Acquire new vocabulary in the FL.	Competence in linguistic communication
- Make use of critical thinking and reasoning processes to solve problems, get information and assess the validity of an argument. - Develop responsible attitudes in relation to resources and the environment.	Mathematical competence and basic competences in science and technology
- Create a mind-map using the software called Goconqr.	Digital Competence
- Be able to self-evaluate, recognize their own abilities and limitations, and accept their own mistakes and learn from others. - Use the FL to explain what they have learned during the sessions.	Learning to learn
- Actively participate in the activities, expressing their own ideas and respecting to others, adopting a responsible and supportive attitude.	Social and civic competences

- Develop the skills to work in groups, including empathy, valuing the ideas of others, negotiation, assertiveness and cooperation.	Initiative and entrepreneurship
- Value the importance of energy and recycling in our daily lives.	Cultural awareness and expression

3.3. METHODOLOGY

This intervention proposal is based on an active and participative methodology that leads students to take a more active role in their learning. Teacher incorporates scaffolding and becomes a facilitator of knowledge guiding their students' learning process.

We work from the pupils' own experiences and previous knowledge, bringing activities for them which are motivating, as well as adaptable to their reality and interests. Different factors, such as thinking, observation, experimenting, dialogue and interaction, will play a relevant role in the class; teamwork and "can do" attitude will be stressed. We will encourage an environment full of respect, help and assistance from the teacher and the rest of colleagues.

The use of spoken English as the communication language will be encouraged, as well as interaction amongst pupils and between pupils and the teacher (through positive feedbacks, which help them to feel more confident when expressing themselves in a FL, and doing this more often). It will be key to reinforce the positive factors in them, as correcting them too much in each involvement might derive in lack of motivation and them deciding to stay quiet and not participating.

All along explaining our proposal, we will offer pupils different types of scaffolding. While they carry out the proposed activities, we will offer them the needed assistance for them to develop their communicative competence in English; this way, we make sure pupils are both learning the English language and the contents at the same time. Different strategies will be used, such as hanging posters and banners in the classroom walls, with the most used expressions in English, use of body language, including images with the texts to make its comprehension easier, etc.

Different varied resources will be used to achieve basic competences, educational targets and the enhancement of spoken performances of pupils. Practical and manipulative exercises will be prioritized. These types of activities encourage and improve the pupil's motivation.

All along this proposal, pupils will work in groups. Depending on the activity, the groups will be made either in pairs on in small groups. We consider CL to be key on our proposal, since it implies a healthy and encouraging environment in the classroom, in which threats to self-esteem are minimized. Working in small groups offers pupils the opportunity to work in a calm environment and, consequently, they are more likely to interact and engage with others.

To design this intervention proposal we have followed the 4Cs framework, as described in the literature review. Figure 1 shows how this intervention proposal is organized around the 4Cs.

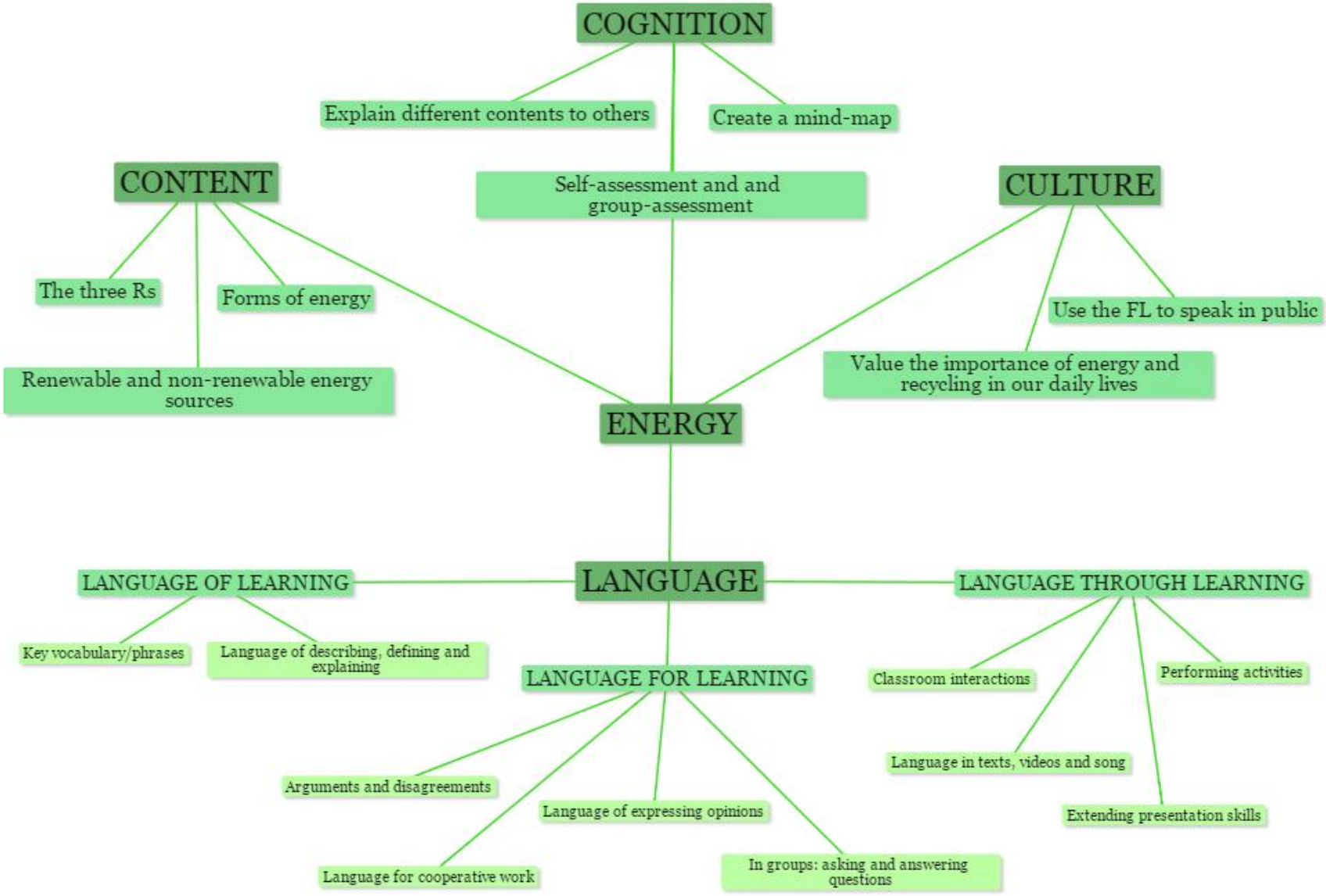

Figure 1.Aspects of the 4Cs of the intervention proposal

3.4. TIMING

This intervention proposal lasts 1 month (as we only work during the Natural Science subject) and it involves 9 sessions with duration of 60 minutes each one. We work different topics during this intervention proposal and in some of the topics we use more than one session. In the Table 4 we can see a summary of the topics we work, the sessions dedicated for each topic, the activities we have designed for each session and the duration of them. In the next section, we describe the activities in further detail.

Table 4.Timing of the topics

TOPICS	SESSIONS	ACTIVITIES	DURATION (minutes)
What do we know about energy?	1	Activation students' prior knowledge	20
		Students, in pairs, share with the rest of the class one of their mayor ideas	40
Energy	2	Students, in small groups, read a text and they talk about the text with their group-mates.	20
		Tea party game	40
	3	Students create a poster and present it orally to the rest of the class	60
The main forms of energy	4	Activation students' prior knowledge	15
		Video and questions	15
		Numbered Heads Together	30
	5	Students, in small groups, create a mind-map	60
Renewable and Non-Renewable energy sources	6	Activate students' prior knowledge	15
		Song	20
		True/False activity	25
The three Rs	7	Video	10
		Students create posters with the contents and objectives assigned by the teacher	40
		Teacher explains the outdoor experience	10
	8	Outdoor experience	45
		Follow up work (questions about the excursion)	15
	9	Use the Three Rs in different items that they have taken from the bin.	60

3.5. SESSIONS AND ACTIVITIES

In this section, we discuss in depth the various sections that form part of the proposal: its objectives, activities, organization, materials, aspects of which concern 4Cs, etc. At the end of the explanation of each session a summary table for each of the activities proposed in the session is included.

3.6.1. Topic 1: What do we know about energy?

In this **first session** of the intervention proposal, we will try to activate the students' prior knowledge. The way in which the session starts is critical to the results we get from it, and we consider that the activation of prior knowledge should be the first step.

We will begin the session by asking students in grand group:

- Do you know what the energy is?
- Do you know how many types of energy are there? Can you name some of them?
- Do you know why energy is very important?

After that, we tell students that they have to group into pairs to do an activity about the topic. We have decided that children will work in pairs because we believe it is easier for them to talk in the FL with a colleague than talk to 3 or 4 classmates. In pairs children have less shame and less fear of making mistakes that when they have to work with more classmates. We let them pick their own partner because we consider that some students feel more relaxed and motivated to work with some students than with others. In this way, we provide them with a safe environment in which they can experiment with the language and the content.

Once they are in pairs, we explain to the students that they have individual time to think about the topic. After a few minutes, students will use the FL to share their own experiences, hunches, and ideas about the topic to the other member of the pair. Once they have finished, each partner will choose one major idea to share to the rest of the class. Students will use the FL throughout the activity and we will help them to talk about the topic by offering some questions, such as, do we use energy every day?, what forms of energy do we use?, what does energy help people to do?.

Besides, we will provide some scaffolding with a poster (Annex I) with a list of expressions they could use. The poster will be placed in a visible place for all students. This will help students to speak in English with their partner about the new topic. If we want students to talk in English about a topic and they don't know

the language it is impossible. In this way, they could read and use the expressions of the poster to express their ideas, thoughts, among others.

Along this session we promote an active learning as the students are active participants and the teacher is a facilitator of the learning. Table 5 presents a summary of the first topic (what do we know about energy?) that we have worked throughout this first session.

Table 5.Topic 1: What do we know about energy?

TOPIC 1			
Duration:	60 minutes.	**Organization:**	Grand group and pairs.
Objectives		**Description**	**Materials and resources**
Use the FL to communicate with peers. Use the FL to communicate ideas and thoughts.		In this activity, we will try to activate students' prior knowledge. After that, students have to talk with their partner about the new topic and come to an agreement on a main idea of the issue which they will share to the rest of the class.	Poster with language expressions (Annex I).
Aspects of the 4Cs			
Content		**Cognition**	**Culture**
Energy.		Explain their prior knowledge to others.	Use the FL to speak in public.
Communication			
Language of learning		**Language for learning**	**Language through learning**
Key vocabulary: Energy		Language of explaining ideas. Language for group work. Language to build arguments and disagreements. Asking and answering	Realization of the activity. New language appears in the activity.

	questions in groups. Language of giving opinions.	
Scaffolding strategies		
- Teachers allow enough wait time for students' responses. - Teachers offer assistance to students through questions to make them easier to talk about the topic. - Teachers provide a poster with language expressions (visual scaffolding).		

3.6.2. Topic 2: Energy

To work this topic we will use two sessions because we do not have enough time to do everything in just one session.

In **session 2** we will use a CL strategy called tea party which it is a game for children, as explained in the literature review. We have chosen this strategy because it is a game and, therefore, it is highly motivating for children. Play is the favorite activity of children. The games help children to socialize and to acquire many basic skills for adult life.

We will get the students into four heterogeneous groups of five. These groups will be made by the teacher at the beginning of the school year. This grouping is the most common and which we will use in most of the sessions. Each group will be formed by students of various grade levels. So the level of average performance of all the groups is more or less the same. On the other hand, we have chosen this grouping because we think peer scaffolding can emerge. In this way, more capable students can assist other lower-lever students by offering advice, guidance and modeling and both have opportunities to learn. By working with a FL, being only 5 students in each group will be faster to reach agreements and coordinated. Besides, in the small groups all the students have individual responsibility and for the teacher will be easier to detect and resolve problems.

In this session, we will give each group a short text (Annex II) about the energy. Students will have to read it quietly. Once all the group-mates have finished reading, they will have to talk about the text with their peers and they will construct the learning together. On the other hand, if a student does not understand something a more capable peer or the teacher can explain it using gestures, making drawings or explaining the meaning of something with other words.

Afterwards, students will play a game in which they could check their learning. For this game, we will place all students forming two lines facing each other. We will ask a question and students have to discuss the answer with the student they are facing. After a few minutes, one line will move to the left or the right so students will

have new partners. Then we will ask a second question for them to discuss. We will continue with two more questions. The questions will be the following:

1). What is energy?

2). What does energy make objects do?

3). What does energy help people to do?

4). Where does energy come from?

We have chosen this game because we think that is motivating for children. Also, through the answers students give to the questions we can check if they have learned the content and if they are able to express it in the FL.

We will use **session 3** to ensure that students have understood the content of the text and they are able to explain it using the FL. In this way, students will do a final task. We will assign a question to each team and we will give them cardboard cards, pencils, crayons and colored markers. Each group will create a poster with the information needed to answer the question. They will also include drawings or decoration they deem necessary. Students will be responsible for organizing the work for the realization of the poster. We believe that, as they are students from the year 5, they are able to organize themselves. They will have to make decisions about the design of the poster, the information they will include and the things each one have to do.

Finally, each group will present orally their posters to the rest of the class. Each student will have the obligation to explain something of the poster so that no student group can stay without explaining anything. They will explain why they have chosen that design and the information they have included in the posters. The rest of the class can ask questions about his poster about the content, the design or what they deem necessary. Then the posters will be placed on a wall of the classroom, so students will always have in sight. Students could use the posters created in case they have any doubt. Also keep them in sight make students feel proud of their work.

The sessions we have chosen to work this topic are focused on learning the language through content and learning the content through language in a safe and enriching learning environment. We provide students with a learning environment in which they can experiment with the language and the content. Students are active participants and they cooperate to build for their own learning. Besides, in these sessions we foster the autonomous learning. In Table 6 we present a summary of the second topic (energy) that we have worked throughout the sessions 2 and 3.

Table 6.Topic 2: Energy

TOPIC 2			
Duration:	120 minutes.	**Organization:**	Heterogeneous groups of 4 and grand group.
Objectives	**Description**	**Materials and resources**	
Learn energy content. Use the FL to communicate with their team-mates and make decisions about the content or design of the poster. Present their posters orally to the rest of the class.	In this activity, students will read a text about energy. After that, they will talk about the text for a few minutes. Later, students will play a game. They will form two lines facing each other. We will ask a question and they have to discuss the answer with the students they are facing. We will do the same with the rest of questions. Finally, we will assign a question to each group of 4 students and they will have to create a poster with the information needed to answer the question.	Text of the energy (Annex II). Cardboard cards. Crayons. Colored markers. Pencils.	
Aspects of the 4Cs			
Content	**Cognition**	**Culture**	
Energy.	The contribution of new ideas to the poster's design.	Use the FL to speak in public.	
Communication			
Language of learning	**Language for learning**	**Language through learning**	
Key vocabulary: Names: energy, light bulbs, object, movement, electrical energy, light, nature, Sun and heat.	Language for group work. Language to build arguments and disagreements. Language of giving opinions. Language of explaining ideas.	Realization of the activity. New language appears in the activity.	

Verbs: make, help, to move, heat up, produce, change, use, keep warm, transformed and come. Key phrases: Energy makes objects…; Energy helps people to…; Energy comes from…; Energy is…		
Scaffolding strategies		
- Teachers allow enough wait time for students' responses. - Teachers use the game to motivate students to talk about the text. - More capable students assist lower-lever students.		

3.6.3. Topic 3: The main forms of energy

To work this topic we will use two sessions as we have done with the previous topic. We will explain everything in detail below.

In session 4 we will start with the students grouped in large group because we will ask them some questions to find out their previous knowledge. The questions will be like the following:

- Do you know if energy appears always in the same way?
- Can you name some forms of energy?
- Can you give an example of an object that needs energy to function? What type of energy is used?

We will ask students this kind of questions and they will have to raise their hands if they want to answer a question or if they want to ask something. We will encourage students to ask about their questions or concerns, which can be very motivating for the rest of the students. Also we will let them explain anything about the topic they want to tell, helping them with the vocabulary they do not know.

After these questions, we will ask students if they want to watch a short video where they could learn the main forms of energy and its main characteristics. The video will help us as visual scaffolding because it is a support that includes images and words that can be seen as well as heard. Visual scaffolding is one of the best ways to provide comprehensible input for the students who are studying in a FL

Students will watch the video 2 times, but we will ask them if they want or if they need to watch the video another time and depends on their answers they will watch the video another time or not. Students could take notes about the video if they deem necessary.

When students have seen the video we will ask them:

- Do you like the video or not? Why? Why not?
- What struck you most about the video?
- Do you have any doubt?

After that, students will be placed in their group-work. As they are working in groups of 5, two students will have two numbers and the other three will have only a number from one to seven. The teacher poses a question and students' put their heads together' to figure out the answer. We will leave them enough time to answer and we will wait until all groups have finished. We will go through the groups to see if they have any doubts, to check if they are speaking in the FL or to help them with any problems of vocabulary or content.

A number will be randomly selected to represent the group and present orally the answer to the class. Students will have to stand up and answer questions aloud.

This activity gives students the opportunity to work with their classmates and to discuss the presented question. As no one knows what number the teacher will call, everyone must be prepared to answer as their group representative. On the other hand, the students co-operate with each other to construct the answers. Some students could help some learners to reach the level of competence required to answer the question. For example, they could use gestures, examples, circumlocution to define some concepts in an easy way or draws. If more knowledgeable peers are not able to explain it the teacher will assist these students making the FL easier in order to make the contents more accessible. As teachers make use of scaffolding in the classroom, they become a mentor and facilitator of knowledge. This teaching style leads students to take a more active role in their learning as this session is student-centered in which they are responsible for their learning.

To answer the questions we will ask them, students will have to understand the content of the video. The questions will be the following:

1. How many types of energy are there? Can you name them?
2. Can you explain mechanical energy?
3. Can you explain chemical energy?
4. Can you explain electrical energy?
5. Can you explain thermal energy?

6. Can you explain light energy?
7. Can you explain nuclear energy?

As I have explained before, when the teacher says a number, for example number one, students in each group with that number have to orally answer the question to the rest of the class. The students' answers do not have to last more than 1 minute because they are closed questions and not allow children to explain many things. However, if a student does not know what to say, we will leave him a maximum of three minutes to answer. When each student answers the questions the other groups have to say if the answer is right or wrong. If the answer is wrong, any of the other groups will tell them the correct answer and why they were wrong. Students are active participants throughout the session and the teacher is only a facilitator of learning.

We will use another session **(session 5)** for this topic in which the teacher will assign to each group-work two questions and they will use the software "goConqr" to create a mind-map. GoConqr is a software that allows them to create, to share and to discover mind maps online. Mind-maps are a useful tool which facilitate the assimilation of concepts and improve learning. Once, they have finished we could upload the mind-maps to the blog of the subject. This is a kind of diary where users can exchange information on the topic and it allows them to communicate and to share information. In Table 7 we present a summary of this topic (the main forms of energy), that we have worked throughout the sessions 4 and 5.

Table 7.Topic 3: The main forms of energy

TOPIC 3			
Duration:	120 minutes.	**Organization:**	Grand group and heterogeneous groups of 5.
Objectives		**Description**	**Materials and resources**
Identify and explain the main forms of energy Use the FL to answer orally to different questions.		In this activity students will watch a video. After that, we will assign a number to each student. We will pose a question and students in	Video of the six types of energy[1]. Notebooks. Pencils. Computer room.

[1] https://www.youtube.com/watch?v=Xnn9NMNEMZA

Use the FL to communicate with their peers. Use the FL to decide how to create the mind-map and to design it.	groups have to come up with an answer. We will call a number and ask all students with that number to stand up and answer the question. Finally, these students have to create a mind-map in relation to the questions they have answered.	GoConqr[2]. Blog of the subject.
Aspects of the 4Cs		
Content	**Cognition**	**Culture**
Different types of energies and their characteristics.	Extract the most relevant information from the video. Contribution of new ideas to the mind-map's design.	Reflection on the importance of the energy. Use the FL to speak in public.
Communication		
Language of learning	**Language for learning**	**Language through learning**
Key vocabulary: Chemical energy, thermal energy, light energy, electrical energy, nuclear energy and mechanical energy.	Language for group work. Language to build arguments and disagreements. Language of giving opinions. Language of explaining ideas.	Realization of the activity. New language appears in the video.
Scaffolding strategies		
- Peer support. Students provide support to each other to construct the knowledge. - Teacher scaffolding. Make the FL easier in order to make the contents more accessible. - Video (visual scaffolding). Students learn the contents while they are listening and watching to the video. The teacher could stop the video whenever necessary and play the video as many times as students need.		

[2] https://www.goconqr.com/es

3.6.4. Topic 4: Renewable and non-renewable energy sources

In **session 6** we will work a song that will serve students to learn about the renewable and non-renewable energy sources. Furthermore, in this song the children will realize the importance of energy in our daily lives. On the other hand, the songs are very motivating for students and allow them to learn in a more relaxed atmosphere.

Before starting the song, we want to know the students' prior knowledge so that we will make them following questions:

- How many types of energy resources are there? Can you name them?
- What happened with the renewable resources?
- Can you provide an example of a renewable resource?
- What happened with the non-renewable resources?
- Can you provide an example of a renewable resource?

After these questions students will be grouped in grand group to reproduce the video with the song. The first time, they only have to watch the video while listening to the song. After that, we will ask some questions to students, such as, do you like the song? Do you want to hear the song again? Would you like to learn the song? We will do this kind of questions to find out the students' interests. Besides, we will show them that their decisions about what they want to learn or study are important.

The students will watch the video a second time and we will be stopping for repeating what it says, to see if the students understand the song or have any questions about it. We will ask them:

- Do you have any doubt or question?
- What is the meaning of renewable energy sources?
- What is the meaning of non-renewable energy sources?
- Can you explain the meaning of the song?

We will enable students to understand the song. If the song is very fast for the students, we will stop the song in every sentence. Also, if they do not understand the song because they do not understand the accent we will sing the song with our accent which is where students are used to. We also accompany the song with all possible gestures.

The students will watch the video a third time and they will try to sing the song at the same time. This video is especially good because it has real images and the lyrics of the song. If some students have not memorized the song they can read the lyrics and sing at the same time to the rest of the class. Besides, the images have a key role because children know the reality through the visual representation media

(mainly TV) offered to him. With real images, we can ensure that children have a less theoretical and a more attached to a daily reality vision. In this way, this video is characterized by the authenticity which is one of the CLIL principles.

At the end, we will get the students into their group-work. Each group will work collaboratively to think and write 5 sentences about the song. Once all groups have finished, each member group will read loudly one sentence and the other groups will have to say if the sentence is true or false. In the case of false they should explain why it is false. If students from other groups cannot say true or false they will have to be the ones to explain to their peers why that sentence is true or false. Students have a key role during all the session as they are responsible for their learning and they act as teachers also because they help their peers to build knowledge. In Table 8 we present a summary of the topic (renewable and non-renewable energy sources) that we have worked during this sixth session.

Table 8.Topic 4: Renewable and non-renewable energy sources

<table>
<tr><th colspan="4">TOPIC 4</th></tr>
<tr><td>Duration:</td><td>60 minutes.</td><td>Organization:</td><td>Grand group and heterogeneous groups of 5.</td></tr>
<tr><th>Objectives</th><th colspan="2">Description</th><th>Materials and resources</th></tr>
<tr><td>Use the FL to understand and sing a song.
Use the FL to write sentences about the song.
Use the FL to explain why a statement is true or false.
Learn content through a song.</td><td colspan="2">The activity consists of listening to a song, sing it and understand it. Later, each group will have to write statements about the song. The rest of the students will have to say true or false and explain why.</td><td>Video of the Renewable and Non Renewable energy sources[3]
Cardboard cards
Pencils</td></tr>
<tr><th colspan="4">Aspects of the 4Cs</th></tr>
<tr><th>Content</th><th colspan="2">Cognition</th><th>Culture</th></tr>
<tr><td>Renewable energy sources and non-</td><td colspan="2">Explain why a statement is true or false based on</td><td>Value the importance of energy in our daily lives.</td></tr>
</table>

[3] https://www.youtube.com/watch?v=dbrv9LGBcDo

renewable energy sources.	evidence.	
Communication		
Language of learning	**Language for learning**	**Language through learning**
Key vocabulary: Names: Future, humans, resources, life, nature, renewable energy sources, non-renewable energy sources, hydroelectric energy, wind, solar energy, light, heat, Sun, geothermal energy, team, community, fossil fuel, oil, gas and coal. Verbs: Survive, use, keep alive, replace, power, form, maintain, reduce, reuse, recycle and clean up.	Language for group work. Language of explaining why a statement is true or false.	Realization of the activity. New language appears in the activity. Watch and listen to a Youtube song.
Scaffolding strategies		
- Peer support. Students provide support to each other to construct the knowledge. - Teacher support. Make the FL easier in order to make the contents more accessible. - Video (visual scaffolding). Students learn the contents while they are listening and watching to the video. The video contains real images so it helps students to know the reality. The teacher could stop the video whenever necessary and play the video as many times as students need.		

3.6.5. Topic 5: The three Rs

To work this topic we will use three different sessions (7, 8 and 9) as we have designed 6 activities and it is impossible to do all of them in one session because we lack time.

In this topic we will do an outdoor learning activity because it provides students enjoy the following:

- Safe and enriching learning environment. They use the language with their experiences (content in context).
- Authenticity. Outdoor learning offers many opportunities for learners to deepen and contextualize their understanding within curriculum areas. Students learn by doing and what better way for them that to learn in reality.
- Active learning. Outdoor learning enriches the curriculum and makes learning fun, meaningful and relevant for children and young people. “They learn by doing”.
- Scaffolding. The outdoor environment offers motivating, exciting, different, relevant and easily accessible activities. Learning outdoors can be enjoyable, creative, challenging and adventurous and helps children and young people learn by experience.
- Co-operation. The outdoor environment encourages students to see each other in a different light, building positive relationships and improving self-awareness and understanding of others.

In **session 7** we will start with the first stage of the outdoor experience that is to prepare the students for the outdoor experience. We will use a video called 3 R’s – Reduce, Reuse and Recycle as supplementary material to gar the students’ attention and to introduce the topic in a clear and meaningful way. The students will watch the video two times. With this video we will introduce students in the topic "the three Rs" and we will make content concepts visible and understandable. They will be able to learn with the video some concepts such as pollution, reduce, reuse and recycle.

In addition, we will clearly define to the children the content and the language objectives. These will be explained in the summary table. We will write both contents on the board and state orally. The students, in their work-groups, will make a poster with the content or language objective assigned by the teacher. Each group will read their poster and, after that, it will be placed on the classroom walls. It is very important to clearly define the content objectives and the language objectives because students are more likely to fail if they do not know what to learn, and they are likely to fail if they do not know what to do. Therefore, having both content and language objectives clearly posted and clearly stated, we will help to set students up for success.

In **session 8** we will work in the second stage which refers to "during the outdoor experience". We will leave the school and we will go to an area close to the school in which there are different recycling containers. When we are in front of the recycling containers we will tell our students to notice what color they are, what they have inside if they can see it and what things could be reused. Students could have a notebook, and they could write down or draw their observation. When students have finished with their observation, we will return to the school.

The last step refers to "after the outdoor experience to effective follow-up work in class". In the classroom we will tell them that they have to group into their work-groups and talk about what they have seen. After that, we will call some groups to explain to the rest of the class what they have seen in the little excursion or what they have learned. Once this has been carried out we will ask students some questions to guide them to the content. The questions will be, for example:

- Why are different color containers?
- What kind of things has to be put inside the blue container? In the yellow container? And, in the green container?
- Why is it important to put different materials or things into different containers?

We will ask the students for next day school, in which they have Natural Science class, that they have to take an item out of the garbage and bring it to the class.

In **session 9** we will group students into their work-groups. We will tell each group that they have to choose two things from all they have brought to the class. Then, they have to think about how they could use the 3Rs in the things they have chosen. After that, they will have to choose, among the ideas, the most important. Students could write all the information in a sheet if they deem necessary. Once they have finished, each group will have to show the selected item, and explain to the rest of the class how they could use the 3Rs in that item or which R could they use with the item. In Table 9 we present a summary of this topic (the three Rs) that we have worked throughout the sessions 7, 8 and 9.

Table 9.Topic 5: The three Rs

TOPIC 5			
Duration:	180 minutes.	**Organization:**	Grand group and heterogeneous groups of 5.

Objectives	Description	Materials and resources
Identify and describe the different recycling containers. Find out the importance of reduce, reuse and recycle. Use the FL to explain what they have learned in the outdoor learning. Use the FL to answer orally to different questions. Use FL to communicate with their peers and to make decisions.	The students will watch a video about the Three Rs. After that, they will leave the school and they will go to a close are to see the different recycling containers. Finally, they will talk about their experience outside the school and they will work in groups to think how they can use the Three Rs in different items that they have taken from the bin.	Video of the 3 R's – Reduce, Reuse and Recycle[4]. Notebooks. Pencils. Cardboards. Garbage.
Aspects of the 4Cs		
Content	**Cognition**	**Culture**
The Three Rs.	Extract the most relevant information from the video. Explain what they have learned. Express their opinions.	Reflection on the importance of reuse, reduce and recycle. Use the FL to speak in public.
Communication		
Language of learning	**Language for learning**	**Language through learning**
Key vocabulary: Reduce, reuse, recycle, pollution, containers.	Language for group work. Language to build arguments and disagreements. Language of giving opinions. Language of explaining ideas.	Realization of the activity. New language appears in the video and during the outdoor learning.

[4] https://www.youtube.com/watch?v=SKvGgb3YcDQ

Scaffolding strategies
- The outdoor environment motivates, excite students and help them learn by experience. - Peer support. Students provide support to each other to construct the knowledge. - Teacher scaffolding. Make the FL easier in order to make the contents more accessible. - Video (visual scaffolding). Students learn the contents while they are listening and watching to the video. The teacher could stop the video whenever necessary and play the video as many times as students need.

3.7. ASSESSMENT

The assessment is essential in the development of any intervention proposal. The assessment will be divided in two sections: The learning assessment and the evaluation of the intervention proposal itself.

3.7.1. Learning assessment

We will carry out a formative assessment during the whole intervention proposal. This is mainly based on the observation of students during the performance of the activities and it serves to check how the teaching-learning process develops. Table 10 summarizes the different tools we plan to use, when and who.

Table 10. Assessment tools

Types of assessment tools	When do we assess?	Who assess?
Initial assessment through oral questions	At the beginning of the sessions 1, 4 and 6	Teachers
Direct observation through the students' productions (Table 11)	At the end of the sessions 3, 5, 6 and 9	Teachers
Self-assessment through the self-assessment table (Figure 2)	At the end of the intervention proposal	Students and teachers
Group-assessment through the table to	At the end of the sessions 2, 6 and 9	Students

evaluate collaborative work (Figure 3)		

At the beginning of most sessions (1, 4 and 6), a small initial assessment arises through a dialogue from various oral questions asked by the teacher to the whole class. In this way, it is possible to find out the prior knowledge of the students in relation to the contents and language we will work.

The evaluation of the students' learning will enable us to know, for example, if the students have understood the contents and procedures to implement, if it is necessary to explain more carefully, or if the degree of difficulty of an activity is not adequate. This will allow us to follow up student progress and act in good time to possible learning difficulties. We will use different assessment tools such as direct observation by the teacher, their oral presentations, the final outcome of their activities, their self-assessment and group-assessment. The evaluation will take into account both the content and the acquisition of the FL, especially the oral communication.

In the Table 11 we present through a rubric, the evaluation criteria that we consider to find out the degree of achievement of the objectives by students.

Table 11.Rubric to check the degree of achievement of objectives by students

	4	3	2	1	Point
Participation	He/she always actively participates in the activities.	He/she almost always actively participates in the activities.	He/she sometimes actively participates in the activities.	He/she never actively participate in the activities.	
Behaviour	He/she maintains an excellent attitude in the lessons and he/she always accepts criticism and suggestions.	He/she maintains a proper attitude in the lessons and he/she almost always accepts criticism and suggestions.	He/she maintains a regular attitude in the lessons and he/she sometimes accepts criticism and suggestions.	He/she maintains a bad attitude in the lessons and he/she never accepts criticism and suggestions.	
Use of the FL	He/ she always use FL to express contents and ideas, to communicate with their peers and to express agreement and disagreement.	He/ she almost always use the FL to express content or communicate with their peers.	He/ she sometimes use the FL to express content or communicate with their peers.	He/ she never use the FL to express content or communicate with their peers.	
Contents	He/she learns all the contents.	He/she learns almost all the contents.	He/she learns some contents.	He/she does not learner any new content.	
Collaboration with their peers	He/she always collaborates with their peers helping them whenever they have needed.	He/she almost always collaborates with their peers helping them whenever they have needed.	He/she sometimes collaborates with their peers helping them whenever they have needed.	He/she never collaborates with their peers helping them whenever they have needed.	
ICT	He/she uses the ICT tools perfectly.	He/she uses the ICT tools almost perfectly.	He/she uses the ICT tools correctly.	He/she does not use the ICT tools.	
Language vocabulary	He/she learns all the new vocabulary related to the topics.	He/she learns almost all the new vocabulary related to the topics.	He/she learns some vocabulary related to the topics.	He/she does not learn any new vocabulary.	
Oral interaction	He/she can express his ideas and thoughts in a fluently way.	He/she can express his ideas and thoughts almost fluently.	He/she has some problems to express his ideas and thoughts.	He/she cannot express his ideas and thoughts.	
Culture	He/she always shows interest in the topics valuing their importance.	He/she almost always shows interest in the topics valuing their importance.	He/she sometimes shows interest in the topics valuing their importance.	He/she never shows interest in the topics valuing their importance.	

Moreover, we involve students in the evaluation process through self-assessment. To do this, students will complete Figure 2 at the end of the intervention proposal.

We consider self-assessment a very useful tool to know how students perceive their learning. It also generates a number of benefits as it allows students to become aware of their own work, to take responsibility of their learning and have a clear idea of their mistakes and successes. In addition to students, the teacher also completes Figure 2, where some smileys are used to represent the score. Students and teachers evaluate aspects such as students' attitudes and behavior, students' use of the FL and students' contents learning. We could see this in more detailed in the following figure. In this way, we could contrast what the students think with what we think. This means students could also check if they are objective when they evaluate themselves. Furthermore, as an example, if a student thinks that he/she has always listened to the teacher when he/she was talking and the teacher evaluates them with another smiley, the student could ask the teacher why he/she has that score and why he/she hasn't reached the highest score. Figure 2 shows the table students complete to carry out their self-assessment.

	Always 	**Sometimes** 	**Rarely** 	**Never** 
I have listened the teacher when he/she was talking.				
I ask for help when I don't understand.				
I raise my hand to answer questions in class.				
I can work in pairs.				
I can work in groups.				
I can distinguish the different recycling containers and the different types of waste.				
I can distinguish between renewable and non-renewable energy sources.				

I can explain the main forms of energy.				
I can define what energy is.				
I can express the importance of energy in our daily live.				
I can explain to others my ideas and thoughts in a coherent way.				
I have been using English when we have been working in groups and in pairs.				
I have helped my peers whenever they have needed.				
I have been using the specific vocabulary of the unit in my oral presentations.				

Figure 2.Self-assessment table

On the other hand, as we have seen over the intervention proposal, students work cooperatively in all the topics and sessions. In this way, we involve them in the assessment process at the end of the sessions 2, 6 and 9. To do this, students must complete the collaboration table of the Figure 3. The aim is for students to make a reflection and evaluation of their teamwork at the beginning (session 2), in the middle (session 6) and at the end (session 9). Besides, as they complete the figure at different times, we can see if students think they have improved when they work in groups or what kind of problems they have when they work cooperatively.

Behind the table students should write the group name, the group members and the activity name.

	Always 	**Sometimes** 	**Rarely** 	**Never** 
We have collaborated with each other.				
We have shared responsibilities.				
We have respected our group-				

mates opinions.				
We have been using English…				
We have been engage in practical conversations related to the task.				
We have asked for help when we needed.				
We have taken turns speaking.				
We have made decisions collaboratively.				
We have taught each other difficult words, difficult concepts…				
We have finished our tasks on time.				
We have helped each other.				

Figure 3.Table to evaluate collaborative work.

3.7.2. Evaluation of the proposal

Along with the learning assessment, we also evaluate the intervention proposal. Thus, once we implement it, we will assess the design of the proposal, the performance and the evaluation of the results. This will serve to detect and correct possible problems and difficulties, as well as to introduce some changes and improvements.

We will also have the collaboration of students who communicate us opinions and impressions. To do this, we will ask students some questions like the following:

- What activity did you like the most?
- What activity did you like less?
- What has been the hardest for you?
- What has been the easiest for you?
- Would you change anything?

The information students give us with their answers will be very useful to introduce any changes and improvements, taking into account not only our point of view, but also the students.

Table 12 presents the evaluation criteria with which the teacher could assess the intervention proposal.

Table 12.Intervention proposal evaluation criteria.

Indicators	**Yes**	**No**	**Comments and observations**
1. The objectives proposed are realistic and appropriate.			
2. Sufficient opportunities for students to express themselves through the FL are being offered.			
3. The students' communicative competence in English has improved with the implementation of the intervention proposal.			
4. The aspects proposed in the 4Cs (content, cognition, communication and culture) are adequate.			
5. The scaffolding offered meet students' needs. 5.1. Peer-scaffolding has been effective. 5.2. Teacher-scaffolding has offered students to take a more active role during the sessions.			
6. The activities are motivating and satisfy students' abilities.			
7. The resources and materials used are appropriate.			
8. Students working in groups have had more opportunities to develop their oral communication in a relaxed atmosphere.			

4. DISCUSSION

In this didactic intervention we have followed a methodology based on scaffolding and CL in a CLIL context. We had decided to use this methodology because we wanted to create a cooperative atmosphere in which the teacher incorporates scaffolding and becomes a facilitator of knowledge allowing students to take a more active role in their learning.

For the design of the intervention proposal we have used the 4Cs conceptual framework developed by Coyle et al. (2010) and its four contextualised blocks (content, communication, cognition and culture). In this way, in the sessions proposed through the intervention proposal the content and language have been integrated within a context.

Communication has played an important role throughout the intervention proposal and we have used the language from three perspectives (language of, language for and language through). The three intertwine and rely on each other to produce meaningful communication. For example, if you want children to work in groups on the topic energy, they have to know the key vocabulary (language of) but also the language to work as a group (language for).

Although we have specially focus on CL and scaffolding the rest of CLIL core features, developed by Mehisto, et al. (2008), were taken into account as well. We have developed a multiple focus methodology as we have focused on learning the language through content and learning the content through language. We also have offered students a learning environment in which they have been able to experiment with the language and the content.

In general, this intervention proposal can be used by teachers to provide students with opportunities to develop their oral skills. In addition, it could be very motivating for students as they always work in pairs or groups taking an active role in their learning and helping their peers to construct their knowledge instead of being mere receptors of information.

5. CONCLUSIONS

In this section we present the conclusions we have reached upon completion of the present study. First, as we have explained during this project one of the main

objectives of the Primary Education is that students have to acquire communicative competence in at least one FL enabling them to understand and express simple messages in everyday situations. Following the analysis carried out on CLIL, it has been found that it is a methodology that seeks the maximum exposure of students to a FL in a real and close context, where the active participation of the students is essential and the teacher becomes the pillar that provides strategies and structures for learning both content and language.

For the above reasons, we have designed an intervention proposal in a CLIL context to provide students with opportunities to practice and improve their oral communication through the use of CL and scaffolding. These two aspects have helped us to provide students with more opportunities to interact with their peers, to take a more active role by learning and teaching their peers and to establish an atmosphere of cooperation in which students collaborate with each other and they feel less nervous when they participate.

On the other hand, in the intervention proposal we have provide students with different and dynamic sessions in which they have an active role and are responsible for their own learning, while the teacher is a facilitator of knowledge. This methodology, opposite to the traditional methodology in which students are receptors of information, is very motivating for children so I think they would be motivated to learn and excited to see that more and more they are able to use the FL.

Although this intervention proposal has not been carried out, we expect students to use the FL in all the situations we provide them in a CLIL context for this purpose and, at the end, the possibility to improve their oral communication as it is one of the skills that is least work and show more weaknesses in the classrooms at the moment.

6. LIMITATIONS AND FURTHER RESEARCH

Upon completion of this work, it is time to present the limitations that we have had and provide possible future lines of action and future research. There are several limitations of this Master's Dissertation in its different phases. First, according to the research we have made, we could not find studies related to scaffolding and CL in a CLIL context. We have only found scaffolding and CL studies which we have adapted to the CLIL context. On the other hand, a remarkable aspect during the

research is was that most articles and published studies are focused on scaffolding strategies for the development of writing skills, and few of those relate to oral production.

In relation to the intervention proposal, it should be noted that it has not been applied in the classroom and therefore it has not been possible to verify if the methodological strategies (scaffolding and CL) proposed meet the purpose (improve students' oral communication) for which it was designed.

It is also necessary to note that the methodology contained in the intervention proposal may find difficulties in being implemented by more traditional teachers. They often have resistance to change that students are those who have an active role and they are facilitators of learning.

We would have liked to implement the proposed intervention proposal to see the real impact of it on the development of the students' oral communication in English. This implementation would allow us to make an assessment of the proposal and, from there, introduce any changes, improvements and adaptations we considered appropriate. Furthermore we also consider very interesting the possibility of extending the intervention proposal to other topics, subjects and other levels as could be Pre-Primary Education, Primary Education and Secondary Education.

This intervention proposal would be interesting to inspire and guide further research to see the age and subjects that are more appropriate to work the concepts of scaffolding and CL, in a CLIL context, to improve students' oral communication. In addition, this intervention proposal could guide other studies to analyze the advantages or disadvantages of this methodology in other skills like reading, writing or listening.

If we had carried out this intervention proposal we believe that students had been very motivated throughout the proposal because they have an active role and they learn in an autonomous way. In this way, we break with traditional teaching in which students are passive recipients of information.

7. REFERENCES

Alibali, M (2006). *Does visual scaffolding facilitate students' mathematics learning? Evidence from early algebra*. Retrieved from http://ies.ed.gov/funding/grantsearch/details.asp?ID=54

Casal, S. (2008). Cooperative Learning in CLIL contexts: Ways to improve students' competences in the foreign language classroom. *Cooperative Learning in multicultural societies: Critical reflections*. Conference January 21 – 22, 2008. Turin, Italy.

Cerda-Vallés, C. & Querol-Julián, M. (2014). El aprendizaje cooperativo para el desarrollo de la competencia comunicativa oral en lengua inglesa de primaria. *Encuentro, 23*, 16-29.

Coyle, D. (2013). Listening to learners: an investigation into 'successful learning' across CLIL contexts. *International journal of bilingual education and bilingualism, 16*(3), 244-266.

Coyle, D., & Hood, P. D. Marsh (2010). *CLIL: Content and Language Integrated Learning*. Cambridge: Cambridge Univesity Press.

Donato, R. (1994). Collective scaffolding in second language learning. In J. P. Lantolfand & G. Appel (Eds.), *Vygotskian Approaches to Second Language Research* (pp. 33-56). Norwood, NJ: Ablex.

Eurydice Report (2006). *Content and Language Integrated Learning (CLIL) at school in Europe*. Brussels: Eurydice. Retrieved from: http://bookshop.europa.eu/en/content-and-language-integrated-learning-clil-at-school-in-europe-pbNCX106001

Ferreiro, R. (2007). *Nuevas alternativas de aprendizaje y enseñanza*. Sevilla: Editorial Trillas.

Ferrerio, R. & Calderón, M. (2006). *El ABC del aprendizaje cooperativo. Trabajo en equipo para enseñar y aprender*. México D.F.: Editorial Trillas.

Gibbons, P. (2002*). Scaffolding language, scaffolding learning: teaching second language learners in the mainstream classroom*. Portsmouth: Heinemann.

Gillies, R. M (2014). Cooperative learning: Developments in Research. *International Journal of Educational Psychology, 3*(2), 125-140.

Hammond, J. & Gibbons, P. (2001). What is scaffolding? In J. Hammond (Ed.). *Scaffolding: teaching and learning in language and literacy education* (pp. 1-14). Newton: Primary English teaching association.

Johnson, D.T., Johnson, R.T & Holubec, E. (1999).*El aprendizaje cooperativo en el*

aula. Buenos Aires: Paidós Educador. Retrieved from: http://cooperativo.sallep.net/El%20aprendizaje%20cooperativo%20en%20el%20aula.pdf

Kagan, S. & Kagan, M. (2009). *Kagan cooperative learning*. San Clemente: Kagan Publishing.

Llinares, A., Morton, T. & Whittaker, R. (2012). *The roles of language in CLIL*. Cambridge: Cambridge University Press.

LOE: Ley Orgánica 2/2006, de 3 de Mayo, de Educación. Publicado en B.O.E. nº 106, de 4 de Mayo.

LOMCE: Ley Orgánica 8/2013, de 9 de diciembre, para la mejora de la calidad educativa. Publicado en B.O.E. nº 295 de 10 de diciembre.

Marsh, D. (1994). *Bilingual Education & Content and Language Integrated Learning*. International Association for Cross-cultural Communication, Language, Teaching in the Member States of the European Union (Lingua). Paris: University of Sorbonne.

Mehisto, P., Marsh, D., & Frigols, M. J. (2008). *Uncovering CLIL: Content and language integrated learning in bilingual and multilingual education*. Oxfrod: Macmillan.

Moll, L. C. (Ed.). (1990). *Vygotsky and Education: Instructional Implications and Applications of Sociohistorical Psychology*. Cambridge: Cambridge University Press.

Pistorio, M. I. (2010). A blend of CLIL and cooperative learning creates a socially constructed learning environment. *Latin American Journal of Content & Language Integrated Learning*, *3*(1), 1-10. Retrieved from https://www.google.es/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwj0_M62uvnKAhVBbhoKHUGzAWYQFggfMAA&url=http%3A%2F%2Frevistas.unisabana.edu.co%2Findex.php%2FLACLIL%2Farticle%2Fdownload%2F2642%2F2778&usg=AFQjCNHs06ZTZCfieC2v70crBop85-a4xw&bvm=bv.114195076,d.ZWU

Sharpe, T. (2008). How can teacher talk support learning? *Linguistic and Education, 19(2)*, 132-148.

Van Lier, L. (1996).*Interaction in the Language Curriculum: Awareness, Autonomy and Authenticity*. London: Longman.

Van Lier, L. (2004). *The Ecology and Semiotics of Language Learning*. Dordrecht: Kluwer Academic.

Vygotsky, L.S. (1978). *Mind in Society*. Cambridge, MA: Harvard University Press.

Walqui, A. (2006). Scaffolding instruction for English language learners: A conceptual framework. *The International journal of Bilingual Education and Bilingualism, 9*(2), 159-180.

Walqui, A. & van Lier, L. (2010). *Scaffolding the Academic Success of Adolescent English Language Learners*. San Francisco: WestEd

Wood, D., Bruner, J. S., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Psychiatry, 17*(2), 89-100.

8. ANNEXES

Annex I. Poster with language expressions

- Energy is…
- We use energy to…
- Energy makes objects…
- I think…
- What do you think…?
- I like your idea / I don't like your idea
- I agree with you / I don't agree with you
- We think…

Annex II. Text of the energy

ENERGY

Energy is the ability of an object to move heat up or produce light. Energy also makes objects move faster, or change direction.

For example, people use energy to move and to keep warm. We get the energy we need from the food that we eat. Inside our bodies, the energy in food is transformed and enables us to move our muscles and produce heat.

Objects around us use energy to produce movement, heat or light. For example, a car uses energy in the form of petrol or diesel fuel to move. Many cookers use electrical energy to heat food, and light bulbs use electrical energy to produce light. Energy can also be found in nature: for example, the Sun produces heat and light. Plants use energy from the Sun to produce their food and grow.

[5]

[5] McLoughlin A. J (2014). *Think Do Learn*. Oxford: Oxford University Press