

UNIVERSIDAD DE OVIEDO

Facultad de Formación del Profesorado y Educación

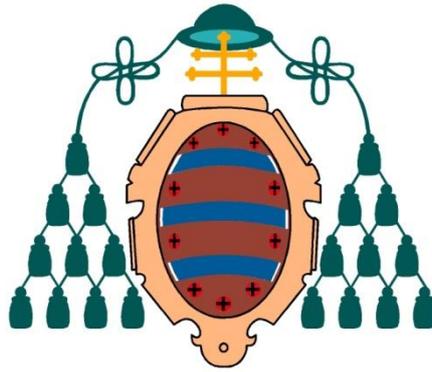
Trabajo Fin de Máster en Enseñanza Integrada de Lengua Inglesa
y Contenidos: Educación Infantil y Primaria

***CLIL: enhance of communicative skills and students'
satisfaction. Research project.***

Author: María Jesús Iglesias Reyes

Tutor: Francisco Javier Fernández Río

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1. Motivation

1.1. Definition

A definition about a concept is needed prior to talk about it. In this case, lots of definitions can be found. It is not a rigid term that we can define precisely. Depending on the authors, we can find slight differences. However, some facts are common to all of them.

These are some definitions from different authors:

“the contemporary (immediate) influence on the direction, vigor and persistence of action” (Atkinson, 1964, p.2)

“how behaviour gets started, is energised, is sustained, is directed, is stopped, and what kind of subjective reaction is present in the organism while all this is going on” (Jones, 1955, p.7)

“a process governing choice made by persons or lower organisms among alternative forms of voluntary activity” (Vroom, 1964, p.7)

“motivation has to do with a set of independent/dependent variable relationships that explain the direction, amplitude, and persistence of an individual’s behaviour, holding constant the effects of aptitude, skill, and understanding of the task, and the constraints operating in the environment” (Campbell and Pritchard, 1976, cited in Steers et al., 1996, p. 8)

We can see how all of them highlight the different applications of the word “motivation”. We may consider motivation attending to three different meanings: causal, attitudinal and activity (Evans, 1998). In the first case, the causal feature of motivation is referred to the factor that influences whether or not, and to what extent, we feel a predilection to do something (Evans, 1998). When we relate motivation to attitude, it means the state of mind that something provokes in us to do something (Evans, 1998). Finally, motivation as an activity refers to the action directed at an object (Evans, 1998).

Taking this into account, we can find a new definition of motivation which includes all the features mentioned before. Consequently, motivation is an internal state or condition (sometimes described as a need, desired, or want) that serves to activate or energize behaviour and give it direction (Kleinginna & Kleinginna, 1981).

Another author, Franken (1994) adds a new view on motivation. He thinks of motivation as the arousal, direction, and persistence of behaviour.

To sum up, we can say that motivation refers to the reason or reasons that make us engage in a particular behaviour (Huitt, 2001). These reasons may include a drive, a need, a desire to achieve a goal, a state of being or an ideal and initiates, guides and maintains goal-oriented behaviours (Huitt, 2001). It involves the biological, emotional, social and cognitive forces that activate behaviour (Huitt, 2001).

.Components of motivation

We can find three components of motivation: activation, persistence and intensity (Cherry, 2002). Action involves the decision to initiate a behaviour. Persistence refers to the continued effort towards a goal despite of the difficulties that may appear (Cherry, 2002). Intensity could be explained as the concentration and energy that goes into carrying on a goal (Cherry, 2002).

1.2. Types of motivation

There are two types of motivation which have been widely studied: intrinsic motivation and extrinsic motivation (Deci & Ryan, 2000).

.Intrinsic motivation

This term is used to refer to the doing of an activity for its own satisfactions rather than for some consequence (Deci & Ryan, 1985). This type of motivation takes place when a person gets the feeling to do something for fun or for the challenge it implies (Deci & Ryan, 2000). Other reasons like external pressures or rewards are not taken into account. Some years ago, through animal investigations, it was discovered that many organisms engage in exploratory, playful, and curiosity-driven behaviours even in the absence of support or reward (White, 1959). These unforced behaviours appear not to be done for any particular reason but for the positive experiences associated with the exercise and extension of our own capacities (Deci & Ryan, 2000). The natural, inquisitive, curious attitude of humans to learn and explore has never needed any special incentives (Deci & Ryan, 2000). Although intrinsic motivation is related to humans, it refers to the relation between individuals and activities. People may be intrinsically motivated to do some activities and not others, and not everybody

is intrinsically motivated for any particular task (Deci & Ryan, 2000). Motivation exists between a person and a task (Deci & Ryan, 2000). This is the reason why some authors have defined intrinsic motivation in terms of the task being interesting. Other authors have defined it in terms of the personal gratification that a person gets by solving a task.

.Extrinsic motivation

Although intrinsic motivation is very important, many of the activities people do are not intrinsically motivated (Deci & Ryan, 2000). As we grow up, social demands and roles make the intrinsic motivation diminish to take part into non-intrinsically interesting tasks (Deci & Ryan, 2000). Therefore, extrinsic motivation appears when we do something in order to obtain a particular benefit. We do not do it because of its own satisfactions (Deci & Ryan, 2000). Extrinsic motivation is the one that arise from outside of the person and usually involves rewards. There is also the Herzberg's Two Factor Theory (1959) that says that many external rewards do not really motivate people, but that if they were not there, the person could become de-motivated. Consequently, the type of extrinsic motivation vary depending on the relative autonomy that we have towards the activity (Deci & Ryan, 2000).

We can establish two differences between intrinsic and extrinsic motivation. The first one refers to the fact of doing an activity simply for the enjoyment rather than for its instrumental value. Furthermore, extrinsic motivation is said to be less effective than the intrinsic one because it comes from outside the person (Deci & Ryan, 2000; Cherry, 2002).

1.3. How can motivation influence students?

When we want to motivate students, we should take into account the two types of motivation mentioned before: intrinsic and extrinsic motivation. Intrinsic motivation is generally viewed as very important. It means that we do something because it is inherently interesting or enjoyable for us. Whereas doing something being extrinsically motivated means that we do it just because of the desired effect. Therefore, the ideal learning context is when the students are intrinsically motivated towards learning. If not, it would mean that they do something just because they are externally obliged to do so (Deci & Ryan, 2000).

On the other hand, some authors (Deci and Ryan, 2000) think that being extrinsically motivated when you are a learner is not necessarily something negative. If the learner has accepted the extrinsic goal and values the benefit of it, high quality motivation could also take place, although it is not intrinsic motivation.

If intrinsic motivation is low or not enough, there are several factors we can use to stimulate learners . Extrinsic motivation can be used to keep them involved in the learning process (Burston & Kyprianou, 2009):

- Content is relevant. We should make it more interesting, more familiar and include topics previously studied.
- Being able to make classes more familiar for them will make students pay attention to details that would otherwise be missed.
- The purpose is also very important. We should try to involve students to do something and make them understand why and how are they doing that.

We can conclude that it is highly relevant to create, keep and protect motivation. It fosters learners to enjoy the activities they do and. Consequently, they will be able to see what they learn as something worthy for their lives.

2. Anxiety

When teachers want learners to get involved in the learning process, motivation is not the only part to take into account despite of its importance. There are other factors we should control if we want a successful experience when teaching. This is the case of anxiety.

.Definition

This term embraces several disorders that cause: nervousness, fear, apprehension, and worrying (Bourne, 2005). Anxiety occurs when people have a reaction that is out of proportion with something which is considered to be normal (Gasparovich, 2008). It is a combination of biochemical changes in the body, the person's own history and memory, and the social context. The disorders already mentioned affect the way we feel and behave. It is important to distinguish between anxiety as a feeling or experience, and an anxiety disorder (Farrell & Barret, 2007). A person may feel anxious at a situation without having an anxiety disorder. Therefore, anxiety is a common experience that we can all have from time to time in our lives.

We can easily relate anxiety to education. Many people experience a state of worry or fear before facing something challenging like a test, examination, recital or interview (Gasparovich, 2008; Coyle, Hood & Marsh, 2010).

Nowadays, it is especially common to link anxiety with language learning (for example, oral production is supposed to be highly used, but it is viewed as something scaring by learners). In fact, some authors (Horwitz & Cope, 1986) have thought about foreign language anxiety as a specific anxiety. It is experienced by some people when they learn or use a second language. It is said to be similar to speaking anxiety and test anxiety (Horwitz, 2001). Foreign language anxiety (FLA) is often described as the embarrassment some people feel about their limited abilities to use the language proficiently (Horwitz & Cope, 1986). This sensation keeps them from showing their true personality. The feeling of looking "ridiculous" in front others when using a second language also contributes to create anxiety in students (*Texas Language Technology Center, 2010*).

Anxiety can be related to classroom climate and/or to the instructional conditions (Coyle, Hood & Marsh, 2010). If teachers want a positive classroom atmosphere, they should try to diminish the level of anxiety among students (Coyle, Hood & Marsh, 2010). Consequently, learners will get involved in the learning process without any fears.

Dörnyei (2001), suggests several basic strategies to decrease anxiety in the classrooms:

- Avoid comparison among students
- Promote cooperation instead of competition
- Help learners to accept the fact that they might make some mistakes. It is as part of the learning process
- Design tests and assessment procedures completely “transparent”. Involve students in the negotiation of the final mark

There are also actions teachers can follow to prevent and diminish anxiety among the students (*Texas Language Technological Center, 2010*):

- Attacking their negative thoughts. Many students provoke their anxiety by setting unreasonable standards for their performance. This is what happens when they try to be accurate instead of focus on communicative success. The teacher can help by making students focus on what they are doing right rather than on mistakes.
- Plan lessons from the students’ perspective. They should ask themselves if the activities they are thinking about might cause anxiety reactions in the students.
- Talk with the students about language anxiety issues. As a consequences, they can realize that their teacher actually knows and understands that situation and cares about it.

3. Teaching through CLIL, a motivational approach

3.1. Defining CLIL

CLIL (Content and Language Integrated Learning) is a methodology which its aim is to teach a curricular subject by using a foreign language (Coyle, 2006) Therefore, it is a dual-focused scheme, because it involves both language and content.

The main function of CLIL is to enable the students to learn both the language and the subjects. They learn a new language by using it and, at the same time, they are also taught contents (Coyle, Hood & Marsh, 2010). Thus, CLIL has a double aim: learn an additional language, and learn a content (Marsh, 1994).

It has been developed since the 90s, rooted in the tradition of the 60s and 70s (Marsh, 2002). Therefore, is not a new methodology. We can consider CLIL as a convergence of methods and trends. Globalization, multilingual society, cultural diversity, international mobility and lifelong learning, are the context and reasons why this approach is used and worthy nowadays (Marsh, 2002; Marsh, Mehisto, Wolff & Frigols, 2010)

3.2.Characteristics of CLIL

We can adapt CLIL methodology in different ways depending on the school we are working, the students we have, or the country we are in. However, it will always have these characteristics:

- Different sorts of CLIL to apply

CLIL involves a range of models which can be applied in a variety of ways with diverse types of learners (Coyle, Hood & Marsh, 2010). Each school should adopt those methods within the CLIL approach which would best suit the respective objectives. To know which methods are more suitable, it is necessary to examine the potential and constraints within the school, the needs of the beneficiaries, and the types of outcome which could be achieved.

- Dual focused

CLIL provides the students the learning of a language and other subjects in a mixed way. It means that it requires two different goals (Coyle, Hood & Marsh, 2010). One related to the subject, and one linked to the language. That is a reason why CLIL is not a matter of simply changing the language of instruction. The students will have to demonstrate that they have developed skills of the target language and the contents (Coyle, Hood & Marsh, 2010).

- Student- oriented

It is easy to realize that this approach is student-oriented (Frigols, 2010). Almost all the classes start with the assumption that the children do not have any prior knowledge of the language. Therefore, teachers begin by checking the background experience that students have about it. It is a constructivist principle (De Vries et al., 2002). Constructivism is a CLIL characteristic (Frigols, 2010).

Scaffolding is a very important concept in this kind of methodology (Van Der Stuyf, 2002) Teachers will always be there to support pupils and help them sort out problems. There are lots of ways to do that. Teachers can simplify tasks for the children: dividing them into different steps, reminding them of what the goal of the activity is, or showing them other ideas to finish the tasks. For example, repetition and paraphrasing help the children process the same information and have a clear idea of what they have to do (Bentley, 2010) As time goes by and the students begin to be more self-sufficient, there is less need to apply this.

There is another important reason for considering CLIL a student-oriented approach. Teachers will provide their students a naturally atmosphere to learn the target language (Lara, 2009) In other words, pupils will have the opportunity to practice the language they are learning whilst they learn it.

- Constructivist approach

CLIL scheme helps students build up knowledge (Frigols, 2010). The fact that they use the target language as a tool for their learning give us evidence about it. Teachers provide students with a natural environment to practice it (Frigols, 2010).

They do not only act as passive recipient, but as individuals who use that knowledge in their academic lives to develop their language skills.

Students will also achieve a suitable level of contents (Coyle, Hood & Marsh, 2010). Using a foreign language does not mean that we have to lower the level of the objectives we want the pupils to achieve. Although at first it can be a slow process, we, as teachers, will be able to teach them contents as if we were using the mother tongue (Bentley, 2010).

- Basic competences

CLIL as a methodology makes easier the achievement of basic competences (Lorenzo, 2009). Students will end up having great reading, writing, speaking and listening skills when using this language. Besides, the fact that they have to master more than one language enhances their ability of thinking. Consequently, it makes students more capable at academic issues (Coyle, Hood & Marsh, 2010).

We can also point out that students will enrich their social skills when they are taught using this approach (Coyle, 2006). Since there is a language aim, they will be encouraged to use the target language as much as possible during the classes. Therefore, they will use it when talking both with their teachers and their mates.

3.3. Meaningful learning

Both teachers and learners can enhance their learning process and get better results by using some techniques while studying and working.

.Scaffolding

In our families, we learn hand to hand with our parents to assume responsibility and gain greater independence. The same should happen in the schools. Children need to learn to work individually with the help of their teachers (Coyle, Hood & Marsh, 2010).

Being able to work individually is a result of a previous work through a social process. Therefore, scaffolding is a partner-assisted learning process (Walqui, 2006). It leads learners to reach beyond what they are able to achieve alone, to participate in new situations and to confront new tasks (Gibbons, 2002).

Scaffolding helps students to reach previously acquired learning, to analyse it, to process new information, to create new relational links and to take their understanding several steps further (Mehisto, Marsh & Frigols, 2008). If students feel frustrated because they do not know how to work or study, scaffolding builds success (Coffey, 2010). The adult helps the children in their learning development. Therefore, students feel secure and become motivated to work and study. Pupils are scaffolded by someone who has more experience, not just teachers but other learners or resources too can help (Coyle, Hood & Marsh, 2010). It means that peer work among mates is also a good option in the scaffolding issue.

Scaffolding is connected with the “zone of proximal development”, introduced by Vygotsky (1978). It describes the type of learning which is “always challenging yet potentially within reach of individual learners on conditions that appropriate support, scaffolding and guidance are provided” (Coyle, Hood & Marsh, 2010, p.29).

To sum up, scaffolding is as a process in which the teacher or a peer maintains a balance between cognitive challenge for learners and the appropriate and decreasing

support as learners progress (Reisser, 2004). As it is slowly removed, the students build up confidence and knowledge towards the next steps.

This is an example of how to apply the scaffolding process in a class (Mehisto, Frigols & Marsh, 2008):

1. The teacher explains the whole class how to do an activity.
2. The teacher helps the students to work through a similar activity.
3. Pupils do a similar activity in groups.
4. Finally, children work independently.

.Anchoring into previous learning

It is connected with the previous tool, scaffolding. When we want students to make progress we should link what they are doing to prior learning and knowledge (Bentley, 2010). Reproducing what we have been taught does not mean that we have understood it. On the other hand, if we are able to establish relations among contents, those contents will fix learning in memory (Petty, 2006). The first relational link needed to be made is to one's prior learning. To make them acquire new contents, the knowledge and understanding that they already have is the base to achieve new learning.

Go back to previous knowledge is useful both for content and language learning (Mehisto, Marsh & Frigols, 2008). In the case of language, we can ask the students to remember the type of vocabulary and grammar that may be useful for the content topic they are working on (Mehisto, Marsh & Frigols, 2008). But the language is not the only element that can make students learn better the new contents. Their attitudes, opinions or experiences about the new topic can help too. Above all, learning a new language through the CLIL approach is the best way to do it. There is a real context in which to apply the communicative skills required to learn a language (Coyle, Hood & Marsh, 2010). If it was not the case, the learning of the language would be less effective. We have to teach a language once a context and a personal connection has been created (Mehisto, Marsh & Frigols, 2008). Otherwise, we will not get the same

positive results. Consequently, the use and acquisition of the language in CLIL is an example of how important is to link our knowledge with our previous thoughts and ideas about it (Mehisto, Marsh & Frigols, 2008).

As Gibbons says (2002) there is strong evidence that just-in-time language teaching can be better and more effective than pre-teaching vocabulary.

When we want to introduce the students a new content, we have to connect it with their previous knowledge. It is necessary to use the language that they understand and give examples from their everyday life to build up a foundation for new learning. Then, we have to offer the students key concepts and vocabulary, and connect the content with other subjects. Those are the first steps to build up new knowledge (Mehisto, Marsh & Frigols, 2008).

A good anchoring technique is brainstorming because students say whatever comes to their mind related to the topic (Balackova, 2003). It is a common procedure in CLIL . A more sophisticated brainstorming is categorizing the information on a specific topic under different subheadings.

It is also very important to connect the new contents with the ones they already know from other subjects, building logical associations among them (Mehisto, Marsh & Frigols, 2008). Another good option is to base the new activities on their experiences and their everyday life (Coyle, Hood & Marsh, 2010). That way, activities will become meaningful, and will help children achieve the goals set.

All this procedures are related to constructivism as John Dewey (1910) showed us. This theory suggests that “people learn by actively constructing knowledge, weighing new information against their previous understanding, thinking about and working through discrepancies and coming to a new understanding” (Donato and Terry, 1995, p.98). In CLIL, the combination of different subjects and language, and the connection between old and new information, help children experience a better learning process (Coyle, Hood & Marsh, 2010).

As Slavin says (1995), previous experiences and knowledge are considered key factors influencing learning. They do not only allow the learner to make a first contact with the new content, but they are also the bases to construct new meanings.

Teachers who want students to anchor into their previous learning have different options (Mehisto, Marsh & Frigols, 2008):

- work on activities that activate their previous knowledge
- ask students to explain concepts, ideas or reasons to their peers
- suggest them to provide help to their mates
- brainstorming
- mind maps
- present new contents making links with previous knowledge

.Chunking and repacking knowledge

When a new content is taught, sometimes it is difficult to acquire it at once. Therefore, a good option is to divide the information into pieces to integrate it better (Mehisto, Marsh & Frigols, 2008). Our minds reject excess information.

Chunking items into interrelated units allows the short-term memory to process the information (Mehisto, Marsh & Frigols, 2008). As a consequence, the child will feel more confident and emotionally secure. Each small chunk of information students work through will build up in them a feeling of success. Another reason why this technique is also useful is that when we chunk the topic into small parts, we tend to do it following a logical level of difficulty (Mehisto, Marsh & Frigols, 2008). If children understand the first pieces of information, the last ones, which are the most difficult, will not be as hard for them.

This procedure can also help teachers when they want to use scaffolding with their students. Chunking is a tool that promotes a step-by-step learning process (Rosenbloom & Newell, 1982).

Teachers can put it into practice through a variety of activities (Mehisto, Marsh & Frigols, 2008):

- Graphic organizers. Tables, charts, graphs, diagrams, mind maps, webs and pictures help students to classify ideas and communicate more effectively. These graphic organizers are useful to: structure writing projects, in problem solving, decision making, studying, planning research and brainstorming.

- Expanding the expander. Students start with a given concept. They should develop it with information using the concept expander. That is, adding words and sentences to different categories related with the initial topic.

- Mnemonic devices. The use of catchy sentences, phrases or jingles can help children to recall information. What is more, we should encourage students to make up their own.

.Fostering creative and critical thinking

Activities that can lead to a creative and critical thinking are always positive for the students.

When children apply creative thinking they are developing higher-order ideas, processes, relational links, objects, synergies and quality relationships (Mehisto, Marsh & Frigols, 2008) . Whereas critical thinking involves the evaluating of all these elements.

We can define critical thinking as a mental process that students use to plan, describe and assess their thinking and learning (Moseley et al, 2005). Critical thinking can also be considered self-directed thinking (Paul & Elder, 2007). If children improve the quality of their thinking, they will improve learning.

Creative thinking is often used to analyse and solve problems in our everyday life. As pupils try to imagine different ways to sort out their problems, they are developing this kind of thinking (Mehisto, Marsh & Frigols, 2008). Creativity is also used to explain ideas and to evaluate plans or results from different points of view.

Both types of thinking are actually interconnected (Paul & Elder, 2008). If students develop one of them, the other one will be developed as well. A good “tool” for children is having good attitudes and feelings. The influence of them when thinking can enhance their capacity to be more creative and critical. It has been proof that our minds reject information that causes us negative feelings (Mehisto, Marsh & Frigols, 2008). In contrast, positive emotions improve the ability to think flexibly and with more complexity, making it easier to find solutions to problems (Goleman, 1995).

We have a variety of activities to use in class to develop critical thinking. These tasks will help students become more independent learners and effectively manage their own thinking (Mehisto, Marsh & Frigols, 2008). The most common task used to foster critical thinking is Bloom’s taxonomy (Bloom, 1956). It consists on a pyramid divided into different steps that students should follow when working. These six levels of difficulty start with practical low order thinking, and continue moving upwards to more abstract and complex high order skills. The author thinks that children need to develop both low and high order thinking skills. Using this taxonomy, learners apply their own knowledge and understanding and analyse it. Finally, they create something new. This procedure will lead to higher levels of learning, and can also help teachers evaluate their progression (Mehisto, Marsh & Frigols, 2008). Another option for teachers is to ask them questions that promote critical thinking, making them think.

.Learning styles

CLIL methodology gives teachers the opportunity to work with different teaching and learning approaches to improve students’ learning (Coyle, Hood & Marsh, 2010). Using a wide variety of procedure, students will have a big range of strategies to face learning, that is, to achieve aims better (Mehisto, Marsh & Frigols, 2008). Another advantage is that learners are aware of the different learning styles so they will have lots of perspectives. Having different perspectives not only develop their capacity to think critically. It also help pupils understand better others and be able to work with their classmates, while building communication and teamwork skills (Mehisto, Marsh & Frigols, 2008).

Teachers should also evaluate the teaching and learning styles they use in order to adapt or change them if necessary.

.Go beyond the comfort zone

We have been talking about strategies to acquire new knowledge and understanding such as scaffolding and critical thinking. They let students go beyond the zone of proximal development. We can set new challenges for our students to make them go beyond the set objectives, acquiring new contents (Mehisto, Marsh & Frigols, 2008). It would mean that the learning process has been successful enough. Therefore, we can students try new challenges that might not be included among the objectives of the subject.

3.4. Advantages of CLIL

.From a linguistic point of view

- Learn an additional language. The most important advantage is that students learn an additional language (Coyle, Hood & Marsh, 2010). Apart from being able to communicate in their mother tongue, they will be given the opportunity to master a new language.
- Use the language to learn. They will not only achieve the knowledge of the target language. They will also use it as a tool. In other words, they will learn the language by using it during the classes (Coyle, Hood & Marsh, 2010).
- Linguistic contact-immersion. Students will experience being taught some subjects in a second language. This means a high level of exposure to the language (Richmond Publishing, 2012). Children should experience this methodology as soon as possible.
- Real situations and materials. A great advantage of this scheme is that students will learn the language using it in a natural atmosphere, in realistic situations (Coyle, Hood & Marsh, 2010). When we learn a new language we are not given the opportunity to use it in everyday situations as in CLIL. Besides, students will be provided a huge amount of materials that will help them assimilate the main ideas that teachers try to teach them. For example, visual materials will be useful for them to understand the contents. It is very important to provide realistic situations. That way we can feel able to use the language in your everyday life in case you need it.

.From a cultural point of view

- Get to know other cultures. Culture is something in which language is involved as it is an important part of it (Coyle, Hood & Marsh, 2010). Languages give us the key to interpret the world and its different cultures. It would be quite difficult with a monolingual knowledge.

- The concept of “otherness”. The development of an additional language will provide children with broader views and the interest of knowing about the cultural diversity they are surrounded by (Coyle, 2005).

- Multilingualism / multiculturalism. Students have the opportunity to know other cultures (Coyle, Hood & Marsh, 2010). What is more, parents see CLIL as a good method to prepare their children for the modern era.

- Cultural diversity. CLIL provides children with broader world views and encourage them to approach cultural diversity (Marsh, 2000).

- Social interaction. CLIL also works on social interaction. To practice the language you are learning, you need to interact with your mates as much as possible during the classes.

.From a pedagogical point of view

- Learning to learn. Children learn the target language by learning, by using it without focusing only on it (Coyle, Hood & Marsh, 2010).

- Thinking in a second language. Students who learn different languages experience a deeper develop of their thinking processes (Marsh, 2000). Being able to think in more than one language is a great advantage to study. Being able to think in different languages can enrich our understanding of concepts, and help broaden our conceptual resources (Marsh, 2000).

- Dual approach. As it has been mentioned along the essay, CLIL has two main aims: content and language knowledge. From a pedagogical point of view, this will enhance students’ intelligence due to the ability of mastering more than one language (Marsh, 2000).

- Motivation. Every methodology should promote motivation. It is necessary for children to become interested in what they are being taught. Regarding CLIL, teachers should develop in their students a “can do” attitude towards language learning (Lasagabaster & Huguet 2007). Some students prefer to learn as they use and use as they learn, which is a common request nowadays. One of CLIL’s successful factor is

immediacy of purpose, which is positively acknowledged by young people (Marsh, 2002).

- Cognitive engagement. The use of CLIL offers the opportunity to learn to “think” in the language (Coyle, Hood & Marsh, 2010). It is not only about learning the language itself as the most important learning focus. To support effective learning, teachers must take into account not only the knowledge and skills, but also cognitive engagement of the students (Coyle, Hood & Marsh, 2010).

It is also very important that CLIL provides learners with opportunities in which they can make cross-curricular connections between information they obtain in different classes. As a result, students learn to draw parallels between different subject-related topics (Grabe and Stoller, 1997).

Therefore, if the CLIL approach has many benefits that contribute to enhance the language and subject learning and, if this method can also make students better at other subjects. We can conclude that CLIL’s advantages lead to good academic results.

4. The role of teachers

As described in previous chapters, CLIL is a powerful methodology to teach both content and language at the same time. However, teaching content through a foreign language without changing the pedagogy is not enough to get successful results (Ruiz de Zarobe & Jiménez Catalán, 2009).

The implantation of CLIL is most triumphant when teachers show the desire to think beyond their field. They realize that is essential to care about issues related to learners (Ruiz de Zarobe & Jiménez Catalán, 2009).

The dual focused feature of CLIL develops in teachers the need to communicate with their colleagues from other departments (Coyle, Hood & Marsh, 2010). They may request information from other subjects which contributes to create cross-curricular links. Modern Foreign Languages Teachers have to enrich their language knowledge with content elements from other areas (Ruiz de Zarobe & Jiménez Catalán, 2009). On the other side, CLIL allows subject teachers to enhance their instructional methods related to the second language. In conclusion, CLIL keep teachers updating their knowledge and abilities (Ruiz de Zarobe & Jiménez Catalán, 2009).

CLIL teachers are expected to accomplish the following aspects related to the cognitive, social and affective dimension of teaching (Marsh, Mehisto, Wolff & Frigols, 2010):

- To explore and to articulate their own understanding of, and attitudes towards, the principles of teaching and learning.
- To explore and to articulate their perception of, and attitudes headed for content and language learning, as well as learning skills development in CLIL.
- To define their own pedagogical and content competences
- To set their level of language competence according to the Common European Framework of Reference.
- To explore and to articulate ways of working with learners to identify, in cooperation with the students, socio-cultural, personal and vocational learning needs.
- To cooperate with colleagues and other CLIL partners, and to describe mechanisms for cooperation

- To expand and to renovate their own professional development plan
- To investigate and to deal with the multiple roles and identities of a CLIL

teacher

- To explore and to manage the impact of the own attitudes and behaviour during the learning process

According to their understanding of the main characteristics of this approach, CLIL teachers should be able (Marsh, Mehisto, Wolff & Frigols, 2010):

- To describe core features of the CLIL procedure
- To illustrate common misconceptions
- To contextualise CLIL with the school, regional and national curriculum
- To articulate and discuss CLIL with school's internal and external participants
- To describe strategies to integrate both CLIL and school's ethos

In relation with content and language awareness, teachers should be able (Marsh, Mehisto, Wolff & Frigols, 2010):

- To identify the proper content to be taught as well as the possible obstacles.
- To analyse content through different cultural perspectives.
- To set up strategies to support language learning in content lessons.
- To create opportunities to reinforce content learning in language classes.
- To apply strategies in order to foster critical thinking in students using content and language.
- To apply strategies to foster in students the habit of anchoring into previous learning.
- To support learner awareness of language and the language learning process.
- To explain how the first language can support additional language learning.
- To design tactics to make the transition from monolingual to bilingual teaching and learning.
- To create and implement strategies that focus on the key concepts needed to improve language and content learning, as well as on the learning skills required.
- To determine the implication of age in language learning and use.
- To connect language awareness issues to content learning and cognition.

- To scaffold language learning during content lessons.
- To take into account the social constructivist theory to enhance teaching and learning.
- To use theories from other language learning fields to enhance learning strategies.

Contribute to build learners' capacity is a very important principle. Therefore, teachers should be able (Marsh, Mehisto, Wolff & Frigols, 2010):

- To self-motivate
- To self-evaluate in order to become more reflective and autonomous.
- To give, receive and use teacher and peer assessment and feedback in a constructive way.
- To collaborate with the teacher so as to reflect on, an improve learning.
- To identify and analyse the favourite learning styles so as to expand these and others.

Cooperation with colleagues is a basic tactic. Teachers should be able (Marsh, Mehisto, Wolff & Frigols, 2010):

- To cooperate with mates and have a wide group of cooperation strategies and skills
- To improve learning

Teachers will have to deal with strategies. They will need to be able (Marsh, Mehisto, Wolff & Frigols, 2010) :

- To arrange strategies for the co-construction of knowledge with learners and for cooperative learning
- To support continuous language growth

CLIL is a student-oriented methodology. Consequently, teachers should be able (Marsh, Mehisto, Wolff & Frigols, 2010):

- To work with learners in order to jointly identify learner's needs
- To design CLIL lessons according to the context of a given curricula

- To identify key concepts of content subjects and adapt them to the students' different competences and needs regarding the language
- To set goals in cooperation with learners taking into consideration the language, the content, and the learning skills
- To keep a triple focus: content, language and the development of learning skills
- To anchor into previous knowledge, skills, attitudes and experiences of learners
- To work in order to acquire the European Key Competences for Lifelong Learning

Build up meaningful learning is one of the principal tenets of CLIL. thus, teachers should be able (Marsh, Mehisto, Wolff & Frigols, 2010):

- To support students in appreciate learning through an additional language
- To create authentic contexts in which students can get involved into meaningful learning environments and experiences
- To generate supportive structures to foster communication with other CLIL language speakers

Every learning process needs an assessment. Therefore, teachers should be able (Marsh, Mehisto, Wolff & Frigols, 2010):

- To clarify CLIL-specific assessment needs and objectives and implement the consequent assessment tools
- To identify learners' previous knowledge
- To consider the content, the language, and the learning skills
- To direct learners in using portfolio-based approaches to foster learning, teaching and assessment
- To use formative and summative assessment
- To assess learners by taking into account their previous achievement and by valuating the progression made
- To use self-assessment and peer-assessment to foster learners in taking greater responsibility for their learning
- To specify the difficulties of assessment and propose ways to avoid them

CLIL teachers are reflective when they are able (Marsh, Mehisto, Wolff & Frigols, 2010) :

- To discuss classroom and student research methodology
- To guide action research in collaboration with both colleagues and students
- To research about key findings relevant to CLIL
- To critically analyse research articles on CLIL
- To compare with other regions or countries when interpreting and planning research and evaluation
- To explain strategies and tools for self, peer and student evaluation of their teaching practices
- To apply self, peer and student evaluation to enhance their own practice and student learning
- To critically interpret research and evaluation results

Teachers need to favour learning resources and environments. They should be able (Marsh, Mehisto, Wolff & Frigols, 2010) :

- To keep a triple focus on content, language and learning skills
- To design and use cognitively and linguistically suitable learning materials
- To create criteria for developing CLIL resources
- To describe criteria and strategies for using non-classroom and non-school learning atmosphere
- To assess learning resources and environments to identify potential difficulties and solutions to deal with them
- To choose, create, adapt and access materials, develop learning resources and access learning environments
- To help learners build up cross-curricular links

In the classroom, CLIL teachers, with their management procedures should be able (Marsh, Mehisto, Wolff & Frigols, 2010):

- To use a great variety of classroom set-ups to promote student communication, cooperative learning and leadership
- To use appropriate language

- To recognise and take the most of opportunities provided by learners' linguistic and cultural diversity

- To cater for learners with an extensive range of needs

- To co-create with students a non-threatening environment to make students be participative

CLIL demands the development of quality. For that reason, teachers should be able (Marsh, Mehisto, Wolff & Frigols, 2010):

- To work with different models

- To employ the principles of professional learning communities, models and strategies

- To work with internal and external colleagues

- To symbolize the interests of CLIL in public relations

- To describe ethical issues which are relevant to CLIL like the inclusive ones

We can sum up all the abilities, competences and knowledge CLIL teachers should have as follows:

- .Language/communication-based competences

In an English lesson, communicative competence is the main aim of teaching. It involves both accuracy and fluency. The ultimate aim of a subject session is to develop the correspondent type of thinking (Novotná & Hofmanová, 2002). For example, learning mathematics consists on finding appropriate methods of learning the language of mathematicians (Zazkis, 2000).

Thus, CLIL teachers should have a good mastery of the target language and turn to the learners' mother tongue carefully. Language switching is a natural communication strategy for learners. Specially in the first stages, teachers should allow students to use it. In addition, learners whose attention is not focused on language content, should be guided by the teachers. It is important that teachers provide these students with access to spontaneous situations to speak (Novotná & Hofmanová, 2002).

.Methodology-based competences

Teacher's responsibility is to let the students develop their individual and different processes of knowledge building, meaning construction and attitude development (De Corte, 2000). In order to support learners' success, it is very important that the teacher examines and analyses possible difficulties. The CLIL teacher should be able to diminish the obstacles. A wide variety of strategies to overcome individual learning problems should be ready to apply (Novotná & Hofmanová, 2002).

.Class management competences

The teacher should be able to decide the best methodology to work with students. It is necessary to maintain their interest, to motivate them and to provide them with relevant learning opportunities (Novotná & Hofmanová, 2002).

Based on all the information mentioned until now, we can conclude that being a CLIL teacher requires a wide variety of abilities, knowledge and competences. Therefore, it would be suitable to provide future CLIL teachers with an appropriate and specific professional training.

5. Student-centred learning pedagogies

5.1. Student-centred learning

.Origin of the term “student-centred learning”

The concept “student-centred learning” has been ascribed to Hayward as early as 1905, and to Dewey’s work in 1956 (O’Sullivan, 2003). Carl Rogers was the person who expanded this approach into a general theory of education (Burnard, 1999 & Rogoff, 1999). The expression “student-centred learning” was also associated with the work of Piaget and with Malcolm Knowles (Burnard, 1999). Carls Rogers (1983a), in his book “Freedom to learn for the 80s”, describes the change in power from the teacher to the student. He asserted that a transformation was needed in the traditional environment. The reason was the educational atmosphere that made students become inactive, indifferent and bored. Froebel influenced the concept of child-centred education in the school system. He thought that the teacher should not interfere this process of maturation, but act as a guide (Simon, 1999).

The shift from teaching to an emphasis on learning has fostered power to be moved from the teacher to the student (Barr & Tagg, 1995). The teacher-focused transmission of information began to be increasingly criticized. Therefore “student-centred learning” commenced to be considered a widespread alternative approach (Lea et al., 2003). Many institutions and educators claimed to be using this approach into practice although, really, it was not true (Lea et al., 2003).

.What is student-centred learning?

Kember (1997) described two approaches in teaching: the teacher-centred/content oriented conception, and the student-centred/ learning oriented conception. However, he supports “student-centred learning” and its views. The analysis of this approach is clear: “knowledge is constructed by students and that the lecturer is a facilitator of learning rather than a presenter of information” (O’Neill & McMahon, 2005). Burnard (1999, p. 244) adds “students might not only choose what to study, but how and why that topic might be an interesting one to study”. The definition emphasizes the idea of students having “choice” in their learning.

Harden and Crosby (2000) describe teacher-centred learning strategies as the teacher transmitting knowledge to the students. In contradiction, student-centred learning is described as the things students do to achieve learning. This definition highlights the concept of the student “doing”.

Lea et al. (2003) summarises some of the tenets that should rule student-centred learning:

- The confidence on active rather than passive learning
- An emphasis on deep learning and understanding
- Increased responsibility of the student
- An better sense of autonomy in the learner
- An interdependent relation between the teacher and the learner
- A learner-teacher respectful relationship
- A reflexive view of the teaching and learning process by both the teacher and

the learner

For Gibbs (1995), student-centred lessons should emphasize:

- Learner activity rather than passivity
- Students’ experience outside and previous to the course
- Process and competence rather than content
- Key decisions made by the students through negotiation with the teachers

According to Gibbs (1995, p. 1), students should opine about “what is to be learnt, how and when it is to be learnt, with what outcome, what criteria and standards are to be used, how the judgements are made and by whom the judgements are made”. The goals of the school should meet the goals of the students (Harmon & Hirumi, 1996). This method seeks to provide the focus and structure that lets students take responsibility for the cognitive and metacognitive aspects of their learning (Bereiter & Scardamalia, 1993; Elen et al., 2007). It is also important that students are motivated to fully engage with their learning (Maclellan, 2008).

One of the aims of student-centred learning is to make students experience creative learning to use it in the real world (Thornburg, 1995). Students need to

explore on their own. That way, they will develop their critical thinking and social skills at the same time (Smith, 2004).

The student-centred approach is related to the constructivist view. Both of them place the importance on activity, discovery and independent learning (Carlile & Jordan, 2005). We can also include the cognitive theory as a principle that cares about activity (Cob, 1999). The difference between this theory and constructivism is how to develop the activities. The cognitive view supports the idea that the activity on learning takes places in the mind (O'Neill & McHalon, 2005). However, the constructivists relate it more to physical performances like projects (O'Neill & McHalon, 2005).

In summary, the literature suggests different conceptions about “student-centred learning”:

- Concept of the student’s choice in their education
- Student doing more than the lecturer (active in opposition to passive learning)
- The shift in the power relationship between the teacher and the student

In the next table, we can observe the main differences between teacher-centred and learner-centred instruction:

“Teacher vs. Learner-Centred Instruction”

<u>Teacher-Centred</u>	<u>Learner-Centred</u>
Focus is on the instructor	Focus is on both students and the instructor
Focus is on language forms and structures (what the instructor knows about the language)	Focus is on language use in typical situations (how students will use the language)
Instructor talks; students listen	Instructor models; students interact with instructor and one another
Students work alone	Students work in pairs, in groups, or alone depending on the purpose of the activity
The instructor monitors and corrects every student utterance	Students talk without constant instructor monitoring; the instructor provides feedback/correction when questions arise
The instructor answers students' questions about language	Students answer each other's questions, using the instructor as an information resource
The instructor chooses topics	Students have some choice of topics
The instructor evaluates student learning	Students evaluate their own learning; the instructor also evaluates
Classroom is quiet	Classroom is often noisy and busy

(Source: Huba & Freed, 2000)

.Limitations and concerns

A classroom needs both teachers and students to function effectively. The use of a student-centred learning approach does not mean that we have to ignore the teacher (Smith, 2004). We should provide the students with the best way of using student-centred learning. It will create a successful environment for them (Eaton, 1994). It is possible that, at the same time students are involved in the student-centred approach with one teacher, a teacher-centred approach is used by other colleagues

(Smith, 2004). Situations like that give relevance to the fact that we should give students time to adjust themselves to this new approach (Smith, 2004). Finally, there is the case of teachers who may not have been taught in that way. They have to learn new procedures like the student-centred approach (Dinan & Frydrychowski, 1995).

.Implications for teaching

Every teacher that wants to follow this approach, should (O'Neill & McMahon, 2005):

- Make the student more active in acquiring knowledge and skills
- Make the student more aware of what he/she is doing and why he/she is doing it
- Focus on interaction among students and between the students and her/him
- Focus on transferable skills. Look beyond the immediate course.

.Implications for assessment

As Black (1999) states, there are some difficulties in the area of assessment that need to be corrected. Marks and grades are over emphasized. In contrast, advice and learning are not enough valued. Students are compared among them, which highlights competition rather than personal improvement. It will be helpful to use self-assessment to make students “take responsibility for their own learning” (Black, 1999, p. 126). The use of formative assessment, which emphasizes feedback to students on their knowledge, would “enhance their learning” (Light and Cox, 2001, p. 170). Feedback will help learners know their learning gaps and the areas they should develop (O'Neill & McMahon, 2004). Gibbs (1995), suggests examples of student-centred assessment: diaries, blogs and journals, portfolios, peer/self assessment, learning contracts and negotiated assessment, projects, group work, profiles, skills and competences.

When using peer and self-assessment, teachers give control and responsibility back to the student. They would be emphasizing “an increased sense of autonomy in the learner”, as mentioned in Lea et al.’s definition of student-centred learning (2003).

Learning/negotiated contracts are goals set by the students depending on their learning gaps (Knight, 2002). Choice is one of the characteristics of student-centred learning, as the concept of negotiation proves.

.Effectiveness and critiques of student-centred learning

Student-centred learning appears to be reflective of today's society where choice and democracy are important concepts (O'Neill & McMahon, 2004). The main critique of student-centred learning is its focus on the individual learner (O'Neill & McMahon, 2004). Some difficulties are: the resources needed to implement it, students and staff belief in the system, and students' lack of familiarity with the system (O'Neill & McMahon, 2004). The importance of the social context of learning and the interaction is emphasized in the socio-cultural view of learning (Bredo, 1999). O'Sullivan (2003), defined student-centred learning as a Western approach to learning that may not be suitable for developing countries. Limited resources and different learning cultures are the reasons this author mentions. Another concern is that students who have experienced more teacher-centred approaches may reject the student-centred learning. This happens due to fright and unawareness (O'Neill & McMahon, 2004).

We can conclude that the value of student-centred learning is "placing learners at the heart of the learning process and meeting their needs, is taken to a progressive step in which learner-centred approaches mean that persons are able to learn what is relevant for them in ways that are appropriate. Waste in human and educational resources is reduced as it suggested learners no longer have to learn what they already know or can do, nor what they are interested in" (Edwards, 2001, p.37).

5.2. Active learning

.Active learning

The term student-centred learning is viewed by some authors as similar to “active learning”. What is active learning?

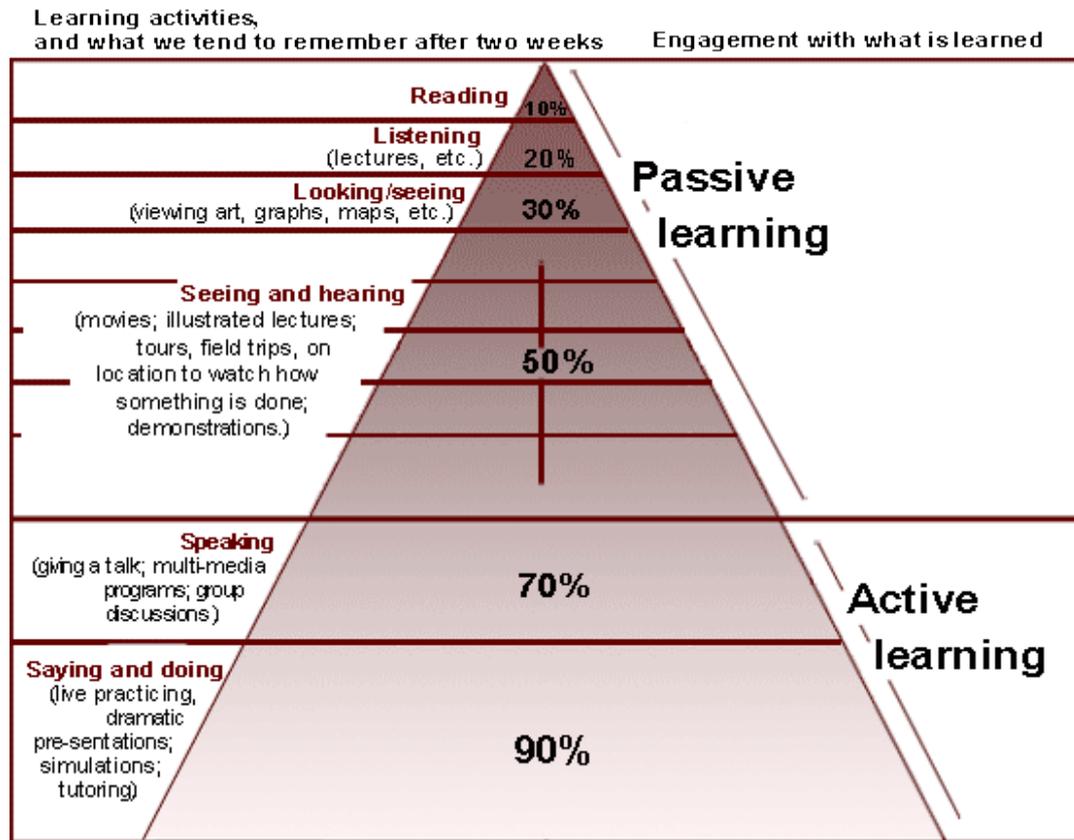
For some people this concept is redundant since it is impossible to learn anything passively (University of Minnesota, 2008). Many experts assert that all learning is inherently active. Therefore, students are actively involved while listening to formal lectures in the classroom (Bonwell & Eison, 1991). However, literature about education suggests that students should do more than just listen. That is: they must read, write, discuss, and be engaged in solving problems (Chickering & Gamson, 1987). To be actively involved, students must be engaged in higher order thinking tasks (analysis, synthesis and evaluation) (Bonwell & Eison, 1991). The activities should involve the student in doing things and thinking what he/she is doing (Bonwell & Eison, 1991).

Active learning is “an approach to instruction in which students engage the material they study through reading, writing, talking, listening and reflecting” (University of Minnesota, *What is active learning?*, 2008). This method is the opposite of traditional educational models. In those situations, students were passively in the classroom, absorbing the knowledge transmitted by an expert (University of Minnesota, 2008). Allen and Tanner (2005) define active learning as seeking new information, organizing it in a way that is meaningful, and having the opportunity to explain it to others. This type of instruction focuses on interactions with peers and instructors. Besides, it involves a cycle of activity and feedback in which students are given the opportunity to apply their learning in the classroom (Armbuster, Patel, Johnson & Weiss, 2009). Placing students at the center of instruction and shifting the focus from teaching to learning is very important. It contributes to a better learning environment. It would be a manageable atmosphere for the metacognitive development that students need to become independent and critical thinkers (Bransford et al., 2000).

Several studies have shown that active-learning instructional approaches can lead to improve student’s attitudes (Marbach-Ad et al., 2001; Prince, 2004; Preszler et

al.; 2007). They also show an increase in learning outcomes (Ebert-May et al., 1997; Hake, 1998; Udovic et al., 2002; Knight & Wood, 2005; Freeman et al., 2007) relative to a standard lecture plan (Armbuster, Patel, Johnson & Weiss, 2009).

In the graphic below, we can observe how learning tasks can contribute both to active and passive learning.



“Cone of learning”, adapted from Edgar Dale (1946)

Integrating content and language learning is very challenging. To be successful, good resources are needed and good task design is essential (Marenzi, Kupetz, Nejd & Zerr, 2010). CLIL teachers cannot simply transmit the content. CLIL requires to revise the methodology to ensure that students understand the content (Marenzi, Kupetz, Nejd & Zerr, 2010). It implies that teachers have to think of other ways (group work, tasks) which actively involve the students. It will provide them with useful feedback.

Educational resources and materials have to focus undoubtedly on the role that language plays in the students' assimilation of concepts (Marenzi, Kupetz, Nejd & Zerr, 2010). Subject-specific materials (maps, graphs or pictures) can be more authentic than foreign language textbooks. Through CLIL, language is presented in real-life contexts. It implies that the natural use of language can foster the students' motivation towards learning languages (Marenzi, Kupetz, Nejd & Zerr, 2010). A CLIL classroom offers an explorative learning environment. Discovery learning and project work are much easier to happen into such a learning atmosphere than in a conventional language classroom (Marenzi, Kupetz, Nejd & Zerr, 2010).

5.3. Cooperative learning

We can define this type of student-centred approach, as follows:

- The instructional use of small groups. This makes students work together and maximize their own and each other's learning (Johnson & Johnson, 1993).
- Tenets and techniques for helping students work together more effectively (Jacobs, Power & Loh, 2002).

Cooperative learning involves more than just asking students to work together. The focus is on making the students have the best successful experience possible (Jacobs, 2006).

General education supports cooperative learning. In addition, it is very used in second language (also known as "L2") instruction (Jacobs, 2004). There are some theoretical considerations about the use of cooperative learning in L2 teaching (Jacobs, 2004):

.The Input Hypothesis. We acquire language when we understand input that we read or hear. When the input is far away from our L2 proficiency level, it is not comprehensible. Input from groupmates is supposed to be more likely to be understandable. The reason is that group members' language levels may be more or less equal. In addition, Krashen and Terrell (1983, p. 97) add: "our experience is that interlanguage (intermediate forms of the L2) does a great deal more than a good harm, as long as it not the only input the students are exposed to".

.The Interaction Hypothesis. This presumption (Hatch, 1978b & Long, 1981) accentuates the role of social interaction in increasing the amount of intelligible input that students receive. Interaction means that students can ask for help when they do not understand input. The collaborative setting in groups also helps them to solve comprehension failures.

.The Output Hypothesis. Swain (1985), states that learners also need to speak and write, that is, produce output in the L2. Cooperative learning offers students lots of opportunities for output. In fact, when working in groups, students' output can increase noticeably.

.Sociocultural Theory. L2 learners work out learning in accordance with context and experiences with others (Lantolf, 2000). Newman and Holtzman (1993, p. 77) explain: “Vygotsky’s [the most influential SCT scholar] strategy was essentially a cooperative learning strategy. He created heterogeneous groups of ... children (he called them a collective), providing them not only with the opportunity but the need for cooperation and joint activity by giving them tasks that were beyond the developmental level of some, if not all, of them”.

.Individual differences. Learners differ many ways (Robinson, 2002). One of the differences is that some of them prefer to learn in social settings. Nonetheless, all learners should know how to succeed in such settings. Cooperative learning offers them the opportunity to develop the skills needed to work with others (Jacobs, 2004).

.Learner autonomy. It has risen to prominence (Wenden, 1991). Autonomy means that students have a role in planning, controlling, and evaluating their own learning. Doing group activities students are less dependent on teachers (Jacobs, 2004).

If we want to implement cooperative learning in the classroom, we should follow these principles (Jacobs, 2004):

1. Heterogeneous grouping. Create mixed groups taking into account different variables: sex, ethnicity, social class, religion, age, language proficiency, personality and diligence.

2. Collaborative skills. We should teach the students the abilities they will need to work in groups. Sometimes they do not have them, they do not know the language involved, or they do not know how to apply them.

3. Group autonomy. Students should resort to themselves for solutions, rather than to the teacher. In some occasions, teachers want to intervene when they observe difficulties in the groups. Teachers must trust peer interaction to do many of the things they have felt responsible for themselves (Johnson, 1997).

4. Simultaneous interaction. As students are divided in different small groups, the opportunities they have to produce L2 output are higher. In traditional teaching, usually, only one person speaks at a time, the teacher (Kagan, 1994).

5. Equal participation. It is important to provide students with ways to participate in their groups. Otherwise, one or two members will dominate the group (Kagan, 1994).

6. Individual accountability. One of the aims of this approach is that students share their learning with their classmates.

7. Positive interdependence. This tenet lies at the heart of cooperative learning. It will be positive if learners feel that what helps one member of the group, helps the rest. If the “all for one, one for all” feeling arises, this the proof that the group is sharing a common goal.

8. Cooperation as a value. Cooperation is not only a way of learning, but something to be learnt. It is a consequence of the positive interdependence. Students should internalize that feeling and expand it beyond the school.

5.4. CLIL: teaching resources and planning

CLIL is a very important approach, as it is beneficial for both content and language. Despite its potential, there are still limitations on methodological resources and guidance to plan and teach (Meyer, 2010). The 4Cs-Frameworks (Coyle 1999, 2006) is a good source. It offers a theoretical and methodological base for planning CLIL lessons and constructing materials. It consists on the following principles (Meyer, 2010):

- **Content:** acquiring knowledge and skills is not the only important thing. Learners should create their own understanding and knowledge, as well as develop skills.
- **Cognition:** students should create their own interpretation of content.
- **Communication:** language should have to do with the content. It needs to be transparent and accessible.
- **Culture:** the relationship between cultures and languages is fundamental to CLIL.

Using the CLIL approach is not a synonym of successful teaching and learning. An added value of CLIL takes place when teachers embrace a new paradigm of teaching and learning. Therefore, a good guidance of how to create materials and plan lessons is needed (Meyer, 2010).

.The input

The materials used should be meaningful, challenging and authentic. A meaningful and challenging input is basic for foreign language acquisition. Authenticity refers to the connexion with the daily lives of our learners and their areas of interest (Meyer, 2010). Motivation also has its effect on learning (Dörnyei, 2006). Another key concept when selecting materials is the “multi-modal output” (Leisen, 2005). It is useful to present subject matters visually (maps, diagrams, pictures, photographs, etc.). It promotes visual literacy and enables a deeper understanding. Changing the information from one mode (a text) into another (visual literacy), and from the

mother tongue (also known as “L1”) into L2, requires different learners’ skills (Meyer, 2010).

.Scaffolding learning

Students need scaffolding to help them deal with different language input. The quantity and intensity of scaffolding can be reduced as their language skills get higher (Meyer, 2010).

CLIL teachers depend on authentic materials due to the lack of good educational ones already created. The authentic matters are not made to accomplish the needs of foreign language learners. Thus, scaffolding is needed (Meyer, 2010).

We should focus on what students can understand and help them express themselves accurately. Giving them reasons to be proud of their progress is also important. An integral part of every CLIL lesson should also be teaching students learning skills and strategies. To facilitate skill learning, instructional activities should “set up contexts in which these skills can be displayed, monitored, and appropriate feedback given to the shape of their acquisition” (Lyster, 2007, p.149). As a consequence, learners will promote language and get higher order and critical thinking skills (Meyer, 2010).

.Rich interaction and pushed output

Interaction “connects input, internal learner capacities, particularly selective attention, and output in productive ways” (Long, 1996, p. 451-2). Modified output benefits L2 development because “learners need to be pushed to make use of their resources; they need to have their linguistic abilities stretched to their fullest, they need to reflect on their output and consider ways of modifying it to enhance comprehensibility, appropriateness and accuracy” (Swain, 1993, p.160).

According to the Task-Based Language Teaching (TBLT), authentic communication will occur when there are some communication gaps that need to be bridged by the learners (Meyer, 2010).

Teachers can create authentic communicative situations by providing such gaps and asking students to fill them through cooperative interaction. Task-repetition also allows to promote communicative skills (Bygate, 2001). “Languaging” is defined as “the process of making meaning and shaping knowledge and experience through language” (Swain, 2006: 89). If we give students pre-planning time, accuracy and complexity is likely to increase. In contrast, reduced planning time results in more fluency but less accuracy and complexity (Ellis, 2003).

.The cultural dimension

People’s motivation to cooperate significantly increases when we know better each other (Grimalda, 2006). Therefore, students need to learn about other countries.

The goal is to prepare our students to succeed in a globalized world. Consequently, intercultural communicative competence (Camerer, 2007) needs to be the final educational aim, and the heart of our teaching. CLIL contributes to this proposal because cultural codes and appropriate linguistic and non-linguistic strategies are taken into consideration (Meyer, 2010).

.Thinking skills

An effective CLIL teaching methodology means:

- Creating environments in which learners are engaged, challenged, and provided with different sorts of thinking, without being overwhelmed (Zwiers, 2006).
- Teaching students how to express their thoughts in an progressively more complex manner. “Every learning involves language learning or is language learning at the same time and (that) communication, therefore is of overriding importance also in subject learning” (Vollmer, 2008, p. 273).

.Sustainable learning

We should make sure that what we teach is taught in a way that new knowledge becomes deeply rooted in our learners' long-term memory (Meyer, 2010). In CLIL, sustainable instruction and learning is very important. Teachers have to facilitate both the learning of the specific content and the learning of the L2. What is more, they have to make sure that the students can talk about the topics in both L1 and L2 (Meyer, 2010).

Sustainable learning can be achieved if teachers (Meyer, 2010):

- Create connections with students' attitude, knowledge and experience
- Make the learning process transparent, providing clear structuring
- Make sure that results of group work are shared with everybody in the class
- Promote self learning and introduce portfolio work
- Adopt a translanguaging approach
- Focus on collocations and chunks rather than on isolated words and word lists
- Promote spiral learning and focus on learning and study skills

.Planning CLIL units and materials

In addition to all the principles mentioned before, these are the steps to follow in order to create a successful CLIL workout (Meyer, 2010):

- Select the content
- Provide the students with different types of input regarding the diverse learning styles and language skills
 - Take into account the scaffolding and study skills needed
 - Design tasks that trigger both higher order thinking skills and lead to authentic communication
- Think of the kind of output we ask the students for

As we have seen, the 4Cs-Framework offers the pedagogical and methodological essence for truly sustainable CLIL teaching and learning.

6. Research design

6.1. Introduction

As seen in the previous chapter, CLIL is a dual focus approach in which motivation is very important. One way to promote enthusiasm among the students is applying cooperative learning techniques. Peer work, original activities and students' high level of participation, are supposed to be the best teaching option.

The theoretical facts mentioned along this essay are based in the evidence that the literature show us. Nevertheless, it is always a good decision to experience that personally. This is the reason for this research project.

We have been working with two groups of Year 4, which students are between eight and nine years old. The research procedure began with an initial test (from now onward, pre-test), prior to the learning unit that was taught to them. In this test they had to describe in English a photograph (see appendix 1) in a given time, two minutes. After the unit, they repeated the same test (from now onward, post-test). This will be explained in detail in the following sections of the essay.

The completion of the unit took seven lessons, the last one for the exam. In group A, we used a traditional teacher-centred methodology while in group B, a student-centred active methodology, CLIL, was used. At the end of the unit and after the exam (see appendix 5), they were also given a questionnaire to know their feelings about the work they had done with us.

Finally, with all the results of the observation, the marks of the tests and exams, and the answers of the questionnaire, we were able to draw some conclusions from this investigation.

6.2. Aims and goals

The main aim of this research plan was to know if a student-centred motivational approach like CLIL is more effective to improve students' satisfaction and to achieve better academic results than a teacher-centred methodology.

Would students' satisfaction increase or decrease after experiencing a student-centred approach? The best way to answer this question was comparing two different groups of students. In one of them the CLIL methodology was applied, whereas in the other one it was not.

We wanted to know if CLIL would produce positive effects on the students. The tests, exams and questionnaires were designed to have quantitative and qualitative results that could give us objectives answers.

In the following sections, more characteristics of the research design and procedure will be explained in detail.

6.3. Working hypothesis

Two different working schemes had been used. In group A, students were taught in a teacher-centred way. The teacher was the person that carried out almost everything that happened in the class. Students only answered when they were asked and they did oral repetition activities and the exercises of their books. Learners did all the tasks individually. Collaborative work only happened once.

In group B, a student-centred approach was used, as it should be when teaching CLIL. Although theoretical explanations were part of the lessons, students' activity was always the most important part.

All the lessons started the same way, with a revision of the previous lesson and a theoretical explanation of the new one. The difference between the groups was on the type of revision used and the sort of explanation given.

These were the working hypotheses:

- The control group will not enhance their marks in the post-test.
- The experimental group will enhance their marks in the post-test.
- The control group will get better results in the exam than the experimental group.
- The experimental group will be more satisfied with the lessons than the control group.

These hypotheses were based in the literature reviewed in previous chapters that showed that a student-centred motivational approach would make students understand and acquire better knowledge. As a consequence, they would enhance their English communicative skills. In addition, they would enjoy the lessons.

6.4. Subjects

The research was carried out with two groups of students of Year 4. These students were between eight and nine years old.

The developmental characteristics (*Lawrence University*, Appleton, Wisconsin) of the children that are these ages will be explained to get a further knowledge about what we can expect from them in the classroom:

.Physical development:

- Fascinated about games
- Experiencing improvement in both gross and fine motor skills
- Possess a high activity level
- Practice to master variations of movement for physical activities
- Enjoy games that allow for comparison of skills
- Enjoy games that allow for self-improvement

.Social-emotional development:

- Have a strong determination towards independence
- Develop a determined sense of loyalty to friends
- Need to belong to a group
- Play with and are friends with same-sex peers
- Like to take on responsibility
- Live in a world of games, rituals and humour with other children
- Like to have a best friend
- Have a firm sense of right and wrong
- Need help accepting equals who are different or left out a group

.Cognitive development:

- Like to talk, they use the language to express feelings and tell stories
- Developing a sense of time
- Enjoy collecting things

- Enjoy problem-solving games
- Can plan and carry out projects with adult support
- Becoming more self-directed in activities
- Better able to understand and value differences of opinion

These students had been involved in the bilingual project three courses.

Therefore, it was not a new methodology for most of them. We were told by their teacher that their general level of English was quite good. They were able to follow a lesson fully taught in English. They were able to understand the explanations and instructions given. They also knew a lot of vocabulary. On the other hand, they were less capable to write and talk in English. Although they had to improve their output, they could make easy simple sentences to express their feelings and opinions.

The relationship among them (in both groups) was pretty good, they got along with everybody. Their behaviour in the class was fine although sometimes they talk with each other. The spatial organization of the classroom was positive for a CLIL procedure. They were seated in pairs, so they knew what working with someone was. However, they were not used to work in groups, even in small groups of students.

We did not apply the tests to all the students in the control group, nor in the experimental group. Therefore, their marks in the exams and their answers in the questionnaires were not analysed. Advised by their teacher, who knew them better, we did not take into account those students who have not worked within the bilingual project in the previous years of school. The same happened with students that needed to interrupt their Science lessons in order to be taught by a specialist teacher because of their lower level in other subjects. The last case that was not include in the investigation was of a student that had already come from China; she has not learn Spanish, nor English yet.

In the control group, there were twenty two students that were part of the investigation. Eighteen of them were nine years old at the time they did their first test, whereas four of them were still eight years old. When they did their final test, twenty of them were nine years old and only two of them were eight years old. Besides, only two students of this group go to English lessons out of the school.

In the experimental group, there were nineteen students that were part of the research. There were fifteen students that were nine years old, and four of them were still eight years old, although their birthdays were in the next week in three of the cases. By the time they did the final test, eighteen students were nine years old and only one student was still eight years old. In addition, only three of the students go to English lessons out of the school.

6.5. Design

The first thing to do was to decide in which group we were going to teach in a teacher-centred way and, in which one a student-centred methodology was going to be used. Advised by the students' teacher, we thought that the best thing to do was to teach the experimental group using a CLIL methodology as this was a quiet group. In addition, their lessons were always before the break. We did not have to worry about finishing the activities to be able to tidy everything up before moving to the next group. Therefore, the control group was taught in a teacher-centred way. Their lessons took place right before the ones of the experimental group.

The next step was to design the pre-test. We needed to check their previous knowledge of the language to be able to know if it had been enhanced or not after teaching them.

The oral test was designed to check their communicative skills. They had to describe a photograph using English (see appendix 1). The photograph was about a family having lunch in a park. We wrote several items that two teachers of the school were going to use to assess each student. The items (see appendix 3) were designed to check students' skills on oral comprehension, vocabulary, grammar and speaking.

Each student was given two minutes to describe the image. It was the same time for all of them. Before they came into the classroom, they were told they would only be there little time. They were not told the exactly amount of time to avoid anxiety.

I did not assess the students. The best option for a better environment was that the students were evaluated by the English teachers. They know them, so they would not feel nervous about that while doing the test. My function was to explain the children what they were going to do before coming in, and to knock the door of the classroom to communicate that the time had finished.

The test procedure consisted on several steps. The first thing to do was to call out the students in pairs. They came with me to another classroom in which they did the test. Before coming into the classroom, they were shown the photograph. They were also told what the test was about and the teachers that were going to be with

them. In addition, they were explained that it was not an exam so they did not have to be worried.

To assess the children it was necessary that both teachers were available. This was difficult because of their timetables. Therefore, as there were many students, it took us three lessons to assess all of them.

Once the initial test was finished, the next step was to begin teaching the unit to both groups. The unit was about food, nutrition and the digestive system. It took us seven lessons; the last one was for the exam (see appendix 5). We will now explain how each group was taught (see appendix 7 for experimental group's activities).

▪ *Lesson 1: introduction of the unit, "a healthy, balanced diet"*

.Objectives:

- To learn what a healthy, balanced diet is
- To understand why a healthy, balanced diet is important to one's health

.Contents:

-Subject contents: the importance of a healthy, balanced diet; understanding the connection between diet and health

-Key vocabulary: amount, diet, fat, nutrient, weight; lose, put on; balanced, healthy, overweight, underweight

Grammar structures: "we need to eat/drink...", "we shouldn't eat...", "this is healthy/unhealthy", "this is balanced/unbalanced",

.Control group

We started showing them a photograph about two persons preparing a salad. They had to observe the image and answer my questions. Then, they were introduced to the first topic of the unit. After that, they had to say names of food. When the blackboard was full of names written, they were asked to tell us which food was healthy. Afterwards, we introduced them the theory. I was the only person talking and they did only participate raising their hands to ask doubts.

The next step was the activities. In the first exercise they practiced their oral skills. They had to listen to the information of the CD and repeat it each time we stopped it. Then, they did the exercise of the activity book in which they had to apply all the information given in that lesson.

After checking the exercise, we revised all the theory with them.

.Experimental group

First, we explained them the concepts of “healthy” and “balanced” food and the importance of a good diet for our health. Then, we all talked and give examples about these types of food. They were asked about the food they usually eat and we also made them analyse if it was healthy and balanced or not.

Afterwards, in groups of four, they had to design a healthy, balanced menu for the dining room of the school or a fast-food menu.

Finally, each group showed their work to the rest of the class, and we all talked about it.

▪ Lesson 2: “nutrients”

.Objectives:

- To learn about the nutrients contained in different foods
- To discover what our bodies get from different nutrients
- To discuss the appropriate amounts of certain nutrients

.Contents:

-Subject contents: the food wheel, the nutrients our body needs

-Key vocabulary: bread, butter, calcium, carbohydrates, cheese, egg, fats, food wheel, fruit, minerals, nutrient, oils, pasta, proteins, rice, vegetable, vitamin, yoghurt

-Grammar structures: “which food group is it?”, “this is the group of...”, “What nutrients does it have?”, “It has...”, “... give us energy”, “... help us grow”, “... keep us healthy”, “... contains...”

.Control group

We started by revising the contents of the previous lesson. They were asked questions and examples to check that they had understood that information.

The next step was to introduce the new topic. A poster of the food wheel and flashcards of food were used to give them visual support. I was the only person speaking and they only participated to solve their doubts.

Before doing the exercise in their activity book, we talked about the poster they had been shown before.

.Experimental group

The first step was to introduce them the theoretical explanation of the food wheel using the poster as visual support.

After revising all the contents, in groups of four, they had to create their own poster of the food wheel. They had to stick the pictures of food they were given on the right group of nutrients.

Finally, each group showed their poster to the rest, talking about the foods in each group of nutrients.

▪ *Lesson 3: "healthy, balanced meals"*

.Objectives:

-To learn that healthy, balanced meals are important

-To recognize what foods healthy meals include

.Contents:

-Subject contents: healthy, balanced meals

-Key vocabulary: balanced, meal, egg, fish, fruit, meat, salad, toast; meals: breakfast, lunch, snack, dinner; starter, main course, dessert; healthy; days of the week

-Grammar structures: “Is this a healthy, balanced meal?”, “this is healthy and balanced” / “This is unhealthy and unbalanced”

.Control group

To start the lesson, we revised the information of the previous topic. Then, they were introduced the theoretical explanation about the meals. We talked about the dining room of their school to give them different examples of healthy meals.

Afterwards, we played the CD. They had to listen to the information and then, repeat it every time we stopped it. It was the only time they orally participated. I was the only person talking when explaining the theme.

Finally, they did their corresponding exercise in the activity book.

.Experimental group

First of all, the lesson began with the theoretical explanation using the poster of the food wheel and the flashcards as visual support.

Then, each student was given an example of a menu they could eat at the dining room of the school. The aim was for them to translate the menu into English, and to analyse and realize that it was healthy and balanced. We did it as an oral activity in which all the class participated.

The next step was to describe and analyse a photograph. They worked in groups of four (the image was about a family having lunch). The purpose of this activity was to make them talk and discuss in English among them. After that, each group told the rest of the class their description and thoughts about the photograph.

Finally, they were asked to do a project as homework. They had to create a whole healthy and balanced menu for one day as if they were cooks of a restaurant. They had to do it in a original and creative style. The time for them to do it was two weeks.

▪ *Lesson 4: "our mouth"*

.Objectives:

- To learn the different parts of the mouth
- To understand the importance of cleaning one's teeth

.Contents:

- Subject contents: the parts of the mouth
- Grammar structures: "In the mouth we have...", "Chocolate/sweets/... are bad for our teeth"
- Key vocabulary: calcium, enamel, gums, teeth, tongue; chew, cut, decay, taste

.Control group

As in the previous lessons, we started by revising the contents learnt before. Then, they did an activity about communicative skills. The aim was for them to practice with an exercise quite similar to the one they had done in the test. They worked in groups of four. They were given a photograph about the same topic they had seen in the initial test. They had to think about what they could see in the image to give a description. After thinking and talking in groups for about five minutes, we asked each group to tell me something about the picture. To finish with the activity, we all talked about it in turns to give extra information.

Then, they were introduced the new topic of the lesson. After the explanation, they had to do the exercise in their activity book.

At the end of the class they were asked to do some homework. They had to write a healthy menu for one day. It should include five meals and a proper distribution of the different nutrients. They were given them two weeks to do it.

.Experimental group

First of all, they were given the theoretical explanation with the visual support of the posters and flashcards.

After that, in groups of four, they had to design a mouth with its main parts, using plasticine.

At the end, each group showed their plasticine-mouth to the rest of the class and explained which the main parts of it are.

▪ *Lesson 5: "The digestive system"*

.Objectives:

- To learn the parts of the digestive system
- To recognize the stages in the process of digestion

.Contents:

- Subject contents: the parts of the digestive system, the process of digestion
- Grammar structures: "In the digestive system we have...", "the first/second/... step of the digestion is..."
- Key vocabulary: anus, mouth, oesophagus, stomach, large intestine, small intestine; digestion, gastric juices, saliva, teeth, tongue; break down, chew, cut

.Control group

The lesson began with a revision of the previous one. Then, they were introduced the new topic. Some visual support (flashcards, drawings...) was used to make them understand better the explanation. After that, they did two exercises in their activity books.

.Experimental group

*In this case, this activity that we had designed could not be accomplished due to a strike and sport activities outside the school that happened twice in the same day of the week that we had this lesson. In addition, the fact that they need a theoretical explanation first, and that they should do the activities in the book, did not leave time to anymore tasks. The unit should be finished in a given time prior to the exam, so there was no possibility to realize this activity which could have taken them about half an hour at least.

Nevertheless, we would like to explain what was the scheme to follow in that lesson:

First, they were given the theoretical explanation using the poster as the main visual support. After that, we would have asked them to work in groups of four and, using plasticine, wools and other materials, create a digestive system poster.

Finally, they would have been asked to show the poster to the rest of the class to describe the parts of the digestive system

▪ *Lesson 6: revision of the unit*

.Control group

During this lesson, we revised all the information of the unit step by step. To make sure they had understood it, we asked them questions. In addition, they also asked us doubts. That were the only opportunities they had to participate.

At the end of the lesson, we collected the homework they had been asked to do two weeks ago.

.Experimental group

This lesson was designed to revise all the topics mentioned in the unit. We did it through oral conversation, sharing experiences about the activities done and, giving their opinions and expressing their feelings.

▪ *Lesson 7: exam and questionnaire*

.Control group and experimental group

The lesson was the same for both groups. They did the exam and, when everyone had finished, they were given the questionnaires.

To do the exam, we moved some desks and chairs so they all sited individually. They were given the instructions of each exercise and, after they had finished asking us doubts about the procedure, they started. We gave them all the time they needed.

After collecting the exams, they were given them the questionnaires (see appendix 6). We explained everything in Spanish and they ask us the things that were not clear for them. Then, they filled the questionnaires and we collected them at the end of the lesson.

6.6. Assessment procedure

A research project always needs an assessment. We should use different instruments to obtain information and know if there is an answer for the questions that made us start the investigation.

Therefore, the assessment procedure was very important to know if there were answers to our initial questions and if the aims have been reached. Besides, it would also be helpful to know if the research should be modified or enhanced for a future implementation.

In this case, the assessment procedure consisted on the initial and final tests, the exams and the questionnaires. We got both quantitative and qualitative results that helped us to have an objective view of the research.

In the pre-test and the post-test, which were the same, we thought of seven different items to evaluate the students (see appendix 3):

- The student can start speaking about the picture on his/her own
- The student speaks fluently
- The student has a good pronunciation
- The student uses a good intonation
- The student can use simple grammar structures like the present simple
- The student understands the question or questions asked
- The student can use more than two words of a group of vocabulary

These items were assessed in a scale between zero and ten. Each of the two teachers who evaluated the students had an individual paper in which they marked the children. They did not compare or even see the marks of the other. Consequently, we got two marks for each item for every student. The teachers also had a paper in which we had written different questions (see appendix 2) for cases in which the students were not able to start speaking about the picture themselves. There were two different groups of questions. The first group were closed questions, easy for them to answer. The second group of questions were used when even the first group of them did not work. There were questions with different possibilities to answer. They did only had to choose one of the options given.

Moreover, to have a broader view of the research, the marks of their exams were used to compare the different approaches used with each group. We chose the exercises of the exam. They were the topics that we had seen in the lessons. There were four different exercises. There was an exercise which was not obligatory. It was more difficult so they were told to do it at the end of the exam. It was a possibility for them to improve their marks. For us, it was a helpful information to know if the students were able to do more complicated exercises.

Finally, we got both quantitative and qualitative results from the questionnaires (see appendixes 6 and 7) they answered. The instructions and every question were written in Spanish to make sure that they all understand what they had to do. They were anonymous so they could answer sincerely to every question:

- a) Did you like the unit? How was it?
- b) Have you learnt new things?
- c) Have you understood the explanations?
- d) Did you like the way the teacher has explained the unit? How was she?
- e) Have you enjoyed the activities done during the lessons? How were they?
- f) Which mark would you give to the teacher?
- g) Observations: here you can write whatever you want in relation with the lessons

Questions from a) to f) were answered giving a punctuation between zero and ten. In addition, questions a), d) and e) had a second part in which students had to choose a word that best suited the answer. The words given were: “boring”, “interesting”, “funny”, “entertaining” and “a bore”. Finally, in part g) students had the chance to write their opinion or anything related to the lessons. It was an open question in which they could express their thoughts and feelings (see appendix 7).

6.7. Results and analysis

In this chapter, all the results of the information we got from the students will be introduced. In addition, we will analyse them to get a better understanding of their meaning.

The results we got were the outcome of:

I. A pre-test which consisted on a speaking test to evaluate their communicative skills prior to the unit. A post-test which was a speaking test as the previous one but at the end of the unit taught by me.

II. An exam they did at the end of the unit (see appendix 5).

III. A questionnaire to know their level of satisfaction about the lessons, the methodology, the teacher and her teaching style. It was done the same of the exam, that is, at the end of the unit (see appendixes 6 and 7).

In cases I) and II), we got quantitative marks (between 0 and 10), as a result of the evaluation of the following items:

- A. the ability to start speaking about the picture on their own
- B. fluency
- C. pronunciation
- D. intonation
- E. use of simple grammar structures
- F. understanding of the questions asked
- G. use of more than two words of a group of vocabulary

We will explain how we managed to get all the statistical information shown in this chapter.

All the gathered data was analysed through the statistical computer programme IBM SPSS, version 19. In order to do it, the answers of all the subjects that participated in the study (N=42) formed an unique group of analysis (global results of the sample). Afterwards, the results were also analysed considering the type of treatment applied to the subjects (Control and Experimental) to see if there were any differences depending on this circumstance (variable). A descriptive statistic analysis of all the

variables was requested to check it. The “pre-test” and “post-test” tables show the means and standard deviations obtained.

The Kolgomorov-Smirnov test was applied to value the normality of all the variables, getting as a result values of Sig. < 0.5 in all the variables of the questionnaire used to know their valuation of the experience. This datum showed us that the normality criteria was not accomplished in its distribution. Therefore, in the subsequent analysis, no parametric tests were applied to these variables. In contrast, with the rest of variables, parametric tests were applied.

Consequently, the means obtained from the different groups in the speaking and the exam were analysed through a “T of Student” test for related samples. We got significant statistic differences in the variables E and G only in the experimental group.

On the other hand, the U test of Mann-Whitney of independent samples was requested for the questionnaire of students’ satisfaction with the lessons. The aim was to compare the valuations that the subjects of the two groups (control and experimental) gave. Significant differences were not found between the estimations of the groups.

I. Speaking pre-test and post-test

In the following table, the information related to cases I) and II) is shown.

Table 1. Mean (M) and Standard Deviations (SD) of the Speaking Test.

Items	Control Group		Experimental Group	
	Pre-Test	Post-Test	Pre-Test	Post-Test
	M (SD)	M (SD)	M (SD)	M (SD)
Ability to speak about the picture on their own	6,90 (1,59)	7,09 (1,35)	6,42 (1,47)	6,52 (2,15)
Fluency	6,88 (1,65)	7,00 (1,67)	6,07 (1,93)	6,42 (2,26)
Pronunciation	7,65 (1,25)	7,47 (1,30)	6,86 (1,39)	7,02 (1,86)
Intonation	7,20 (1,37)	7,31 (1,49)	6,36 (1,37)	6,81 (1,98)
Use of simple grammar structures	6,34 (1,72)	6,18 (1,84)	4,92 (1,89)	5,92* (2,31)
Understanding of questions	8,36 (1,49)	8,45 (1,38)	7,60 (1,63)	7,73 (1,66)
Use of more than two words	8,25 (1,47)	8,84 (1,39)	6,86 (1,58)	7,76* (1,83)

* $p < .05$ Pre-post-test within groups

. Control group

In this group we had twenty-two students. We calculated the means and the standard deviations of each item mentioned before. Consequently, we got statistical information that helped us to a better analysis of the facts.

If we have a look at items C and E, we can observe that students got lower marks in the post-test. There was not a huge difference if we compare these results with the ones in the pre-test. However, we might find an explanation if we pay attention to

the methodology used with that group. They did not participate too much during the lessons, therefore, the chances to enhance pronunciation and to be able to use grammar structures, were not common.

The most noticeable disparity takes place in item G (“use of more than two words of a group of vocabulary”). The unit taught was about food and nutrition. In the tests they had to describe an image about a family having lunch. Therefore, we can explain that increase as the result of students applying their knowledge about the unit while doing the post-test.

In the rest of items, there is not a huge difference between the pre-test and the post-test. It was not a significant increase.

.Experimental group

In this group we had nineteen students. The procedure to get the results from the pre-test and the post-test was the same as in the control group. Table 1 shows the means and standard deviation of the marks in each item.

In this group we could observe that students had increased their marks in all the items. The active, participative, original and motivational methodology used with these children during the unit seemed to have produced a positive effect on their marks.

The lowest increase took place in items A (0.11 points), F (0.13 points) and C (0.16). The ability to start speaking about the picture, the understanding of the questions and the pronunciation were better in the post-test, but not as much as the other items assessed.

On the other hand, the highest increase took place in items E (1 point) and G (0.89 points). The active methodology used with the group promoted a participative attitude of the students. Consequently, it is understandable that they had experienced a deeper progress in the use of grammar structures and the knowledge of more vocabulary.

.Control group vs. Experimental group

I would like to compare the results in the pre-test and the post-test of the control group and the experimental group.

First of all, we could notice that the marks in all the items of the pre-test are higher in the control group than in the experimental group. Therefore, any progress in the experimental group will be an important fact to take into account.

In the control group, there was a decrease of the average mark in two items. Whereas in the experimental group, there were no decreases in any of the items. In addition, in the experimental group the differences between the post-test and the pre-test were always higher than in the control group, except in item A.

It was not only that the experimental group had always experienced an increase in every item. In addition, even the lowest increase was higher than in the control group. Consequently, we could say that the CLIL methodology used with the experimental group made a positive effect on these students. However, the children in the control group, who were taught in a teacher-centred style, did not improve their communicative levels as much as their mates in the experimental group.

II. Exams

We got quantitative results from their exams. The average mark and the standard deviation were calculated to get statistical results. Table 2 shows all the results obtained.

Table 2. Mean (M) and Standard Deviation (SD) of the Written Exam

Exam	Mean	SD
Control group	6.94	1.42
Experimental group	6.86	2.09

If we compare the mean mark of the control group and the experimental group, we can see that the children that were taught using a CLIL methodology, got lower marks than their mates taught in a teacher-centred way.

There were two possible explanations for this fact. First of all, in the case of the experimental group, there was a student missing the day of the exam. That student

usually gets high marks. If she had made the exam, she would have probably got a good mark which would have increased the mean of her group.

In addition, the exam evaluated students' knowledge about Science and the language, English. That is, in the tests, only communicative skills were assessed, whereas in the exam, both the language and the subject were evaluated. Therefore, it was more difficult to get higher grades in the exam than in the tests.

III. Satisfaction Questionnaire

We got both quantitative and qualitative results. All the questions, except the last one, were marked with a punctuation between 0 and 10. In addition, some of the questions had also a qualitative answer to choose. Besides, there was an opened-question in which the students could express their thoughts and feelings about anything related to the lessons. Both the quantitative (Table 3) and qualitative (Table 4) results obtained from the questionnaire helped us know their level of satisfaction with the lessons.

Table 3. Mean (M) and Standard Deviation (SD) of the Satisfaction Questionnaire

Items	Control Group		Experimental Group	
	M	SD	M	SD
Like the unit	7.50	2.15	8.58	1.86
Learn new things	8.31	2.38	8.32	1.94
Understood explanations	8.18	2.06	7.63	2.03
Like teaching style	9.32	1.25	9.58	1.17
Enjoyed activities	8.27	2.31	8.63	1.86
Assess teacher	9.45	.80	9.68	.82

Table 4 shows the qualitative results of the Satisfaction Questionnaire in both groups: control and experimental.

Table 4. Qualitative results of the Satisfaction Questionnaire

Answers	Unit		Teaching style		Activities	
	Control Group	Experi. Group	Control Group	Experi. Group	Control Group	Experi. Group
Boring	0%	5.3%	0%	5.3%	4.5%	0%
Interesting	45.5%	63.2%	27.3%	15.8%	13.6%	26.3%
Funny	22.7%	10.5%	54.5%	57.9%	45.5%	38.8%
Entertaining	22.7%	21.1%	18.2%	21.1%	36.4%	31.6%
Annoying	9.1%	0%	0%	0%	0%	5.3%

.Control group

In general, there was a high level of satisfaction in all the items asked. The one which got the lowest mark is the appreciation of the unit. In contrast, the items that got higher marks were about the teaching style used and the assessment of the teacher. The type of methodology used with this group was not the ideal one to make students feel attracted by the unit.

Analysing the results, most of the students thought that the unit was interesting, funny or entertaining; whereas only a few thought that it was annoying. No one thought about it as boring.

Paying attention to the teaching style and the teacher, more than a half valued that item as funny. Some of them thought it was interesting and entertaining. No one thought it was boring nor annoying.

Most of the students thought that the activities were funny and entertaining. A few of the children thought they were interesting and boring, whereas no one thought they were annoying.

Considering the terms “boring” and “annoying” as negative, we can observe that these concepts took place when students thought of the unit itself and the activities they had done. It was comprehensible that did not like them as a teacher-centred methodology was used. They seem to be quite satisfied with the way the work of the teacher. The methodology used did not promote students’ active participation. However, this fact could had been positive in the sense that having to pay more attention to the teacher could had made them appreciate better her skills and abilities. That might explain this affirmative result.

Finally, we analysed the last question. As it was an open-ended question, not all the students gave an answer. Fourteen of the twenty two students wrote something in the questionnaire, that was the 63.64% of them. There were different answers about the lessons. The objective was to find adjectives and expressions that could give us an idea about students’ thoughts and opinions. As we read the answers, we divided them into two groups: their feelings about the lessons and their feelings about the teacher and her teaching style.

The positive result of their answers was that they thought that the explanations of the teacher were good and, in addition, some of them thought she was funny. In contrast, the negative view of one of the students is that he/she thought that the teacher told them off a bit, and he/she did not like that.

The use of a teacher-centred style may have had an influence on them. They might had paid more attention to the work and behaviour of the teacher. They might not had enjoyed the lessons as much as their mates of the experimental group, but they had more opportunities to evaluate and think about the teacher’s work with them.

Analysing the results, most of the opinions about the lessons were positive: they find them funny and they had enjoyed them. Although they were not repetitive answers, the opinion about the lessons been complicated, boring or “really annoying” took place in this group.

In general, we can also see that most of those opinions were about the lessons. Here are some extracts of their answers that give evidence about the results seen above:

“The lessons were interesting, the teacher explains good and she is funny and very likeable” (David).

“The lessons were really annoying although I liked the teacher” (María).

“She told us off a bit during the lessons” (Luis).

.Experimental group

In general, there was a high level of satisfaction with the lessons. The best thoughts were about the teacher, the teaching style used and the activities. We could explain that as a consequence of using the CLIL methodology in a student-centred way. The most negative opinion was about the understanding of the explanations. We could find an explanation considering that a teacher-centred methodology was not used and that, most of the time was dedicated to increase their level of participation through activities. Therefore, little time was used to explain concepts. It was not that they were not given all the information needed, but that some of it was discovered by themselves while doing the activities. Consequently, they were not explained the contents like they are used to and, that might had confused them. That could be the explanation for this low grade.

Analysing the results, more than a half of the students thought that the unit was interesting. Some of them thought it was entertaining and funny. A few thought it was boring and, no one valued it as annoying.

More than a half of the students evaluated the teacher and her teaching style as funny. Some more students thought it was entertaining and interesting. On the other hand, a few of them considered it as boring, whereas nobody thought it was annoying.

Almost all the students thought that the activities were funny, entertaining and interesting. A few of them considered the activities as annoying and no one thought they were boring.

In general, we can say that many of the students had judged the unit, the teacher, her teaching style and the activities as something positive. They had used adjectives like “funny”, “entertaining” and “interesting”. The fact that the students had been the main focus of every lesson could be the explanation for that affirmative evaluation of these items. They had enjoyed a different methodology if we compare it to the type they had been used to. The results of their answers give us the impression that this is how they would like the lessons to be.

On the other hand, there were also some negative considerations. A few of them had valued the unit, the teacher and her teaching style as boring. This could be due to the fact that we did not manage to fulfil their expectations. It could also be related to the fact that this was a new methodology for them. Maybe they did not had time to get used to these changes. In addition, a few of the students thought that the activities were annoying. They were designed to be creative, cooperative and original. Sometimes, as it may had happened in this case, it is difficult for the students to work in groups when this is something unusual for them.

Finally, we analysed the last question. As it was an opened-question, not all the students gave an answer. Twelve of the eighteen students who fulfil the questionnaire wrote something about this, that was the 66.7% of them. All the answers were related to the lessons or the teacher.

Analyzing their answers, we could see that all the opinions given about the teacher are positive. What they valued the most is the teacher’s personality and her teaching style.

In this case, we only had one type of view about the lessons. All the students that gave their opinion about this topic, thought that the lessons were funny. The only “negative” point was in fact something positive. One student had enjoyed the type of activities done during the lessons, so he/she would like to have more games like the ones played.

In general, all the opinions given in this group about the teacher and the lessons were positive. Therefore, we can see that they like that teaching style, because no one

thought about these topics as something negative. Here are some extracts of their answers that give evidence about the results commented above:

“I enjoyed very much having you as a teacher” (Daniel).

“I enjoyed the lessons a lot, I would like to repeat the experience” (Lucía).

“The lessons were funny, I had a great time” (Gonzalo).

“You are very patient with us, you are an excellent teacher” (Marta).

.Control group vs. Experimental group

The next step was to compare the results from the control group with the ones got from the experimental group.

In the control group their level of satisfaction with the unit, the teacher, her teaching style and the activities was not bad considering the teacher-centred methodology used. However, it was lower than in the experimental group, in which they valued all these items as positive.

In addition, if we pay attention to the last question, where they gave their fully opinion, there were differences between the two groups. In the control group, the amount of positive opinions was almost the same as the amount of negative ones. Whereas, in the experimental group, all the feelings expressed were positive.

Consequently, we could affirm that the students who were taught using a CLIL active and participative methodology were more satisfied than the ones taught using a teacher-centred style. Besides, both groups were used to be taught in that teacher-centred style in almost all the subjects along their academic lifes. Therefore, it was even more positive to see that they were pleased with the new methodology used. They were not only considering it as good, but comparing it with the teaching style they had been used to.

Finally, we would like to say that no gender significant differences were found in the variables analysed.

7. Conclusions

The information obtained and analysed in the previous chapter allow us to establish some conclusions. I will introduce the resolutions in relation with the different instruments used.

▪ Speaking pre-test and post-test:

The methodology used in the experimental group seemed to produce a positive significant effect on students' results in items E and G. In general, they had increased their marks in all the items. The control group did not increase all their marks. The progression in the experimental group was better than in the control group.

▪ Exam:

Although the control group obtained slightly better marks, there were not significant differences between that group and the experimental group. The absence of a brilliant student in the experimental group the day of the exam and the fact that, in this case, both the subject and the language were evaluated, may explain these results.

As seen previously in the theoretical framework, active learning approaches show an increase in learning outcomes relative to a standard lecture scheme. That was not the case in our exams, but it did happen in items E and G of the speaking post-test that the experimental group did.

▪ Questionnaire

The quantitative and qualitative answers that the students gave us, demonstrated that the students involved in the experimental group were more satisfied with the lessons than the ones from the control group.

The analysis of the different results helped to know if the hypotheses thought were correct or not. Nevertheless, it is very important to bear in mind that this was just a experience that can help teachers to know if the CLIL effects are as we have been told. It means that we cannot extend the outcomes of this investigation as something that would always happen when using CLIL. However, it may give us a clue to know if we are doing well or if we need to enhance our teaching strategies.

What is more, this research has also helped me apply my knowledge and teaching skills. Although this was not the main goal of the investigation, I have enhanced my abilities as a teacher, and I have also got better knowledge about CLIL and motivation.

8. Limitations

The research was designed carefully to make it suitable for the aims of this investigation. Nevertheless, there are always aspects that we cannot control. The different difficulties will be explained in detail in this chapter.

Most of the limitations happened when the students completed the tests. Children were explained the type of test they were going to do. They also saw the image before coming into the assessment site. Besides, they already knew the teachers that were going to assess them and, we told them that the test was going to last little time. However, they felt nervous about the test. We could observe that. They were moving a lot. Some of them were really quiet and others were constantly asking questions about the test while waiting for their turn to go into the classroom. Despite being explained that this was not the aim, they wanted to know if they were going to be assessed. When asked if they were nervous, they answered that they were. In addition, some of them said that even without being asked.

Timing was another limitation. We had to finish the project in a given time. Therefore, to be able to assess all the students, we had to do it in just two weeks. It was a problem as the two teachers that had to mark the children were only available at the same time once or twice a week. There were many students and little time to assess them. As a result, we had to establish a time of two minutes for all of them to do the tests. We would have liked to give them about three minutes time but, it was not possible.

Students' resources were another limitation during the implementation of the learning unit used in the research project. They only had their activity book, but not the student's book. They needed to do all the exercises of their book as it was the only source of information they could take home to study. As a consequence, we could not do a lot of different and original activities, that were prepared, with the experimental group (group B).

Students' age was another problem. This sort of research project could had been better developed with older students. The most appropriate procedure to evaluate learners in a investigation is to use Assessment Scales. This kind of validated

assessment instruments are usually designed for older students. Therefore, a new procedure to evaluate children had to be designed.

Finally, I was a new teacher for the students, and this research project was part of my teacher training. Students met me when the whole project started. Therefore, the investigation was carried out at the same time I was getting to know learners' academic and personal characteristics. I did not have the possibility to start to know the children beforehand.

9. Future perspectives

The design of the research project, the way it was carried out, the information obtained and the limitations, allow us to think of possible changes/ways for the future.

Regarding the topics that have been investigated, we can think of more issues that are worthy to be inquired. That is the case of the items assessed. The main goal of the research plan was to analyse the evolution of students' communicative skills. Due to the temporal circumstances explained in the previous chapter, there were some obstacles. In the future, a deeper research plan could be developed. It would be better to give the students more time to do the speaking tests. Besides, a longer period of intervention may result in more noticeable changes in learners' skills evolution. What is more, it would be interesting to complete the study with the examination of other communicative skills: reading and writing.

The age of the students should also be taken into account. The older they are, the better we can work with them and obtain more suitable information. This is the case of the evaluation procedure. The validated assessment scales used in this sort of investigations are designed for older children. Consequently, in the future it would be useful to develop a research project with older learners.

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Appendixes

1. Pre-test and post-test image:



2. Supportive questions

First step: we ask the student to describe the picture

Second step: if he/she needs support, we can use the following questions to start the conversation:

- Where are they?
- What do they do?
- How many people are there in the picture?
- Could you describe a person in the picture?
- What's the weather like?
- What season do you think it is?
- What kind of food can you see?
- The food you can see in the picture, is it healthy or not?
- What do they drink?
- How many boys are there in the picture?
- Could you tell me the members of the family that you can see?
- Look at the mother, could you describe her?
- Are there any trees or plants in the picture?
- What is the girl wearing?
- What do you think it is inside the box?

Third step: if the student needs even more support, we will use the following questions:

- Where are they? Are they at home, in the beach, in the park...?
- What do they do? Are they playing, are they in class...?
- How many people are there in the picture? One, two, three...?
- Look at the father, has he got short hair or long hair? Has he got black hair or fair hair?
- What's the weather like? Is it sunny, raining, snowing...?
- What season do you think it is? It is winter, or summer...?
- What kind of food can you see in the picture? Is it fish, meat, fruit...?
- The food you can see in the picture, is it healthy or not? Do we need to eat fruit everyday?
- What do they drink? Is it milk, coffee, water...?
- How many boys are there in the picture? One, two, three...?
- Could you tell me the members of the family that you can see? Is there a father, or a mother? Can you see a baby in the picture?
- Look at the mother, could you describe her? Has she got long hair or short hair? Has she got black eyes or blue eyes?
- Are there any trees or plants in the picture? What colour are they? Red, white, green...?
- What is the girl wearing? Is she wearing a dress or trousers? What colour is her T-shirt?
- What do you think it is inside the box? Could you find food or toys inside?

3. Evaluation items

Communicative skills

A) The student can start speaking about the picture on his/her own	1	2	3	4	5	6	7	8	9	10
B) The student speaks fluently	1	2	3	4	5	6	7	8	9	10
C) The student has a good pronunciation	1	2	3	4	5	6	7	8	9	10
D) The student uses a good intonation	1	2	3	4	5	6	7	8	9	10
E) The student can use simple grammar structures like the present simple	1	2	3	4	5	6	7	8	9	10
F) The student understands the question or questions asked	1	2	3	4	5	6	7	8	9	10
G) The student can use more than two words of a group of vocabulary	1	2	3	4	5	6	7	8	9	10

4. Activities made with the experimental group

Healthy restaurant

panes	postos
orange	cereals
banana	apple juice
grapes	salad
apple	orange juice
peach	cheese
chicken	water
milk	soup
fish	
horm	
tomato	
patata	

Example of a healthy menu

Unhealthy restaurant

hamburger

pizza

coffee

sausages

chitos

chicken

snack

Tomato Ketchup

Example of an unhealthy menu

Food wheel

Food wheel

School's menu

MIÉRCOLES	
Tallarines al pomodoro	
Filete de merluza con verduras	
Yogur natural	
Pan	
KCAL	814.53
PROTEINAS	44.25
LIPIDOS	22.08
H. CARBONO	113.18
FIBRA	4.61
CALCIO	582.3
NIERRO	12.45

MIÉRCOLES	
Crema de calabacin	
Lomo adobado al horno	
Fruta del tiempo	
Pan	
KCAL	837.93
PROTEINAS	23.82
LIPIDOS	24.47
H. CARBONO	98.72
FIBRA	12.93
CALCIO	626.26

Supportive image for conversation

Mouths made with plasticine

Mouth made with plasticine

5. Exam

2 Food and nutrition

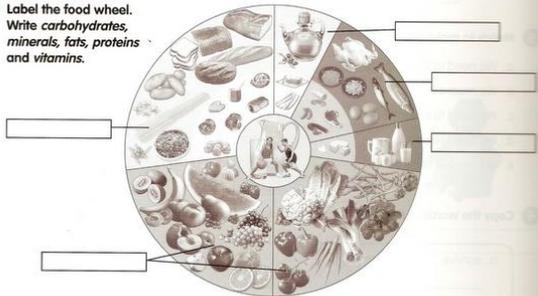
Name _____ Date _____

1 Use the colour key and circle the words. Then, underline the foods we should eat less often.

give us energy → red help us grow → blue keep us healthy → green

sardines yoghurt grapes eggs rice olive oil pasta bacon
milk carrots bread butter strawberries lettuce cheese

2 Label the food wheel.
Write *carbohydrates, minerals, fats, proteins* and *vitamins*.



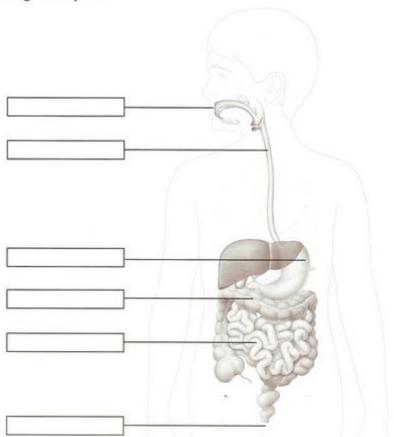
3 Use the food wheel to complete the table with healthy, balanced meals.

breakfast	lunch	mid-afternoon snack	dinner
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

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4 Label the diagram of the digestive system.

large intestine
stomach
mouth
anus
oesophagus
small intestine



5 How does digestion work? Match the sentence halves and put them in order from 1 to 6.

<input type="checkbox"/> Parts of food our body does not need	the oesophagus to the stomach.
<input type="checkbox"/> Food mixes with gastric juices,	into the blood in the small intestine.
<input type="checkbox"/> Solid waste from food	continue into the large intestine.
<input type="checkbox"/> Teeth cut and chew food,	which break down the food.
<input type="checkbox"/> Food travels down	and the tongue mixes it with saliva.
<input type="checkbox"/> Nutrients from food are absorbed	leaves our body through the anus.

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6. Questionnaire

Cuestionario

En este cuestionario tendrás que valorar todas las preguntas con una nota entre 0 y 10. Además, en algunas de ellas, también deberás rodear la palabra que mejor responda a la pregunta. Por último, en el apartado de observaciones, podrás dar tu opinión sobre cualquier cosa que tenga que ver con estas clases.

1. ¿Te ha gustado el tema?

0 1 2 3 4 5 6 7 8 9 10

¿Cómo ha sido?

aburrido interesante divertido entretenido pesado

2. ¿Has aprendido cosas nuevas?

0 1 2 3 4 5 6 7 8 9 10

3. ¿Has entendido las explicaciones?

0 1 2 3 4 5 6 7 8 9 10

4. ¿Te ha gustado cómo ha explicado la profesora?

0 1 2 3 4 5 6 7 8 9 10

¿Cómo ha sido?

aburrida interesante divertida entretenida pesada

5. ¿Te han gustado las actividades que habéis hecho en clase?

0 1 2 3 4 5 6 7 8 9 10

¿Cómo han sido?

aburridas interesantes divertidas entretenidas pesadas

6. ¿Qué nota pondrías a la profesora?

0 1 2 3 4 5 6 7 8 9 10

7. Observaciones: aquí puedes hacer cualquier comentario sobre las clases

7. Transcriptions of the questionnaire: question 7

.4º A:

-“The lessons have been very funny at the beginning, then, they have been more complicated and, at the end, they have been a bit annoying because is when we have to study more”.

-“The lessons have been funny but I have liked ones more than others”.

-“ The lessons are interesting, the teachers explain well what we have to do in the book and in the exams. Inés has been funny and very likeable”.

-“I liked it because the lessons were funny”.

-“They have been funny and interesting. I liked it a lot”.

-“I liked how María Jesús has explained all the nit. She is very funny and likeable, and she is a very good Science teacher”.

-“The lessons have been very annoying but I would give María Jesús 11 points”.

-“They are very entertaining and we learn a lot of things”.

-“You have been a very good teacher”.

-“I liked them a lot”.

-“I did not understand some things, but then I did”.

-“I liked them a lot. Thank you very much teachers”.

-“The teacher has been great explaining the new unit”.

-“The teacher tell us off a bit”.

.4º B:

-“I have really enjoyed having you as a teacher”.

-“The teacher has done it well, all the class understood everything. You explain very well”.

-“For me, the lessons have been long and interesting”.

-“I liked a lot and I would like to repeat it again”.

-“The lessons have been funny and I had a good time”.

-“You are very funny and cheerful”.

-“The lessons were funny”.

-“ I liked the lessons a lot”.

-“I would like that she could be a teacher. Besides, she is very patient with children. She has been an excellent teacher”.

-“They have been very funny”.

-“The teacher is very good”.

-“If you could explain in English and then in Spanish, it would be better. If you could make more games, not many, it would be better. If you did not tell us off so much, it would be more interesting”.