Fostering sixth graders Metacognitive Learning Strategies through Content and Language

Integrated Learning lessons

Research submitted to aim for the degree of Master in Education

with emphasis in Foreign Language Didactics

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Universidad Libre de Colombia

Master in education with emphasis on English didactics

Bogotá, D.C.

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Abstract

Metacognition is an important aspect in the learning process that allows learners to recognize their strengths and weaknesses as well as organize their learning process for facing different learning challenges. The researchers faced the students` foreign language difficulties at the beginning of secondary level in a public school in Bogota; by fostering the use of metacognitive learning strategies along with the implementation of a set of lessons in the frame of Content and Language Integrated Learning and including the backward design as a class methodology.

The researchers used the principles of Thematic Analysis to examine the different data gathered from several instruments such as students' artifacts including a chart adapted from Chamot (1999), which was used for planning and evaluating students' learnings, a task planner, a survey as well as researchers` field notes. The results revealed a progressive advance in the learners` use of metacognitive strategies, when relating new topics to previous knowledge and planning their learning goals. It was also evident that learners required more emphasis on the self-assessment process. This project also suggests a novel way to foster metacognition by articulating the Content and Language Integrated Learning to the backward design; the first which is a well-known approach, based on the use of subject content for language learning purposes whilst the target language is used for subject content learning; the second as an innovative planning framework in which teachers or designers are guided to establish and integrate precise learning objectives. Likewise, with the backward design the learners are challenged to use the new learnings in useful and meaningful contexts,

*Keywords***:** Metacognitive strategies, previous knowledge, awareness, meaningful contexts.

	FORMAT	
	ANALYTIC STRUCTURED ABSTRACT - RAE	
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Study Title	Fostering sixth graders metacognitive learning strategies through CLIL lessons	
Authors	Dora Elena Correal Villamil - Julio Ernesto Martin Coy	
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DESCRIPTION

In the public educational context, it is a common situation for teachers in secondary to start the English learning process with students who evidence difficulties in all the language skills. Thus, it becomes a challenge for secondary teachers to face this situation by searching for options and strategies that allow to overpass those difficulties and motivate learners in foreign language learning. In today's pedagogy, the learning to learn competence has received more relevance on the foreign language learning, as it aims to acquire certain metacognitive skills or capabilities that allow the students to know and to regulate their own learning processes. Thus, through the development of this competence; learners might not only improve their language skills, but also could be involved in their process in more autonomous form. This is why, the researchers considered necessary to propose new pedagogical actions during classes in order to engage students in the knowledge and use of metacognitive strategies that could involve them in planning, monitoring and evaluating their own learning process. Moreover, metacognitive strategies development could become an essential tool in order to enhance the language skills, which is the main objective in foreign language teaching. Therefore, this study regards on the planning of a set of activities for sixth graders based on Biology content in the framework of CLIL, on the purpose of allowing students to recognize the metacognitive strategies and how they could help them to improve in the foreign language learning process.

SOURCES

Authors based on 33 references to write the document titled "Fostering sixth graders metacognitive learning strategies through CLIL lessons". Now we present the whole list of references.

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CONTENT

This study is composed by five main sections.
1. Chapter one, describes the state of art, the legal framework and the theoretical framework with the two main constructs.
2. Chapter two, the methodological design, explains the type of study, the context in which it was developed, the participants, and the data collection instruments and the procedures.
3. Chapter three: deals with the instructional design for the implementation process.
4. Chapter four, describes data analysis method and its findings.
5. Finally this study reports shows the conclusions, pedagogical implications and further research.

METHODOLOGY

This study was carried out under of the principles qualitative paradigm and it was also framed within the features of the action research model. The researchers took into account Kemmis and McTaggart´s spiral because this model permitted us to do a reflective process. We planned three

interventions based on La Floresta Sur School science program and the instruments for data collection were designed based on the metacognitive principles from Oxford`s theory. The first intervention topic was *digestive system and nutrition.* The second, *food classification,* and the last one, *circulatory system***,** were planned for three weeks. All the interventions were designed under the framework of the backward design with scaffolding activities tending to transfer learnings into a final task. Thus, students performed their learning activities and tasks while the researchers observed the Oxford's metacognitive strategies usage, based on students' answers in the designed instruments and the researchers` notes about their attitudes and behavior in relation to their metacognitive process. The data analytical process was conducted under the features and phases of Thematic analysis, based on Braun and Clerk (2006).

CONCLUSIONS

At the end of the study when the three interventions were applied and based on the collected data, we reached to the next conclusions.

- The metacognitive learning strategies presented a progressive development, being the most used: overviewing and linking with known material, paying attention, finding out about language learning and setting goals within the two first major metacognitive learning strategies. The weakest strategy corresponded to the third one, evaluating your learning.

- Along the three interventions the researchers found that CLIL content was favorable for fostering the metacognitive strategies; as Biology content became more significative by the participants to recall previous knowledge and to establish learning goals and strategies.

- The backward design permitted to transfer the learnings into authentic situations, which generated a high level in learners`expectancies for preparing the task performances whereas it allowed the researchers to integrate the different learning goals and the activities in an organized way.

Elaboration Date	September 7th 2016

Introduction

The process of learning English is slow and progressive and it could be interpreted as a series of challenges to face. This process consists of the development of certain skills. According to the Common European Framework, these are divided into productive and receptive. Receptive skills comprise reading and listening. They are important because they allow learners to understand contents, textbooks, works or documents. Productive skills are related to speaking and writing and they are significant because they permit learners to perform in communicative aspects such as oral presentations, written studies and reports among others.

In spite of the efforts teachers accomplish to reach goals in every skill, it is evident that difficulties in this sense appear to be frequent in our public schools. In the particular context of La Floresta Sur School (LFSS), the researchers identified **a problem** with the learners of sixth grade. They presented different difficulties in their English performances in all the skills, at the moment of starting secondary. Regarding this situation, the researchers considered necessary to assess the students' language level; in order to contrast it to the standard established by government for learners at this stage. Thus, an English diagnostic test in the four skills was applied at end of elementary process, based on some of the National English standards.

The collected data showed that a high percentage of students did not reach the minimum standard in both comprehension (reading and listening) and production (writing, monologue and conversation) skills. The test registered low results in all skills as follows: in listening

comprehension 93% of the students did not reach the standard for this skill. For reading comprehension 75% of students could not achieve the standard. In the case of writing and speaking, none of the students reached the standard. The results evidenced the learners` difficulties in the foreign language learning process. This fact has become a challenge for teachers in secondary level who are in the necessity of providing learners better tools to improve the English learning process.

Furthermore, after applying the test, some information was gathered from students in an open interview. Questions were designed in order to know students' impressions when facing the English diagnostic test. In relation to the test experience, most of the students manifested to have felt worriedness and hesitation, as they did not have the ability to answer the questions or did not know the basic vocabulary to communicate their ideas.

Based on students` insights, it was interesting to notice how they could make reflections_about their language learning process and even the necessities they had. Moreover, some of them also tended to propose some actions they could be given in order to improve their learnings.

This previous information was taken into account by the researchers, who decided to apply the Oxford`s Strategy Inventory for Language Learning (SILL) version 5.1. This survey according to Oxford, (1989), "was designed to gathering information in order to assess about how foreign language students go about learning that language. The results of this survey could help learners to know themselves and allow teachers to clarify the possibility of helping students to learn more efficiently". (p.279). Therefore, the survey was applied to the participants group, in order to know students' use of metacognitive learning strategies.

Based on the results, the researchers highlight the fact that when the students were asked about the searching for opportunities to be a better language learner; by recognizing their errors as an opportunity to improve or evaluating the progress they have obtained in language learning; most of the students selected the options "I never do it" (1) or "I generally do not do it" (2). Conversely, for the questions related to organizing their physical atmosphere for learning, having notebooks for note taking and preparing activities based on previous knowledge; the answers obtained the highest rank, "I almost always do it"(4).

The previous analysis of the SILL survey, showed that students did not center their learning, plan their objectives or evaluate their learning process. However, many students manifested to have the habit of organizing their place of work and to have the necessary materials to study. Concluding, it was possible to say that learners tended to focus more attention on arranging physical spaces than on planning methodological actions.

Based on the learners` reflections about the diagnostic test on one side, where they evidenced certain awareness level in relation to their learning process by manifesting some possible causes for their difficulties, necessities for improving and even proposals about teaching contents; and on the other, the results obtained in the SILL survey, that showed us that students had developed some learning strategies; we as researchers considered it was necessary to implement a series of Content and Language Integrated Learning (CLIL) lessons with the purpose of fostering the knowledge and use of metacognitive learning strategies, in order to promote learners` awareness about their own learning process.

Therefore, CLIL was selected as it has the possibility to engage students in the content topic, owing to the knowledge they have previously acquired along their personal experiences or during their academic subject learning in L1. This fact could lead students to develop more self-confidence to take part in the CLIL tasks during the class sessions.

After having explained the problem situation, **the scientific question** which emerges for this research is: To what extent can metacognitive language learning strategies be fostered during the implementation of CLIL lessons with sixth graders at La Floresta Sur School?

In consequence, **the object of study** of this research is language learning strategies, which students should use in order to be better learners; and its **field of action** is metacognitive language learning strategies; which could be evidenced by the implementation of CLIL lessons.

Guided by the target of the scientific question, the researchers have established as **the main objective** of this study: To foster the use of metacognitive language learning strategies in CLIL lessons with sixth graders. To reach the stated main objective it is required to establish the following **specific objectives**:

1. To characterize the use of metacognitive learning strategies in sixth graders at La Floresta Sur school in the framework of CLIL lessons.

2. To identify the advantages of using CLIL as a way to foster the use of metacognitive learning strategies in sixth graders at La Floresta Sur school.

3. To establish the contribution of the backward design framework for guiding the metacognitive learning strategies use.

In the same sense **the scientific tasks** which will be developed along the research are:

1. Constructing a theoretical and methodological framework for leading metacognitive language learning strategies within the framework of CLIL.

2. Identifying the current state of sixth graders` metacognitive strategies at La Floresta Sur School.

3. Designing a set of lessons within the framework of backward design in CLIL to be applied in the studied group.

Justification

In the public educational context, it is a common situation for teachers in secondary to start the English learning process with students who evidence difficulties in all the language skills generated by the lack of basic vocabulary, as it was already mentioned when stating the problem. Thus, it becomes a challenge for secondary teachers to face this situation by searching for options and strategies that allow to overpass those difficulties and motivate learners in foreign language learning.

For young learners, the beginning of secondary level is not easy; however, at the moment of answering the post-test survey, they evidenced certain level of awareness in relation to their

learning process. This is why we considered necessary to propose new pedagogical actions during classes in order to engage students in the knowledge and use of metacognitive strategies that could involve them in planning, monitoring and evaluating their own learning process. In this early stage, developing more autonomous and active learners.

Furthermore, in today's pedagogy, the learning to learn competence has received more relevance on the foreign language learning, as it aims to acquire certain metacognitive skills or capabilities that allow the students to know and to regulate their own learning processes. Thus, through the development of this competence; learners might not only improve their language skills, but also could be involved in their process in more autonomous form.

The researchers have considered that by the implementation of innovative methodologies and taking advantages of students` context and previous knowledge in L1, learners could be motivated to link language learning to this background information. At the same time, researchers consider important to foster in students, the use of metacognitive strategies along the different stages established by theorists specifically Oxford (1990).

It is the purpose of this study to provide sixth graders involved in this project at La Floresta Sur School, with some elements necessary to become active participants of their own learning by developing awareness of being autonomous; as metacognition is an unexplored field in the school context and it could become a starting point in the sense of generating self-guidance in the students´ English learning process.

Additionally, teachers should be in the search of other methodological alternatives to their traditional practices, which could generate the possibility of helping students and themselves to face the challenges that new societies are demanding. In this sense, CLIL offers the possibility of engaging students in a more significant methodology that considers previous knowledge and experiential learning based on school covered topics or even in their life experiences.

Moreover, metacognitive strategies development could become an essential tool in order to enhance the language skills, which is the main objective in foreign language teaching. Thus, this study regards on the planning of a set of activities for sixth graders based on Biology content on the purpose of allowing students to recognize the metacognitive strategies and how they could help them to improve in the foreign language learning.

Considering the results obtained in the present study, this project could become an opportunity to extend the process in the subsequent years. In the same way, it is a possibility for being followed by other language teachers who might keep in mind the benefits and strengths of developing metacognitive learning strategies in different levels of the English teaching process.

Chapter I

1. Literature review

1.1 Previous studies.

The issue about how to use metacognitive strategies has become prominent in the recent times. Therefore, many studies have been conducted and have showed successful results in this field. That is why, one of the first stages done by the teachers-researchers was to look for some previous research performed on this field, which supported and contributed to this study. The researchers inquired various experiences in which Metacognitive Learning Strategies (MLS) were the central point of research. These studies were performed in different academic circles, international, national and local.

The first experience brought into this study is titled *"Young learners' metacognitive knowledge of listening comprehension and pedagogical recommendations for the teaching of listening"* It was carried out at the National Institute of Education-NTU, Singapore in 2014 by the researcher Kiren Kaur. The study was conducted over a period of six weeks with a group of 12 young language learners aged 10 to 11 from a government funded elementary school where English was the medium of instruction.

The study was aimed to investigate the types of metacognitive knowledge the young learners evidenced. The researcher used introspections gathered in listening diaries from this group of young learners to reveal their metacognitive knowledge based on the three crucial areas, namely, person, task and strategic knowledge.

In this study the young learners were found to have very little person knowledge, suggesting that these young learners were not aware of themselves as listeners. Likewise, the strategy knowledge was also limited to the listening applied tasks, it was basically rich in answering techniques aimed at getting the correct answers to questions asked. By contrary, the learners had quite an extensive amount of task knowledge on listening tasks they were exposed to. The absence of varied forms of metacognitive knowledge could suggest a possible lack of explicit teaching of listening processes and person, task and strategy factors. In summary, the results from this study revealed that the learners were aware of their metacognitive knowledge but this was mostly in the specific listening tasks given during the inquiry.

The findings of that study support this research, due to the fact that the young learners became aware of their metacognitive knowledge in listening skill as it was the basis of that research. It means that metacognitive elements could be fostered by exposing learners into specific tasks that aim to the development of specifics metacognitive aspects.

A second experience was found in Monteria, Colombia, where the teacher Itala Diaz developed an important investigation at La Universidad de Córdoba in 2015. This study examined the effects of metacognitive strategies to help beginning young learners with difficulties increasing and retaining vocabulary. Participants in the study were third, fourth, and fifth grade students whose ages ranged from 8 to 10 years old, with a total of six girls and four boys. The main objective of this study was to examine the effect of metacognitive strategies training on A1 level students to help them improve their vocabulary.

The researcher performed a set of five interventions based on the cognitive academic language learning approach instructional model. These interventions, together with journaling progress, were used to train students in the use of the metacognitive strategies planning, monitoring, and evaluating.

The implementation phase was done with the strategy training. It lasted for a period of six weeks, in which five hours were used on metacognitive strategies (MTS) training and 10 hours on the application of activities designed to allow the use of metacognitive strategies on vocabulary learning. The researcher modeled strategies for learners to understand how to use vocabulary strategies such as, associating, making sentences, using images, and so forth. After that, (MTS) were explained and detailed, covering the three components of: planning, monitoring, and evaluating, as stated by Chamot and O'Malley (1994).

The findings showed that metacognitive strategy training has positively contributed to vocabulary acquisition skills, as participants were able to raise consciousness about some learning strategies and the use of metacognitive strategies to increase their vocabulary learning.

Considering the finding of this study, it is important to notice that an adequate training on metacognitive learning strategies might derive in better performances in the language learning process. Moreover, students might be using certain metacognitive strategies during their learning tasks, which could generate positive results, but they are not conscious of their efficiency. In this sense, it is necessary to develop students` awareness about its use and the contributions that they can provide to their language learning process.

Another important study was implemented by two researchers from Sabana University, of Chía, Colombia in 2013, in two public Colombian schools. This action research study examined how the use of metacognitive strategies, through a web-quest called "The world in our hands" in which students carried out tasks, influenced vocabulary learning. Thirty students at level A1 from eighth grade participated in this study. They were trained on the use of metacognitive and vocabulary strategies by the researchers. Six interventions were implemented following both the Content and Academic Language Learning Approach (CALLA) and the Computer Assisted Language Learning (CALL) model.

The researchers followed three phases: pre-intervention, intervention and post-intervention. In the first stage, the researchers introduced students to the topic of land pollution, promoting to focus on vocabulary learning (VL) and vocabulary learning strategies (VLS). They presented students a variety of VLS such as discovery (cognates and context) and consolidation (mental images, vocabulary banks, personal dictionaries, etc.). They also drove them to identify prior word knowledge, VLS frequently used and guided them in the use of metacognitive strategies (MS) (planning, monitoring and evaluating). Likewise, they trained them in the selection of appropriate VLS to solve VL problems, and MS -planning, monitoring and evaluating- were frequently modeled by the teachers. In the second stage, the researchers required students to employ the web-quest "The world in our Hands" outside the classroom, which permitted them to recycle words and recall information in context by continuously using MS and VLS. Moreover, it gave them broader ideas about strategies effectiveness and some expertise in their use. Finally, in the last stage the

students wrote short paragraphs or sentences expressing what they have learned about the topic and expanded their initial mind maps.

Findings indicated that the use of metacognitive strategies in a CALL environment, helped students get better results in their learning process as they became aware of what practices to follow in order to learn new words effectively.

This study provided us a guidance on how the metacognitive learning strategies can be implemented through different approaches and by using different strategies, even using a variety of technological tools in order to improve students' language learning process.

1.2 Legal framework.

Since 1994, the government introduced the Ley General de Educación (1994), in which an important transformation of the educational system in Colombia was implemented. La Ley General de Educación established in its Chapter II, the article 77th, the formal school autonomy, in order to redesign curricula and adopt teaching methods within the limits set by this law and the proyecto educativo institucional (PEI). Thus, the foreign language teaching could be organized according to the specific necessities and characteristics of a context.

Likewise, El Ministerio de Educación Nacional has published another important document called Guía No. 22 (Estándares Básicos de Competencias en Lengua Extranjera) in which it is established the basic standards learners need to reach in the different levels, based on international and comparable descriptors.

> The English Standards constitute a fundamental guideline for English teachers, executives and parents to clarify about the communicative competences are expected for children to develop in Basic and Middle levels, in order to help them to achieve the planned goals in the Documento Vision Colombia 2019 (p.1).

El Ministerio de Educación adopted The Common European Framework of Reference for languages (CEFR), as the model for guiding English learning process in Colombia. The document was designed based on the levels proposed by the CEFR and adopted its levels in order to use the same nomenclature and language for international contexts. The standards are articulated with the goals for each level and described in detail what students have to know and can do to show certain domain level. These standards have served as support for the designing of the English Curriculum at Floresta Sur School, which is evidenced in the English Program.

Some elements refer not only to the teaching strategies, but refer to the learner's active participation in the learning process. Thus, the inclusion of general competences associated with knowing, knowing how to do, knowing how to be and knowing how to learn, where language users carry out tasks in social contexts. These competences, specifically the last one is linked to Learning Strategies as a basic element in developing independent learners and lifelong learners.

Another important aspect is considered in the document "Lineamientos Curriculares" where it refers to the Learning Strategies (LS). The document refers to concepts stated by Richards & Lockhart and Oxford, as specific actions or activities performed by students in order to develop certain learning processes.

LS are considered by the Public Policies as a crucial element in the purpose of guide learners to better face the language learning. The document provides a concise presentation of LS taxonomy; studied by the author Rebecca Oxford, whose theory has become a great basis for this study.

On the other hand, the Colombian Bilingualism policy, has been structured, evaluated and modified since 2004. The current Colombian English Plan has considered all the information gathered to reconstruct the objectives and establish new goals not only in the formal education system, but also involving the different productive sectors in the local economy. Anyway, the National policy considers the innovative methodologies in and out the classrooms and the adequate implementation of technological aids.

Recently, la ley 1651 (2013) has established specific goals tending to develop the foreign language skills in order to reinforce the purposes of bilingualism in Colombia. The articles 2nd (literal g) and 3rd (literal m) set up respectively: "To develop communication skills to read, understand, write, listen, speak and express themselves correctly in a foreign language", "The development of conversational skills, reading and writing at least one foreign language". Moreover, the article 8th establishes that "Gobierno Nacional will give priority to the promotion of English in official schools".

Summary, all these legal documents provided support and strength to this paper as La Floresta Sur School has the possibility of being autonomous in the searching of new strategies tending to benefit the learners to improve in their learning processes. At the same time, the National Standards

and the Common European Framework became referents that we, as researchers have considered as a starting point for the development of the project,

This project has special connection to recent theories like the ones stated in the Lineamientos Curriculares document related to Learning strategies, knowing how to do, and knowing how to learn competences, which coincide to this study in the sense of developing more independent and active learners through the fostering of metacognitive learning strategies.

1.3 Theoretical framework.

For this study to be supported, it was necessary to deep on different theories and important concepts, which are presented in this chapter as a basis of the development of the implementation proposed in the research.

Initially, some concepts of *Learning to Learn* competence are presented in the sense of providing a frame for the learning strategies theories explanation. Secondly, some considerations about metacognition are provided in order to recognize basic elements necessary to understand the metacognitive learning strategies. Thirdly, a brief summary of different metacognitive taxonomies is exposed in order to get closer to the central metacognitive taxonomy of this project which is Oxford's taxonomy. Finally, some basic concepts and considerations about CLIL are presented to provide support to the selected approach that was selected in this study to foster Oxford´s metacognitive strategies use.

1.3.1 *Learning to learn.*

In different parts of the world, especially in developed societies; a claim has been arisen for a change to happen on the way knowledge is presented to students; a significant modification on the students' role in the learning process is considered as urgent. Wirth and Perkins (2008) assure that a report from an Association of American Colleges in 1985 recommended that the central theme of any curriculum should be to teach students *how to learn.*

Taking into account that learning is a complex process, which requires conscious participation of the learner to be improved; some concepts and reflection about "learning to learn" as a basic competence in the cognition process; are presented as theoretical foundation for sustaining learning strategies in foreign language learning.

Learning to learn is established in the Common European Framework of Reference (2001), including some relevant considerations about learners.

> …not only the importance of developing autonomy in learners, but also provide them with useful tools or strategies to be aware of their learning. However, once teaching stops, further learning has to be autonomous. Autonomous learning can be promoted if 'learning to learn' is regarded as an integral part of language learning" (p.141).

Moreover, the Common European Framework of Reference (2001), states a definition of learning to learn as follows:

> The ability to pursue and persist in learning, to organize one's own learning, including through effective management of time and information, both individually and in groups. This competence includes awareness of one's learning process and needs, identifying available opportunities, and the ability to overcome obstacles in order to learn successfully... Learning to learn engages learners to build on prior learning and life experiences in order to use and apply knowledge and skills in a variety of contexts: at home,

at work, in education and training. Motivation and confidence are crucial to an individual's competence (p.8).

The European Council, highlights the importance of learning to learn as a form to improve significance in knowledge through previous experiences, for using them in a variety of new contexts.

Other authors relate learning to learn to the metacognition concept, referring to it as a meta-learning process, which consists on reflections about the way learners learn and the forms to improve it. Moreno (2006), argues that the learning to learn approach is mainly related to a more comprehensive notion of metacognition and that this term usually is defined as any knowledge or cognitive activity that takes as its object, or regulates, any aspect of any cognitive enterprise. Moreno's concept meta-learning also contains several references to what can be described as self-regulation, for example to plan and monitor the learning process.

Metacognition has a great power for descriptions and explanations of the learning process. It has been recognized in recent years by psychologists and educators, as an important aspect of the human experience, it plays a central role in successful learning, as it guides the individual throughout the process. It is often described as "thinking about thinking" (Flavell 1979) and can be successfully used to help students in learning how to learn. Furthermore, research has demonstrated that it can be taught to learners and how pupils could be foster through their use. In Chamot`s words (1999) "Students need to understand that explicit instruction in strategies can help them become

better language learners because it helps them add strategies to their repertoire of learning tools" (p. 39).

Metacognition also has an important role in building own self-confidence or self-control based on personal experiences. This way, an appropriate development of metacognitive strategies could generate a better learner, as they could develop better and more organized actions to perform their learnings in a more efficient way or they could also develop consciousness in relation to their possibilities or abilities to face any activity; obtained from successful experiences when performing learning situations.

According to Flavell (1979), metacognition comprises *metacognitive knowledge, metacognitive experiences* and *metacognitive process.* These categories are explained as follows:

Metacognitive knowledge: It refers to acquire knowledge that can be used to control cognitive process. Metacognitive knowledge consists primarily of knowledge or beliefs about what factors or variables act or interact in what ways to affect the results of cognitive tasks. For instance, some beliefs in relation to if a student is intelligent or not to learn a language and no other, if he posses the ability to learn a language, learning English is easy or difficult, if he has "good" or "poor" abilities in the different skills, etc.

All these metacognitive situations and many other, are often seen in our educative context, so it turns necessary to provide students with the metacognitive knowledge in order to develop self-confidence or at least the possibility to gain awareness in this sense.

Researchers like Oxford (1990), Wenden (1987); Flavell (1979), divide metacognitive knowledge into three categories:

- Person Knowledge: It refers to one`s thinking about his learning process
- Task Knowledge: It is related to the awareness about the task conditions
- Strategic Knowledge: It consists of awareness and proper use of learning strategies

Metacognitive experiences: Flavell (1979) states that "metacognitive experiences are any conscious cognitive or affective experiences that accompany and refer to any intellectual enterprise." (p. 908). These experiences may change one's cognitive goals and/or add to one's metacognitive knowledge base. Since metacognitive strategies are a notable feature of metacognitive experiences.

These experiences could be cognitive or affective. According to Flavell (1979), "Metacognitive experiences involve metacognitive strategies and are likely to come up in situations that stimulate a lot of careful, highly conscious thinking". (p.149).

Metacognitive process: According to Anderson (2002), it is divided into five primary components:

- Preparing and planning for learning: In this stage the learner establishes worthy and achievable goals.
- Selecting and using learning Strategies: In this step learners choose (according to their experience) the appropriate strategy to face the task.
- Monitoring strategy use: In this stage learners determine if the chosen plan is reaching or not the objectives in order to make decision on the respect.
- Orchestrating various strategies: For this step the learner needs to relate and coordinate the different strategies in use to perform a learning task.

- Evaluating strategy use and learning: In this stage learners make reflection about their actions and the effectiveness or ineffectiveness of them.

Considering all these components around metacognition, and taking into account this is the first approach to students to this theory; the researchers will consider the component *metacognition process* to be fostered and evaluated.

Moreover, metacognition is an essential aspect that is immersed in each learning process, many students have developed a natural and autonomous strategy use. However, metacognition has not received the attention it really requires along the different educational levels in La Floresta Sur School.

Regardless of this conceptualization, it is important to highlight that learning to learn as well as metacognition derive from Learning Strategies (LS), which are used in many different contexts and with different meanings depending on the circumstances.

1.3.2 *Learning strategies*.

A number of research depicts language learning strategies, they focus on how to deal with language learning more easily and more effectively and introduce a useful help for language learners. The issue of the language learning strategies has been the subject of many authors.

Methodologists and researchers interested mainly in learning strategies in connection with language learning have been interested in defining them. One of them is O´Malley (1995), who defines learning strategies as "special thoughts or behaviors that individuals use to help them comprehend, learn, or retain new information". (p. 1). Likewise, Chamot (1999), who has published remarkable research about this issue, states "learning strategies are procedures or techniques that

learners can use to facilitate a learning task". (p. 2). In his publication on learning strategies, Cohen (1998), defines learning strategies "as learning processes which are consciously selected by the learners" (p.4).

Oxford (1990), the author of crucial publications and articles concerning this issue, defines language learning strategies as "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations" (p.8). Moreover, Oxford (1990) expands her definition through features of language learning strategies, among the others she emphasizes aspects such as communicative competence, developing of learners´ self-directions and expanding of the role of teachers.

As it can be read, defining language learning strategies is not a simple matter and their definitions differ. However, they all correspond to one thing, namely to the fact that language learning strategies help learners make their language learning easier and acquire language more effectively.

Additionally, if close attention is paid to each of the concepts previously described by the authors; O`Malley`s is based on non-concrete actions directed to simply keep information in mind with any specific relation to the learner`s context or experience; on the contrary Chamot`s concept refers more to procedural actions which would require more training or practice to be developed in order to make easier to perform a specific learning activity not only to retain just information. In the case of Cohen`s concept it is important to notice that it is included an important element which is the consciousness, essential for developing a successful learning habit.

Moreover, with respect to all mentioned definitions, Oxford´s definition (1990), seems to involve all essential outputs that the learners should reach by using of appropriate language learning strategies. That it effectiveness, autonomy, joyfulness and ability to transfer learning strategies to new situations while learning a foreign language.

Finally in Oxford`s concept (1990), in addition to procedural actions and conscious habitudes; mentioned by the other authors, it is included the fact that learners perform the learning strategies with the purpose of improving effectiveness and make knowledge more transferable to personal context and experiences.

The study of language learning strategies has been widely analyzed by different authors, who developed several taxonomies. The present study refers to some of them in order to provide support to the research and the possibility to compare them. However, after a deep reading, the researchers made their decision for Oxford`s taxonomy (1990) as it establishes the clue moments in the learning process, by providing specific actions to start a learning situation, it provides specific criteria for organizing and self-monitoring the learning process, as well as determines the self-evaluation as essential in the sense of improving learning experiences. Oxford`s taxonomy also provides a complete model that works on the sense of involving the learner in its own process when connecting to the topic and planning their personal goals. Furthermore, we consider it the most complete and adequate for the present study, due to the fact that it contains a more detailed item list of strategies, being more practical to be observed and developed during class sessions.

1.3.3 *Language learning strategies classification.*

Several researchers have suggested different taxonomies for language learning strategies, as it can be seen in the next table.

Table 1. Language learning strategies evolution since 1970s.
In this chart are shown some metacognitive taxonomies since their beginning.

Language Learning Strategies Classification	Researcher(s) and year
1. Active Task Approach 2. Realization of language as a system 3. Realization of language as a means of communication and interaction 4. Management of affective demands 5. Monitoring L2 performance	**Naiman et al (1978)**

1. Strategies that directly affect learning
    ● Clarification / Verification
    ● Monitoring
    ● Memorization
    ● Guessing / inductive inferencing
    ● Deductive reasoning
    ● Practice
2. **Processes that contribute indirectly to learning**
    ● Creates opportunities for practice
    ● Production tricks
	Rubin (1981)

1. Cognitive strategies 2. Metacognitive strategies 3. Social- affective strategies	**O´Malley et al (1985)**

Direct strategies
    1. Memory strategies
    2. Cognitive strategies
    3. Compensation strategies
Indirect strategies
    1. Metacognitive strategies
    2. Affective strategies
    3. Social strategies
	Oxford (1990)

Source: Lee (2010)

One of the earliest researchers in the field, Naiman et al. (cited by O'Malley 1990), presented a classification which is divided in five primary broad categories of learning strategies. The primary

strategies were common to all good language learners whereas the secondary strategies were expressed only by some of the good learners.

Likewise, Rubin (cited by O'Malley 1990), proposed two main groups in his taxonomy, each with a number of subgroups. The first category relates to strategies that directly affect learning and it is distributed in six strategies. The second category, refers to strategies that are indirectly involved to the learning where learners create opportunities and produce tricks to improve communication.

The classification schemes in Rubin and Naiman's studies are different from each other but both of them coincide in taking as a starting point the "good language learner"; a learner who uses some strategies for specific learning situations.

Additionally, O'Malley and Chamot (1990), classify strategies into three categories: cognitive, metacognitive and social-affective. The first strategy is specified as learning steps that learners take to transform new material, for instance, inferencing, contextual guessing and relating new information to other concepts from memory. The second involve consciously directing one's own efforts into the learning task. Finally, the third category consists on interaction with another person or taking control of ones' own feelings on language learning.

However, Oxford establishes two main categories namely, Direct Strategies (the ones which involve directly the learning) and Indirect Strategies (the ones which learners use to control their own cognition). Each of these two categories is divided in three main strategies, memory, cognitive and compensation under the direct class; meta-cognitive, affective and social under the indirect class.

Oxford`s classification similarly as Rubin`s taxonomy have divided the learning strategies into two major categories: direct and indirect according to how they are involved in the target language. However, Oxford establishes a more elaborated and comprehensive classification with a close relation among them.

The study of Learning Strategies from its beginning with Rubin around 1975, until the last years has had a complementary process in which the authors try to get deeper in the usage analysis of them and based on previous research establish their new theories.

The most recent taxonomies are the ones proposed by O´Malley & Chamot and Oxford in 1990. Therefore, we have considered necessary to deepen into these theories in order to analyze and contrast both proposals in order to establish differences and similarities that could enrich the study and help us to support the pedagogical implementation.

1.3.3.1   *O`Malley and Chamot`s Taxonomy*

O'Malley and Chamot (1990) developed a taxonomy in which they identified 26 strategies divided into three categories: cognitive (specific to distinct learning activities), metacognitive (knowing about learning) and social/affective (related to attitudes, feelings or interpersonal relations on learning).

Cognitive strategies are mainly related to specific learning tasks and they involve more in working on learning material. Regardless of the socio-affective strategies have close relationship with social-mediating activity and interacting with others (Brown, 1982).

O`Malley and Chamot (1990), give special emphasis to Metacognitive Strategies stating that "students without metacognitive approaches are essentially learners without directions" (p.8). Later, O`Malley and Chamot affirmed "individuals who take a more strategic approach learn more than individuals who do not" (p.105).

In 1999, Chamot, Barnhardt, El-Dinary, and Robbins designed a Metacognitive Model, produced by collecting data from strategy use of effective foreign and second language learners selected from elementary through university level. In this model, strategies are organized in such a way that they can be manageable and helpful to students and teachers. Chamot et al. (1999) support "by using this model to guide instruction the teacher will provide students with a powerful approach that can help them through their lives" (p.11). This statement contains a cogent meaning in the sense of awareness development along learning process is essential not only to performing a task, but to becoming a better long-life learner.

1.3.3.2 *Oxford's Taxonomy.*

In the present research Oxford's taxonomy has been considered as the strategy classification to be referred on, specifically in the metacognitive strategies knowledge and use. Oxford divides language learning strategies into two main classes: *Direct and Indirect. Direct strategies* are straightly connected with the target language, which means that they cover mental processing of the language. *Indirect strategies* deal with handling of language learning such as planning and organizing time for learning, evaluating learners´ progress as well as regulating emotions or learning with other people. They are not directly connected with the target language.

These two categories are further subdivided into six groups which complement and support one another, as it can be seen in the following table.

Table 2. Oxford`s language learning strategies classification
This chart shows the complete taxonomy established by Oxford

DIRECT STRATEGIES	
1. Memory strategies	- Creating mental linkages - Applying images and sounds - Reviewing well - Employing action
2. Cognitive strategies	- Practicing - Receiving and sending messages - Analyzing and reasoning - Creating structure for input and output
3. Compensation strategies	- Guessing intelligently - Overcoming limitations in speaking and writing
INDIRECT STRATEGIES	
1. Metacognitive strategies	- Centering your learning - Arranging and planning your learning - Evaluating your learning
2. Affective strategies	- Lowering your anxiety - Encouraging yourself - Taking your emotional temperature
3. Social strategies	- Asking questions - Cooperating with others - Empathizing with others

Source Oxford (1990).

In Oxford's schema, *Cognitive strategies* are the mental strategies learners use to make sense of their learning. *Memory strategies* are those used for storage of information, and *Compensation strategies* help learners to overcome knowledge gaps to continue the communication, all of them are classified under the *Direct strategies category*. On the other hand, *Indirect strategies category* include *Metacognitive strategies*, which help learners to regulate their learning, *Affective strategies*

that concern about the learner's emotional requirements such as confidence, while *Social strategies* guide learners to increase interaction with the target language.

1.3.3.3 *Comparing Oxford`s and O`Malley`s strategies systems.*

Initially, we could say that the cognitive strategies stated by O`Malley and Chamot (1990), mostly correspond to a combination of Oxford`s memory and cognitive strategies. Thus, one difference between the two systems is the separation of memory strategies from cognitive strategies in Oxford`s which possibly have their own procedures or techniques that differ from other cognitive strategies. Whereas, in O`Malley`s memory strategies are included in cognitive strategies, perhaps because they serve to the same purpose.

Table 3. Oxford and O´Malley`s strategies comparison

This chart compares both metacognitive taxonomies in all their strategies.

O´Malley & Chamot (1990)		Oxford (1990)	
Metacognitive Strategies	Advance organizers	Indirect	Metacognitive strategies
	Direct attention	Indirect	Metacognitive strategies
	Selective attention	Indirect	Metacognitive strategies
	Self-management	Indirect	Metacognitive strategies
	Functional planning	Indirect	Metacognitive strategies
	Self-monitoring	Indirect	Metacognitive strategies
	Self-evaluation	Indirect	Metacognitive strategies
	Delay production	Indirect	Metacognitive strategies
	Repetition	Direct	Cognitive strategies
	Resourcing	Direct	Cognitive strategies

Cognitive Strategies	Translation	Direct	Cognitive strategies
	Grouping	Direct	Memory strategies
	Note taking	Direct	Cognitive strategies
	Deduction	Direct	Cognitive strategies
	Recombination	Direct	Cognitive strategies
	Imagery auditory	Direct	Memory strategies
	Representation	Direct	Memory strategies
	Keyboard	Direct	Memory strategies
	Contextualization	Direct	Memory strategies
	Elaboration	Direct	Memory strategies
	Transfer	Direct	Cognitive strategies
	Inferencing	Direct	Compensation strategies
Socio -affective strategies	Cooperation	Indirect	Social
	Question for clarification	Indirect	Social
	Self-talk	Indirect	Affective

Source: Lee (2010)

It is interesting to notice that almost all the Metacognitive Strategies coincide in both systems, if it is considered that the actions in this strategy serve to the general function of planning, organizing and evaluating the learners` own learning.

The next aspect to be considered in this comparison, relates to the fact that both systems include affective strategies (which refer to emotions, feelings or motivation towards learning) and social

strategies (that include the ability to learn with other people). In the case of O`Malley`s (1990),

they are mixed in the same category, while in Oxford`s they are split in two different strategies.

Nowadays, there are still_some problems in classifying learning strategies. According to Cohen

(1996), "The third problem results from the fact that different criteria are used to classify language

learning strategies, causing inconsistencies and mismatches across existing taxonomies and other

categorizations"(p.7). However, research continues to show their usefulness in the process of

language learning.

Nevertheless, despite of the fact that there is no a concrete or decisive classification, the

researchers prefer Oxford's taxonomy because she links each of the learning strategies with all four

language skills in a practical way. Moreover, Oxford describes both her overall strategy system

and the particular use of learning strategies in a real-life through comprehensible terms. In this

regard, we as teachers of foreign languages can understand learning strategies and finally, students

may become better learners as Oxford highlights.

1.3.4 *Metacognitive language learning strategies.*

Metacognitive strategies go overhead to cognitive ones. Cohen (1996) suitably describes

metacognitive strategies as those which "[...] deal with pre-assessment and pre-planning, on-line

planning and evaluation, and post-evaluation of language learning activities and of language use

events" (p.4). Also, Oxford (1990) states "metacognitive strategies are actions which go beyond

purely cognitive devices, and which provide a way for learners to coordinate their own learning

process" (p.136). Therefore, metacognitive strategies deal with everything that is related to learners´ control of their learning process or their own cognition.

Moreover, as Oxford highlights, language learners are quite often overwhelmed by a large amount of new things with respect to unfamiliar vocabulary, confusing grammatical rules, and additionally, different styles of teaching. All these things can cause that the learners become confused, so it is suggested that to get back learner´s focus, conscious use of metacognitive strategies, namely paying attention and overviewing / linking with already known material, is necessary (Oxford, 1990). Thus, metacognitive strategies help learners to arrange and plan their language learning in an effective way, address and learn from errors and evaluate their whole progress.

Accordingly Oxford (1990), states that metacognitive strategies are divided into three major groups as follows:

Table 4. Oxford metacognitive learning strategies classification
This chart shows the three main strategies and states specific actions within each of them.

METACOGNITIVE STRATEGIES	Centering your learning	-Overviewing and linking with known material -Paying attention -Delaying speech production to focus on listening
	Arranging and planning your learning	-Finding out about language learning -Organizing -Setting goals and objectives -Identifying the purpose of a language task -Planning for a language task -Seeking practice opportunities
	Evaluating your learning	-Self monitoring -Self evaluating

Source: Oxford (1990)

1.3.4.1 *Centering your learning.*

This group of strategies focuses on learners´ awareness of learning process and includes three strategies – overviewing and linking with already known material, paying attention, and delaying speech production to focus on listening.

The strategy **overviewing and linking with already known material** is presented by Oxford (1990), "This strategy involves previewing the basic principles and/or material (including new vocabulary) for an upcoming language activity and linking these with what the learners already know" (p. 152). It can be evidenced in a class session when students have to face a new topic and they make connections based on certain vocabulary, images or previous knowledge in L1 that serve as a bridge to relate the new information with the prior understandings.

Regarding **paying attention strategy**, there are two kinds of attention included, namely directed and selective. Directed attention means that learners focus their attention to the task globally, whereas selective attention is based on paying attention to particular details. Generally, the strategy of paying attention is implemented in all four language skills. As a result, when students achieve to establish an appropriate level of attention and connection with the topic, for instance, by listening, participating, note taking, watching, asking questions, commenting; their understanding could reach better levels of comprehension.

The principle of **delaying speech production** strategy is based on waiting until learners´ speaking skills are developed on such a level that learners feel they are able to produce speaking.

Oxford (1990) suggests that this strategy "helps to build solid listening comprehension skills, and encourage students to speak as soon as they are ready, without any externally imposed delay" (p. 155). However, it may take time due to the fact that there are a great deal of apprehensive learners in the classroom.

1.3.4.2 *Arranging and Planning your learning.*

This set of strategies serves learners to organize their learning process effectively and contains six strategies – finding out about language learning, organizing, setting goals and objectives, identifying the purpose of a language task, planning for a language task, and seeking practice opportunities.

The strategy *finding out about language learning* deals with learners` interest in effective ways of their language learning, which includes also learners´ awareness of various learning strategies. Therefore, teachers should support their pupils to use this strategy encouraged them to share their all difficulties with language learning skills and strategies with others.

In regards to the strategy *organizing*, it concerns to creating good conditions for effective learning not only in the classroom but also at home. To achieve this goal, Oxford (1990) includes comfortable physical environment, scheduling well, and keeping a language learning notebook into this strategy. Teachers should provide learners the mentioned conditions and also advise learners how to implement these conditions for home learning.

The other strategy called *setting goals and objectives* is essential in learning process and learners should be aware of what they want to achieve in their learning and particularly in language skills. Oxford (1990) compares learners without any aims for language learning with ´boats without rudders´. Learning without both goals and objectives is useless, consequently the learners should learn to set up their own learning objectives, for them to get involved and motivated in their own purposes, not only for a complete unit topic, but for any particular proposed activity as in the case of the strategy of planning their language tasks.

*Planning for a language task i*s a strategy which is used for all language skills and helps learners do a task successively. The strategy includes four steps and Oxford (1990) names them as identifying the task, determining the specific requirements of the task, checking the resources available within the learner, and the need of further aids.

The last strategy of this set is *seeking practice opportunities*, which is related to the learners who should search for adequate ways of how to improve their language skills outside the classroom.

1.3.4.3 *Evaluating your learning.*

This group of strategies refers to learners´ ability to reflect on their language performance. Teachers evaluate learners´ performance by marks; however, learners should be able to evaluate themselves as well. Two strategies belonging to this group are named self-monitoring, and self-evaluating.

The strategy *self-monitoring* focuses on learners´ paying attention to their errors. Oxford (1990) suggests that learners should write down what their language difficulties are and try to eliminate them. It means to consider their errors as learning opportunities, having in mind to avoid the repetition of the same mistake. Using this strategy helps learners recognize what they should direct at in order to avoid wrong using of language and thus to improve their language skills. This strategy is connected with correcting learners´ errors, but those learners should be benefited from their errors and not be stressed by them.

The strategy called *self-evaluating* is referred to evaluating learning process by learners themselves, either progress in a specific language skill or in general. According to Oxford (1990), the process of evaluating can be realized in many ways including diaries, journals, or checklists. The learners may kept them and write their self-assessment either during or after an activity.

The metacognitive strategies become the nucleus of the present study and their subgroups have a critical relevance since they were guided by the researchers in a classroom, where the students were given some specific tasks in order to promote their consciousness on how they may use these strategies.

It is important for students to be aware that they could be using certain learning strategies, which can be put at their service in a systematic way, in order to organize their learning in a more efficient manner. Likewise, learners can acquire the habit of using the learning strategies to become better learners, not only to learn a foreign language but in any learning situation.

Moreover, developing metacognitive strategies is a crucial point on the path of helping students to become more autonomous and self-directed. If students become conscious of how they learn, then they could be able to identify the most effective ways of doing so. Thus, one way to develop metacognitive strategies awareness is asking students how they tend to confront the different learning tasks in the classroom, and how effective the strategies they are using are.

Additionally, they can set up clear and concrete learning objectives as well as to monitor their learning during the activities or tasks and finally evaluate their process in order to make changes for future learning tasks. In this way, they may recognize their difficulties by themselves and also find the strategies that can apply in order to overcome them. Therefore, using the three major metacognitive strategies; namely, centering, planning, and evaluating allow students to take part in their own learning process.

1.3.5 *Content and Language Integrated Learning: CLIL.*

The researchers have selected CLIL as a "vehicle" in which the topics are provided as an opportunity to connect ideas to academical content in Biology school classes or to be associated to experienced knowledge. This fact allows learners to open the possibility make mental reflections about what they know and what they might learn about the proposed topics by considering their personal expectancies.

CLIL is an abbreviation for Content and Language Integrated Learning. Many definitions have appeared along last years, some of them stated by the most important researchers in this field. In 2002 Marsh (cited by Bentley, 2010) defined it as "An approach... that may concern languages; intercultural knowledge, understanding and skills; preparation for internalization and improvement of education itself" (p.5). So, this definition shows some relevant issues that teachers should keep in mind to assist their students for being able to face the global society. In 2010, Coyle, Hood and Marsh stated a more detailed definition:

> Content and Language Integrated Learning (CLIL) is a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language. That is, in the teaching and learning process, there is a focus not only on content, and not only in language. Each is interwoven, even if the emphasis is greater on one or the other at a given time. (Dale and Tanner, 2012, p.3).

In this definition, there are two particular ideas. The first one is related to the fact that CLIL takes into account not only the teaching but the learning process as well; on the purpose of integrating the teaching of any subject content by using a target language. In this way, the learner is faced to a dual challenge; learning both content and language at the same time. A second idea refers to the fact that if a teacher makes emphasis on any of these elements; be content or language, they will follow being integrated. For reaching this purpose, it is necessary to establish clear objectives in both, content and language.

According to our experience, we have perceived that students gain confidence and they can be more motivated; when topics used in classes as well as material are interesting or familiar. Additionally, it is important to notice that students have learned a lot of the content in their mother tongue. Thus, teachers should use that previous knowledge, contextual experiences and meaningful tasks in order to improve students´ language proficiency.

CLIL is sometimes referred to as having four Cs as their components: content, communication, cognition and culture.. Hence, a brief and useful description of the four components of CLIL will be done in the next lines, taking into account the concepts presented by Coyle, Hood and Marsh (cited by Bentley 2010). This is important because the integration of all of these is one way to define teaching aims and learning outcomes.

- Content: Content matter is not only about acquiring knowledge and skills, it is about the learners creating their own knowledge and understanding and developing skills (personalized learning). The curricular subjects taught in CLIL include art, geography, history, technology, science and so forth. Likewise, in CLIL context, it is needed to analyse content for its language demands and to present content in an understandable way.

- Communication: learners have to produce subject language in both oral and written forms. It is necessary to encourage learners to participate in meaningful interaction in the classroom. When learners produce the target language while studying curricular subjects, they show that subject knowledge and language skills are integrated.

Likewise, Perez-Vidal (as cited in Betley, 2010) pinpoints that "by using the language for learning content, communication becomes meaningful because language is a tool for communication, not an end in itself" (p.7)

- Cognition: CLIL promotes cognitive or thinking skills which challenge learners. Content is related to learning and thinking. To enable the learners to create their own interpretation of content, it needs be analyzed in terms of their linguistic demands. Teachers need to developed learners´ cognitive skills so they can study subjects from the curriculum. Some of these skills include creative thinking and critical thinking. Teachers need to analyze the learning processes for their language demands and to teach learners the language they need to express their thoughts and ideas.

- Culture: The role of culture, understanding ourselves and other cultures, is an important part of CLIL. Learners need knowledge of those who live in other regions or countries. CLIL gives opportunities to introduce a wide range of cultural contexts and wants to develop learners who have positive attitudes and who become aware of the responsibilities of global as well as local citizenship. Inside of classroom, teachers should value different home languages and beyond of these, they could be links with partnership schools and make use of internet to communicate with learners across the world about the different important local projects.

The 4Cs Framework which constitutes the strong theoretical basis of CLIL, becomes a powerful vehicle to increase motivation, enhance proficiency and most important for this study the opportunity to involve metacognitive strategies in order to promote awareness in their use.

It is important to state that in the school curriculum CLIL has not been considered as an Educational approach or have not been emphasized the interdisciplinary work on the purpose of establish connection among the different subjects, thus CLIL within this project becomes an opportunity to innovate in teaching strategies, engage students` motivation with meaningful topics from Biology content and accomplish to the interdisciplinary possibilities.

Bentley (2010) supports the idea that it is necessary to develop not only knowledge during the learning process, but also help students to increase their levels of metacognition.

> The learning process is complex. Learners learn by exploring their environment and by interacting with people. This is part of active learning. In school, learners develop more than knowledge of different subjects; they need to develop positive attitudes, learning skills and learning strategies. Learning skills are skills which involve how to learn and developing learner autonomy. (p. 26)

CLIL could play an important role in fostering metacognition, due to the fact that it is an innovative approach in our public context that integrates several components that are favorable to engage students, develop motivation, foster teamwork and also generate communicative possibilities.

CLIL has the possibility to engage students in the content topic, owing to the knowledge they have previously acquired along their personal experiences or during their academic subject learning in L1. This fact could lead students to develop more self-confidence to take part in the CLIL tasks during the class sessions.

Another interesting aspect that CLIL provides to this project, consists of the fact that the learning process is learner-centered. If we consider that students are in need of communicating their feelings, understandings and knowledge, this means that they need to be active and develop better levels of compromise and autonomy.

Moreover, the communicative necessities CLIL creates are derived from the content topics that are being worked. These topics which are part of the learner's prior knowledge become more significant in students` learning process. Indeed, CLIL uses the target language as a tool to learn the subjects' content, and those contents are used as a meaningful means to learn and use the language communicatively.

In the same way, CLIL tasks are immersed in a close context to the learner, which could generate positive attitudes toward them, developing higher levels of autonomy, as the activities and tasks are planned on the basis of content topic which could be easily linkable to learners` surroundings.

Furthermore, CLIL promotes thinking skills that include the creative thinking and the critical thinking (Mehisto, Marsh & Frigols, 2008). The author supports his statement based on the different possibilities CLIL could develop on learners. Before making a complete list of verbs that

could show some evidence of learners` advance, the author establishes that, creative thinking is present when generating new ideas or when connecting to relational links, synergies and quality relationships. Creative thinking is an essential element in effective planning or propose various solutions to any pedagogical situation. Critical thinking also involves the evaluating of all the process and learnings, at the last of a process critical thinking could be used to re-planning as a form of improving performed actions The previous conceptions match properly to this project as we consider that learners need to be in the sense of linking with known material, as well as planning and evaluating learning situations.

The researches have considered CLIL is a reliable approach to be used in order to make metacognitive connections to background knowledge, to establish clearer purposes of content learning, to plan objectives, to monitor their learning, etc., due to the fact that this approach provide students more options in relation to subject content. It means that CLIL content provides learners the topic context to develop new learnings based on previous ideas, which was previously established as creative thinking, in the same sense it allows learners to plan their goals in relation to personal dispositions or expectancies. CLIL also promotes communicative interaction and considers the particular culture of our students in relation to basic aspects students need to face in relation to any learning situation. In Berry´s words (2014) "in CLIL classrooms the importance of the cognition is already well recognized as one of the 4C´s, together with content, communication and culture, metacognition adds another layer that asks us to focus not only on cognition but our cognition about cognition" (p 13).

Additionally, CLIL benefits the metacognitive work, since the relation among its components, enables to see not only English functionality and usefulness but also allows to use it in all its communicative dimension. In CLIL it acquires more relevance the communications in itself than the mere act of using language forms without specific ideas to be expressed. CLIL provides the topics to be develop and to make connections to new learnings and also involve the learners in the learning process in a more active way, as it was said the topics become more significative.

Hence, communication is a central aim in the process, which facilitates to make reflection on the learning process, by linking with previous knowledge, setting goals, monitoring and evaluating learning about significant topics for learners. Mehisto at al. (2008) mention that "as a case in point, a CLIL program in Montreal allowed students to set their own objectives, choose activities of interest for them and proceed their own pace. The students assume greater responsibility for their learning than would be the case in a teacher-centered class." (p.203).

In consequence, in order to help our students to construct their own learning, they need to be taught how to learn efficiently and become autonomous learners. Thus, we have in our hands a complete and powerful tool named CLIL; to be used to foster metacognition, increase motivation, innovate our practice and construct an integrated learning which considers learners` backgrounds and experiences as well as previous knowledge.

This Theoretical framework can be observed in a graphical form in the next mind map which shows the connections among the different constructs and aspects previously considered.

Graph 1

Theoretical framework mind map
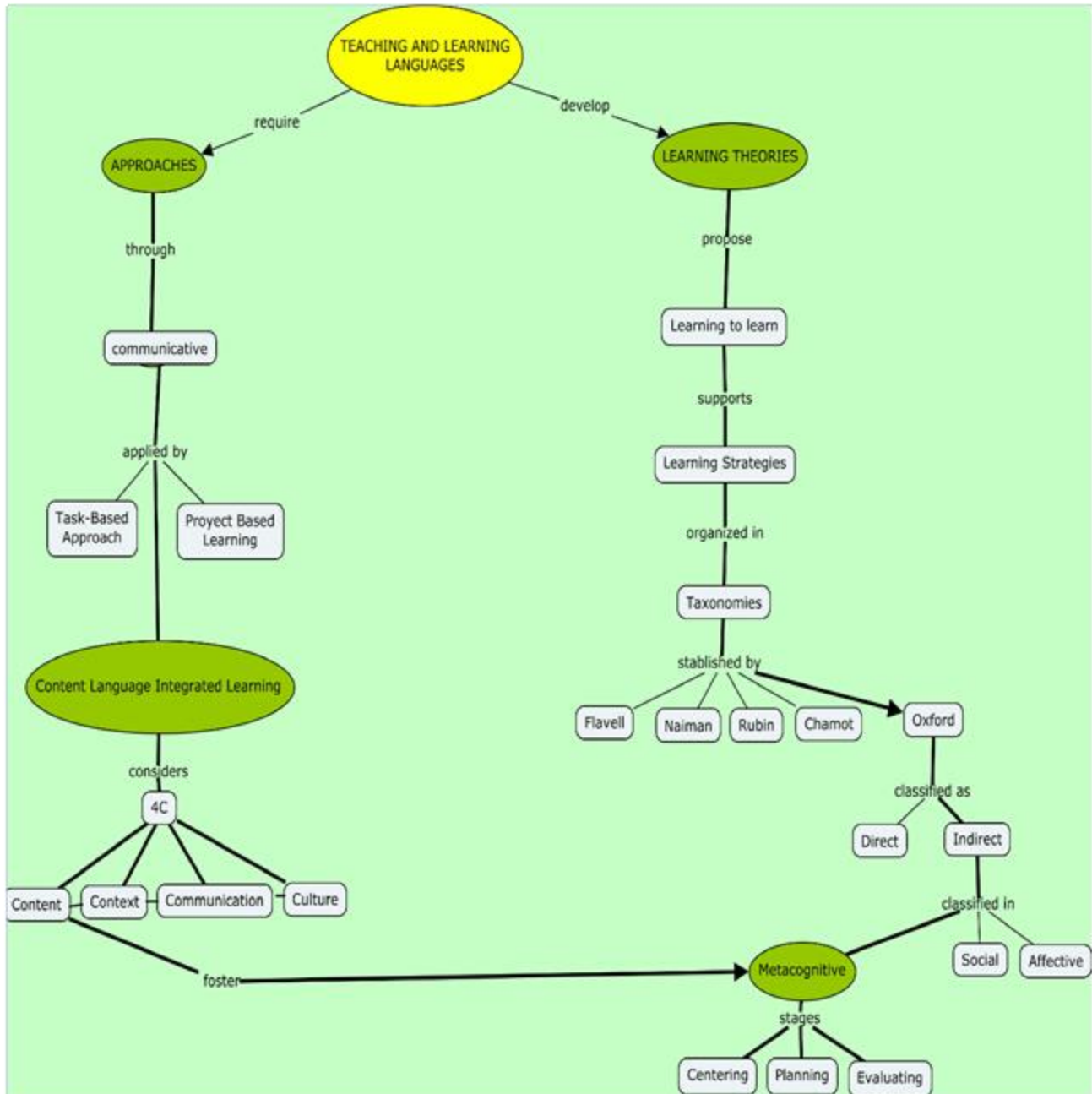
Chapter II

2. Methodological Design

2.1 Type of study.

This study has been carried out under the principles of the qualitative paradigm which is described by Merriam (1998), and characterized by four principal pillars: Firstly, having a real situation as a main component, the researcher requires direct contact with the stated problem and population. Secondly, the researcher is interested in understanding the meaning people have constructed. Thirdly, qualitative studies use inductive research strategies, which explain and evaluate the data. Finally, the ending product of the study is richly descriptive.

On the other hand, this study is also framed within the features of the action research model, as it aims to apply research in order to help to modify practices in teaching and learning, where we are the instructors and at the same time the researchers in the goal of improving the quality of our teaching and our students` learning process through our implementation in CLIL to foster metacognition. In Cohen, Manion and Morrison's words (2005), it is "a small-scale intervention in the functioning of the real world and a close examination of the effects of such an intervention" (p.186).

Moreover, Carr and Kemmis (1986) describe action research according to three correlated areas of teaching; the improvement of practice, the improvement of the understanding of practice and the improvement of the situation in which the intervention takes place. The intervention in this study searches to foster the knowledge and use of metacognitive strategies in a group of sixth

graders by the implementation of a set of CLIL lessons. Thus, both teachers-researchers and students could improve their own practices in order to teach and learn in an adequate way.

In addition, Kemmis and McTaggart (cited in Cohen, Manion, & Morrison, 2005, p. 227) argue that 'to do action research is to plan, act, observe and reflect more carefully, more systematically, and more rigorously than one usually does in everyday life'. Kemmis and McTaggart (cited in Cohen and et al. 2005) also stated that action research involves a spiral of self-reflective cycles of planning, acting and observing, reflecting and then, re-planning, acting and observing, reflecting, etc. This study takes into account of Kemmis and McTaggart´s spiral because this model permits to do a reflective process by the researchers.

In the case of the present study we as teachers researchers selected Kemmis and McTaggard´s model, as it allows us to apply several interventions. For the present study, we planned three interventions based on the Biology content for the situation to be studied. After each intervention was performed, the gathered information was analyzed and adjusted according to the necessities, to be taken into account in the re-planning and application of the next intervention and in this way repeat the spiral process, established in the model.

Kemmis and McTaggard (cited in Cohen et al., 2005) state:

> Action research allows us to give a reasoned justification of our educational work to others because we can show the evidence we have gathered and the critical reflection we have done, have helped us to create a developed tested and critically-examined rationale for what we are doing (p. 230).

The practical part of this study follows the four basic stages established by Kemmis and McTaggard. Initially the planning stage involves two basic actions: a diagnosis questionnaire and the design of the first implementation, which took into account the metacognitive learning strategies usage. Secondly, in the acting stage, the accomplishment of previous activities and the final task during the class time by the students. Thirdly, the observing stage that refers to the data collection through instruments, such as the KWLH Chart, where their letters mean: K (for "What we Know"), W (for "What we Want to find out"), L (for "What we Learned") and H, (for "How we learned"), the planning for a language task format and the researchers` field notes template, with the purpose of observing students' process during the implementation. Finally, the reflection stage in which the second implementation was planned according to the collected information and reflections about students learning process during the first lesson. When the first cycle of the spiral was completed; and based on these observations and collected data, the second and third cycle were performed by following the same stages: planning, acting, observing and reflecting.

2.2 Context.

The present project was carried out at La Floresta Sur school (LFSS), a public School, located in Kennedy 8th zone of Bogota. LFSS is organized in two shifts, the afternoon shift where this study was implemented, has a population of three hundred thirty students distributed in eleven groups. Each school level is generally conformed by two groups, in 2015 there were two groups in sixth grade.

In secondary school, students take twelve subjects, each class lasts fifty minutes and in the case of English there is an intensity of three classes per week. English teachers follow a textbook in all its secondary grades and English has been set as one of the main interests in the School.

LFSS has an emphasis on communication in L1 as a pedagogical strategy for students and citizen formation. This emphasis is evidenced in different projects (made in Spanish with some basic participation in English), such as a weekly magazine, a semestral newspaper, a monthly mural newspaper and permanent broadcasting of the school radio station which are guided by the Spanish-English teachers staff.

2.2.1 *Participants.*

They are twenty five students that belong to sixth grade of the afternoon shift; conformed by eleven female students and fourteen male ones. The students' ages are between eleven to fifteen years old.

Afterwards, ten students were selected to be the research sample. They were selected in a random way due to the fact that the group presented similar features, although the pedagogical implementation was driven with the whole group.

2.2.2 *Teachers-researchers' role.*

Considering the nature of this study and the essential principles of Action Research, the role of the researchers could be defined as observers and also as participants. As researchers, who participate in designing and implementing actions directed to improve a particular situation within the classroom and as observers, who collect data and analyze them in order to explore theories, methods and in our case, to answer a research question.

During the implementation, both of us were guides in order to facilitate the learning process. One of us was the English content teacher and the other was the observer, we became active members of the process in which we designed and implemented the three units; we also collected data from students.

2.3 Ethical considerations.

A letter (Appendix A) written by the researchers was sent to the School`s Principal asking for the permission to implement the research study with the group of participants from the sixth grade selected. Parents and participants were also consulted to take part in the project, they were asked to formalize their participation by signing consent letters. (Appendix B).

2.4 Description of data collection instruments.

Data collection took place during three months, September, October and November 2015. Researchers planned three interventions related to the science program at LFSS. The instruments for data collection were designed based on the metacognitive principles from Oxford`s theory. Hence, the instruments considered for this study were: a questionnaire on metacognitive strategies use, applied as a diagnosis; the KWLH (Chamot adapted chart), a language task planning chart, a survey and a field notes in the intervention stage.

- Questionnaire on metacognitive strategies use

Based on Oxford`s taxonomy specifically on the metacognitive strategies, it was designed a questionnaire (Appendix C). Wilson and McLean (cited in Cohen and et al., 2005) state that "the questionnaire is a widely used and useful instrument for collecting survey information, providing

structured, often numerical data, being able to be administered without the presence of the researcher, and often being comparatively straightforward to analyze" (p.245).

This instrument`s objective was to inquire about the actions or study habits students used to perform during their daily academic routines not only in the school, but also at home to carry out their homework. The questionnaire was structured in a friendly way using the dichotomous model, it only require a "yes"/"no" response by the participants. The questions were designed according to Oxford`s subcategories and they were distributed in the following way. Questions one to three corresponded to *Centering your learning.* From question four to eleven, they corresponded to *arranging and planning your learning,* and the last two questions were based on *evaluating your learning.*

- KWLH adapted chart

The KWLH chart (Appendix D), according to Ogle (cited in Chamot and et al., 1999) is "a graphic organizer that is especially useful in identifying prior knowledge, setting learning goals, and reflecting on what has been learned" (p.119). It is composed of four columns where their letters mean: K (for "What we Know"), W (for "What we Want to find out"), L (for "What we Learned"). The fourth column, market H, (for "How we learned") may provide a learning evaluation to the students.

The researchers considered this chart as a valuable instrument for being used along the intervention, due to its design follows the different stages of the metacognitive process in relation to a new studied topic. Principles of Oxford`s taxonomy were considered to be included in the

chart, but keeping Ogle`s initial idea. The researchers added a new item in order to ask the learners about which strategies could be used to reach their goals.

The KWLH chart was used at different moments along each intervention. At the beginning of each intervention, students linked the topic with previous knowledge, then they established personal goals in relation to the topic and at the same time they proposed to themselves some strategies to achieve the personal goals. At the end, learners defined what their specific learnings on the topic were and mentioned what actions were used by them to achieve those goals, in order to compare them to the ones they had initially planned.

- Language task planning chart

According to the implementations design, at the end of each unit students had to present a final task. Nunan (cited in Richards & Rodgers, 2001) defines the communicative task as "a piece of classroom work which involves learners in comprehending, manipulating, producing or interacting in the target language while their attention is principally focused on meaning rather than form". (p. 224). Thus, for students to plan their final task, a chart (Appendix E) was designed by researchers to provide metacognitive help to students and evidence for been registered about the way they conducted their learning challenges. The purpose of this instrument was not only supply some clues to organize the final task, but to contrast their answers in order to verify if the way they had planned the activity was the same as the one performed at the end of the process.

- Survey

In 1993 Pinsonneault and Kraemer (cited by Glasow 2005) defined a survey as a "means for gathering information about the characteristics, actions, or opinions of a large group of people". (p.1). Moreover, the same author adds that "surveys can also elicit information about attitudes that are otherwise difficult to measure using observational techniques (p.2)

This instrument (Appendix F) was designed for students to register their responses about the strategies they used along their learning process. The purpose of this instrument was to contrast the initial state and use of metacognitive strategies with the possible advance that might be perceived during second and third intervention. The survey was composed by three specific questions based on the main categories in Oxford´s taxonomy specifically about metacognitive strategies; centering, arranging and planning and finally, evaluating their learning. The first question was answered by the students at the beginning of the intervention, the second one in the middle and the last one, at the end of this. The similar process was applied to the others two interventions.

- Field notes

Field notes is a written instrument that is based on researcher`s observation, in this instrument (Appendix G) all the interactions, attitudes or specific situations that could be considered relevant for the study were registered. Patton (cited in Cohen et al., 2005) states "the researcher is given the opportunity to look at what is taking place *in situ* rather than at second hand" (p.305). In this sense, the researchers designed this data collection instrument to register information specifically on metacognitive aspects from Oxford`s taxonomy, which were emerging during the implementation of this project.

2.5 Validity and triangulation.

In the validation stage, the instruments previously described were adapted or designed by the researchers. Moreover, the instruments were piloted with some other sixth graders. The students´ comments and suggestions were taken into account by the researchers in order to redesign and applied the instrument again for obtaining a possible better result.

In the case of the questionnaire, it was planned, providing the students answers four options, according to the frequency they used to perform the different strategies. However, in the piloted stage, the researchers noticed that students' answers tended to be in the middle two options, which possibly pretended not to show students` compromise in relation to the accomplishment or not to the strategy. Considering this situation, the researchers modified the format, providing them the option "yes" or "No", to answer each item, the questionnaire was modified in this way in order to detect the opposite answers by deleting the middle options, which might be providing comfort and lack of compromise.in relation to each strategy use.

Another situation observed in the piloting stage was the fact that in the same item question the researchers had included two types of questions a "Yes" "No" question and at the same time, an open question on the purpose of obtaining a wider information in relation to examples of specific actions in a strategy use. The solution for this situation was to delete the open in the "Yes" "No" questions.

The validity process of these instruments and their further adjustments, allowed us to obtain precise information that was reliable for being analyzed along the triangulation stage.   According

to Campbell and Fiske (cited in Cohen et al., 2005, p. 112), triangulation is a powerful way of demonstrating concurrent validity, particularly in qualitative research. Furthermore, Cohen et al. (2005) define it as "two or more methods of data collection in the study of some aspect of the human behavior..." (p.112). For this reason, four instruments were designed in order to gather information tended to answer the research question.

In the triangulation process of this project, the researchers followed the next process. Initially, the researchers collected and read the instruments filled by the students to analyze the metacognitive language learning process during the three interventions. Secondly, field notes allowed the researchers to gather data from the students' metacognitive strategies usage within the classroom interactions. Finally, the researchers contrasted and compared the data extracted from the instruments in order to find meaningful patterns that enabled the researchers to interpret and analyze the findings.

Chapter III

3. Instructional Design

3.1 Objectives

a) To integrate sixth grade Biology school curriculum to the English learning process in order to implement Oxford`s metacognitive strategies.

b) To design learning activities and tasks in the framework of CLIL lessons, on the purpose of observing the learners` metacognitive process.

c) To generate opportunities for students to apply the acquired learnings in authentic and significant situations**.**

The researchers have chosen CLIL as an innovative approach to be used in the LFSS public context. This selection has considered the different dimensions CLIL has to integrate content and language in a natural way.

CLIL could benefit the present study, due to the fact that content topics are more meaningful to the students as they have been studied in the regular Biology classes. Thus, the three planned interventions were chosen from the school curriculum in this subject, as they corresponded to the third and fourth terms planning; time in which the interventions were performed. The reason for this selection was to strengthen the possibility of linking the topics in both languages. This fact could help to engage students in the interventions development in a more effective way and at the same time it could favor the metacognitive learning strategies as the topics were already covered in L1, fact that could give students the possibility to deepen or clarify certain aspects.

In relation to the interventions based on CLIL; the researchers chose the backward design as a supporting planning methodology, which could involve students into significant and communicative learning tasks by developing scaffolding activities, and planning objectives that lead to the different goals CLIL and the study required.

The backward design is described by Wiggins and McTighe (2005), as "a helpful process, a design, a template, a set of tools and design standards to make the plan and resultant students' performance more likely successful by design than by good fortune" (p.21).

The same way, the backward design according to (Covey cited in Wiggins and McTighe) is "to begin with the end in mind means to start with a clear understanding of your destination. It means to know where you are going so that you better understand where you are now so that the steps you take are always in the right direction" (p. 1).

The backward design consists basically on three stages as follows:

Graph 2. Backward design stages.
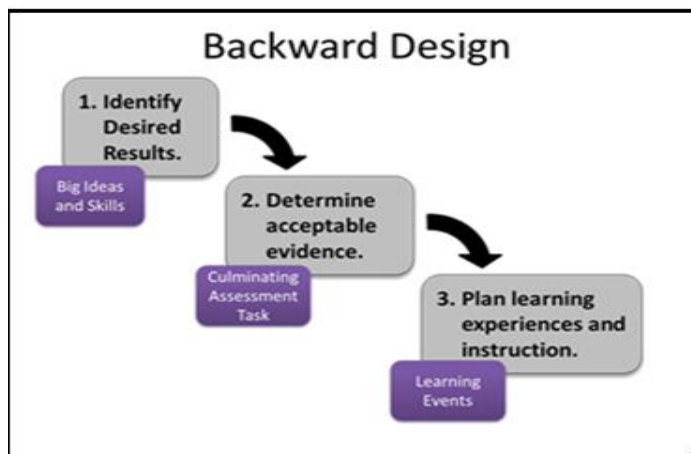
Wiggins, G.P. & McTighe, J (2005). Association for Supervision & Curriculum Development

- Stage 1: Identifying the desired results

In this stage the researchers considered the goals, examined established contents, reviewed curriculum expectations and made the choices according to the priorities or needs we considered according to La Floresta South School context.

- Stage 2: Determine acceptable evidence

The backward design theory encouraged us to think about some implementations in terms of the collected assessment evidence required to document and validate that the desired learnings could be achieved. This is how, we decided to plan a final task for each intervention, in which we proposed to students, some communicative situations related to their surround, that involved the learnings achieved in the previous activities as well as, it was possible to observe the metacognitive fostering process.

- Stage 3: Plan Learning Experiences and Instruction.

With clearly identified results and appropriate evidence of understanding in mind, it was possible to plan instructional activities by having in mind what facts, principles, concepts or skills would students need to perform effectively in order to achieve the desired results. Teachers also needed to consider what activities could provide learners with the needed knowledge and skills. Moreover, we needed to select the materials, equipment and forms to be presented for achieving the desired learnings.

To sum up, the backward design applied to this study consisted of selecting some coincident Biology content with the intervention period of time. We supported these content selections as it

could be the most natural and concrete content from school subjects, as Biology topics belong to their surroundings. Then the *desired results* where planned first, in terms of Content goals related to three Biology topics, second in terms of language goals related to the learning of English and third, metacognitive goals, planned based on the specific aspects from Oxford`s taxonomy, the researchers wanted to base on. The second stage was labeled as an *assessment evidence*, which set up the final tasks based on the content and language goals, which were planned to present communicative evidence of the understandings. In the case of the last stage it referred to the *learning plan* that consisted on the series of activities planned in order to provide information and knowledge for students to perform the final task and for the researchers to observe the metacognitive learners´ process. (Appendix H)

To do so, the backward design provided the possibility to plan activities not only to incorporate concepts and vocabulary, but also to involve learnings into a final task or project within a real and significant situations, in which understandings could be evidenced.

3.2 Implementation.

Three interventions were designed under the principles of the Backward Design which were based on the Biology program for sixth grades, as it was mentioned previously. According to the Biology program the planned topics were: Digestive system and nutrition, Food classification and finally the Circulatory system.

The first intervention topic was *digestive system and nutrition*, it was planned for four weeks and involved five specific activities to focus on a final task. The second, *food classification,* was

planned for three weeks considering that it could be linked in an easier way with the first intervention. The last one, was *circulatory system*, this unit was also planned for three weeks as the previous.

Each activity was planned on a scaffolding manner, it means that an activity was the basis of the next one, being all of them interrelated, on the purpose of guiding the learners to the final task within each unit. Furthermore, the final task was characterized for having a communicative nature, basically learners were required to produce some writing and oral outputs. Moreover, the learnings and understandings were planned to be involve in an authentical situations. Besides having a CLIL structure, the planning had a metacognitive aspect to be assessed. Thus, students performed their learning tasks while researchers observed the Oxford's metacognitive strategies usage, based on students' answers in the designed instruments and the note taking about their attitudes and behavior in relation to the tasks.

It is important to clarify that learnings refer to the basic content knowledge students acquire along the process, it means the concepts about the topic; and understandings are seen in backward design as the comprehension put into students´ real context, it means the usefulness of the concepts in the learners` lives. In words of Wiggins and McTighe (2005), "We think of understanding by design as a software, in fact, as a set of tools for making ultimately more productive…. to avoid the habits of that are at the heart of activity-based or coverage-based design" (p.21).

Chapter IV

4. Data Analysis

Regarding the data analysis stage, the researchers applied the Thematic Analysis Theory (TA) which is according to Boyatzis (cited in Braun & Clarke, 2006, p.6), "a method for identifying, analyzing, and reporting patterns (themes) within data. TA is a method that due to its flexibility can potentially provide a rich and detailed organizes and describes the data set in (rich) detail".

Although several data analysis methods coincide in different ways, in relation to the form they conduct the information codification or classification; TA differs from other methods as Braun and Clarke (2006) establishes,

> *"Thematic analysis differs from other analytic methods that seek to describe patterns across qualitative data such as, "thematic" discourse analysis, thematic decomposition analysis, interpretative phenomenological analysis (IPA) or grounded theory. Both IPA and grounded theory seek patterns in the data but are theoretically bounded" (p. 8).*

The fundamental difference TA presents in relation to the previously mentioned methods, especially IPA and grounded theory, consists on they seek for interpreting and understanding people's everyday experience, providing explanation to the process in a data supported theory. Other attractive feature TA contains according to Braun and Clarke (2006), is that "TA does not require the detailed theoretical and technological knowledge of approaches such as grounded theory and Deductive Analysis (DA), it can offer a more accessible form of analysis particularly for those early in a qualitative career"(p. 9).

According to Braun (2006) TA has some other features which could be well-adapted to the present research, let us revise the next:

- TA is not wed to any pre-existing theoretical framework: this feature is very useful as we, could adapt our theory to the different stages TA presents, and it could be used according to the needs of our study.

- TA can be essentialist or realist method: as it reports, experiences, meanings, and the reality of participants.

- TA can be constructionist method: as it cannot or does not seek to focus on motivation or individual psychologies, it instead seeks to describe the socio cultural contexts and structural conditions that enable the individual accounts that are provided. In our case the context, situation and students` voice about this process

- TA can be a contextualized method: as it acknowledges the ways individuals make meaning of their experience, for this study it permits the possibility of identifying the forms the learners assume or understand the metacognitive strategies.

Moreover, we took into account the flexibility as one of its main features, it means according to Braun and Clarke (2006) that " those who use thematic analysis can make active choices about the particular form of analysis they are engage in" (p. 5). In addition, it is stated by Braun and Clarke (2006), that this flexibility has to do with the determination of themes according to the research´s features and the researchers´ necessities and point of view.

There are some basic concepts necessary to get close to the sense of understanding the further thematic analysis. The first one is *data corpus,* which refers to all data collected for a particular research project. Second, *data set* refers to all the data corpus that is being used for a particular analysis. The third one refers to *theme*, which Braun and Clarke (2006) state as "a theme captures something important about the data in relation to the research question, and represents some level of patterned response or meaning with the data set" (p.10). The fourth one, relates to what should be the size of the theme. Braun and Clarke (2006) explains that it is a question of prevalence in terms of space within each data item and across the entire data set, it is not based on a mathematical quantity, but on the relevance it contains in the data set or corpus.

In relation to the theme consideration, Braun and Clarke (2006) state that the researcher`s judgement is necessary to determine what a theme is. Braun and Clarke also add that the researcher needs to retain some flexibility, which is one of the main features of TA, as rigid rules do not work.

The researchers take into account the data analysis model of TA, which follows six phases:

Phase 1: familiarizing yourself with your data, this involves "repeated reading" of the data, and reading the data in an active way searching for meanings, patterns and so on.

Phase 2: generating initial codes, this phase then involves the production of initial codes from the data. Codes identify a feature of the data (semantic content).

Phase 3: searching for themes, involves the classification of the different codes into potential themes and collating all the relevant coded data extracts within the identified themes.

Phase 4: reviewing themes, begins when researchers have devised a set of candidate themes, and it involves the refinement of those themes.

Phase 5: defining and naming themes, it is necessary to conduct and write a detailed analysis for each individual theme. As well as identifying the "story" that each theme tells, it is important to consider how it fits into the broader overall "story" that researcher is telling about his/her data, in relation to the research question.

Phase 6: producing the report, this is to tell the story of the data in a way which convinces the reader of the merit and validity of the analysis.

Finally, when considering the level of analysis, we selected the semantic approach, as the researchers are in the sense of observing how the learners organize their metacognitive actions in relation to the planned learning situations on the frame of Oxford`s taxonomy (1990); without deepening on their reflections about the metacognitive process. Having this consideration in mind, we analyzed the theme set on the primary response level.

We supported this level of analysis based on (Boyatzis cited in Braun 2006, p. 13), who states that, "a thematic analysis typically focuses exclusively or primarily on one level. With a semantic approach, the themes are identified within the explicit or surface meanings of the data and the analysis is not looking for anything beyond what a participant has said or has been written".

4.1 Diagnostic stage.

This starting phase was carried out through a dichotomic survey (Annex C), that contained thirteen questions based on Oxford`s metacognitive taxonomy. The purpose of this questionnaire was to determine the sixth graders initial metacognitive state.

Graph 3. Metacognitive strategies results of the diagnostic questionnaire.
This graph shows the studied group results in the diagnostic questionnaire designed based on Oxford`s taxonomy
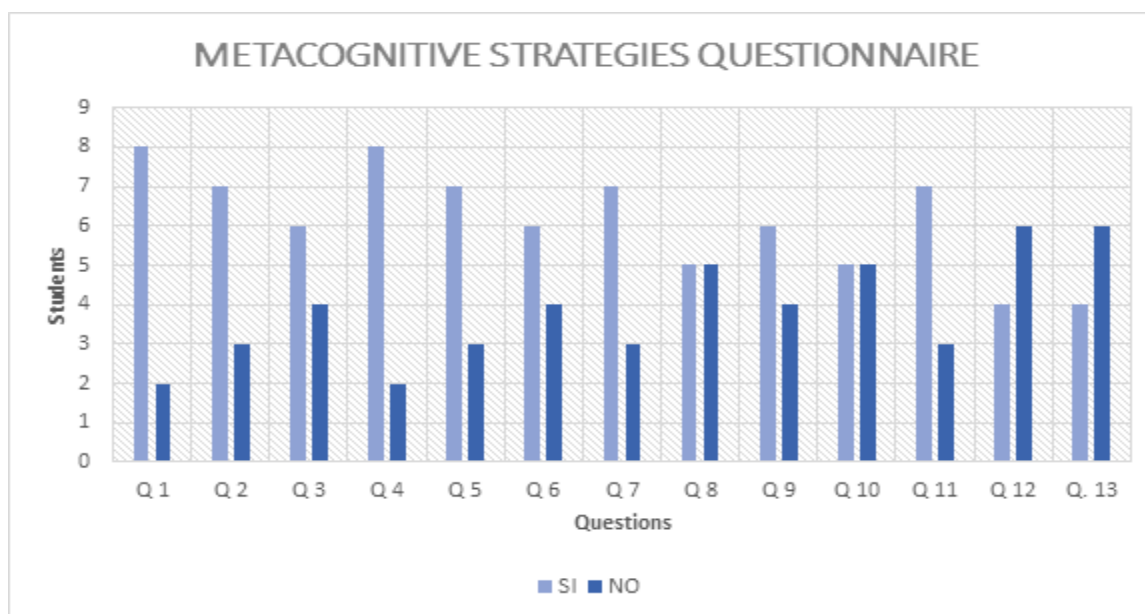
The data analysis, determined that in c*entering your learning* for question one, 80 percent of the students tend to relate the new topic with previous knowledge. In the case of question two 70 percent of them try to avoid distractions when starting a new topic. For the question three, 60 percent manifested to prefer keep listening than to start speaking when beginning a new topic.

For the second category in Oxford`s taxonomy, *arranging and planning your learning* that in this diagnosis correspond to questions four to eleven; the results showed that: In question four 80 percent of the students tend to find out by themselves any kind of support, when they face difficulties in their learning process. For questions five and seven that refer to school supplies and studying place organization respectively; 70 percent manifested to have a place and the necessary school elements for performing their activities in an efficient way. In the case of question six that refers to time organization; 60 percent of the students expressed to have schedules for performing their tasks. In the case of questions eight and ten, which refer respectively to planning objectives and to establishing strategies for reaching them; 50 percent of the students in both questions manifested to perform these learning actions. For question nine related to identification of the purpose of a language task, 60 percent of the students expressed they clarify the purpose of a learning activity. In the case of eleven, seeking for practice opportunities, 70 percent of the students affirmed to have the habit of practicing what they learn.

For the last category *evaluating your learning,* questions twelve and thirteen that correspond respectively to self-monitoring and self-evaluating in Oxford`s taxonomy. 40 percent of the students followed a personal process of monitoring and evaluating their learning process.

The results observed in this diagnosis phase showed the researchers that the majority of the learners answered in a positive way in the first two main metacognitive strategies (centering your learning; arranging and planning your learning), this is a fact that the researchers considered necessary to be

confirmed or dismisses along the implementation. The third strategy evaluating your learning which shows the lowest result requires to be revise to determine possible causes.

The researchers considered, based on the highest results in the first question, recalling previous knowledge and the fourth one finding out about language learning, could be useful in the process of gaining students` interest for starting a metacognitive process that involves them as active agents in their learning process.

4.2 Implementation stage.

With the gathered information at the implementation data collection stage, the researchers followed the data analysis model of TA, which is organized in six phases that allowed us to analyze in detail the three interventions.

In the *first phase* we made the "data corp" reading for several times, in order to search meanings and key thoughts given by the participants. After theses reading sessions, some initial codes were considered.

In the second phase the researchers classified the "data set" codes according to the established patterns by identifying them with different colors on a matrix in order to find any relation among them. Likewise, the researchers codified all data extracted from the participants` instruments, an example of this codification, could be seen in following the graph.

Graph 4. Colored coding matrix.

This is the KWLH chart, where some initial codes were stated and highlighted with colors.

IMPLEMENTATION 1

KWLH CHART

CENTERING LEARNING WHAT I KNOW	ARRANGING AND PLANNING LEARNING WHAT I WANT TO LEARN	STRATEGIES FOR LEARNING	EVALUATING LEARNING WHAT I LEARNED	HOW I LEARNED
Confusión de conceptos (5)	Objetivo de contenido (7)	Estrategias cognitivas () Estrategias lingüísticas ()	Learning on content ()	Classroom Learnings
Relaciona con el tema (5)		Desarrollo autónomo ()	Leaning on language (6)	Autonomous Learnings
sirve para procesar alimentos, envía proteínas a la sangre, botar las toxinas no necesarias. ST.01	como se procesa bien la comida y como le come la clase vuelve en desechos y también ser científico para eso.ST. 01	Estudiar mucho inglés, también de experimentos. estudiar bien los procesos y centrarme en eso. ST. 01	Aprendí el sistema digestivo. ST. 01	Lo aprendí en clase normal con videos y carteleras ST.01
El corazón que bombea la sangre, los pulmones para que podamos respirar. El estómago donde queda la comida ST.02	Cómo funciona el hígado, el páncreas y los dos intestinos. ST.02	Leer en internet o libro, hablar con personas que sepan del tema. ST. 02	Aprendí casi todas las partes del cuerpo humano. Pero se pronunciar todas las partes. ST.02	Aprendí poniendo atención, de las observaciones y de todas las actividades que hicimos ST.02
yo sé cómo funciona cada órgano, como se transfiere la comida, el colon, los riñones. ST.03	Cómo funciona el organismo cuando se come, como la vesícula explota chide, que pasa cuando un hueso se parte. ST.03	Estudiar y que me enseñen expertos, ir a clases de inglés para aprender del tema. ST.03	Aprendí a nombrar y a pronunciar los órganos del sistema digestivo. ST.03	Lo aprendí con la ayuda de mis profesores y mi práctica. ST.03
se sobre el estómago, el intestino grueso, la glándula, la tráquea. ST.04	ST.04 Quiero aprender bien los órganos, como es su función y como es todo su proceso. ST. 05	Poner más atención y estudiar más. ST.04	Aprendí las partes del sistema digestivo en inglés y su proceso ya a identificarlo. ST.04	Poniendo atención y siguiendo las instrucciones del profesor. ST.04 Aprendí por las actividades y explicaciones que hicieron los profesores. ST.05
los intestinos, el colon, la digestión, como funciona cada órgano. ST. 05	ST.06 Quiero aprender cómo llegan las proteínas a la sangre ST.07	Basarme en mi conocimiento de ciencias Naturales. Buscando en libros, videos, internet, etc. ST. 05	Aprendí a pronunciar las partes digestivas, cuáles son, cómo se escriben en inglés, cómo funcionan. ST.05	Aprendí con las actividades que nos pusieron los profesores y repitiendo muchas veces. ST.06
yo se que sirve para procesar los alimentos, se que las vitaminas se van a la sangre. ST.06	Yo quiero aprender todos los procesos de todos los órganos del sistema digestivo. ST. 08	Prestando interés en clase, estar atenta a lo que el profe me dice, investigar cómo puedo mejorar lo aprendido en clase. ST. 06	Aprendí cómo se escriben los nombres del sistema digestivo, como se pronuncian. ST. 06	Aprendí por medio de las actividades que hicimos con los profes. ST. 07
yo se algunos órganos del sistema digestivo, las funciones de los órganos, que es parte muy importante del cuerpo, que el estómago ayuda a triturar la comida. ST.07	Quiero aprender cómo se digestionan los alimentos, por donde pasan, en qué lugar se van y cólmo lo hacen ST.09	Yo creo que poniendo atención, averiguando que me explique alguien que sepa del tema ST.07	Aprendí a decir los nombres del sistema digestivo ST.07	Aprendí gracias a las exigencias de los profesores. ST. 08
	Yo quiero aprender la función de cada órgano, para que sirven y cómo cuidar el sistema ST. 10	Hacer ejercicios en clase, practicar mucho en casa. ST. 08	Aprendí algunas partes del sistema digestivo. ST. 08	
El estómago sirve para procesar los alimentos, el intestino delgado sirve para pasar los nutrientes, el grueso sirve para botar los desechos por el ano. La tráquea sirve para ingerir los alimentos ST.08		Viendo todo lo anterior, pues lo que quiero saber podría estar ahí o en un libro o incluso por internet. ST. 09	Aprendí el sistema digestivo, sus órganos, características, las cosas de los doctores, lo bueno y lo malo que se debe hacer en la digestión ST.09	Empleando lo que ya sabíamos y con las actividades que se hicieron. ST. 09
El corazón, los pulmones, el estómago, el hígado. ST. 09		Poner atención en clase, buscar en internet, leer libros del tema y entender. ST. 10	Aprendí las partes del sistema digestivo en inglés, las funciones, los órganos y el órgano principal. ST. 10	Lo aprendí poniendo atención a las actividades, estudiando y practicando. ST. 10
El sistema digestivo maneja alimentos, el hígado hace parte del sistema digestivo, las glándulas				REVISAR ESTA COLUMNA Y MIRAR CHAPTER IV. Releer.

As the next three thematic analysis phases, *searching for themes* (phase 3), *reviewing themes* (phase 4) *and defining and naming themes*, (phase 5), are closely interrelated due to they refer to the consolidation of the final themes; we made this process by reading the data set several times on the searching of better names to identify each of them. After that, we defined some themes (phase 3), we refined those candidate themes that involved the code classification (phase 4) into potential themes (phase 5), for this phase some candidate themes were suppressed or slightly modified. The final themes were classified and then, some examples from the data set were provided to support them.

4.2.1. *First intervention.*

- Centering your learning

Considering Oxford`s taxonomy (1990), in which the first strategy relates to *overviewing and linking with known material* and following the adapted KWLH chart; students were asked to write about what they already knew in relation to the topic "digestive system in human beings". Their answers allowed the researchers to establish two main patterns based on the clarity of their knowledge:

-Content topic: some students related the new topic to their background knowledge in terms of what they have learned in L1.

St. 01:"Sirve para procesar alimentos, envía proteínas a la sangre, botar las toxinas no necesarias".

St. 06:"Yo sé que sirve para procesar los alimentos, sé que las vitaminas se van a la sangre".

-Confused concepts: other students presented difficulties to express their ideas about their background knowledge.

St. 02: *"El corazón que bombea la sangre, los pulmones para que podamos respirar. El estómago donde queda la comida".*

St. 03: "Yo sé cómo funciona cada órgano, como se transfiere la comida, el colon, los riñones".

***Taken from intervention 1. Week 1,* September 9th.**

Additionally, the researchers' field notes: "students tended to ask to other students about what to write or to confirm their ideas. The same way, many of them looked for approval from their teachers". This fact, evidences that many students were not conscious of the knowledge they had in relation to the topic.

Hence, researchers established from previous analysis that, in spite of some students presented confusion when expressing their connections to the topic; all of them made the relation with other close topics they have studied in L1, such as circulatory, respiratory or excretory systems.

- Arranging and planning your learning

After a warming up activity, students were asked to set their personal objectives in relation to the topic on the purpose of fostering the setting goals and objectives strategy.

Students' answers made possible to establish two main trends: Content objectives and linguistic objectives.

-Content objectives: Majority of the students established personal objectives related to the content of the topic.

St. 05: "Quiero *aprender bien los órganos, como es su función y como es todo su proceso"*.

St. 08: "*Yo quiero aprender todos los procesos de todos los órganos del sistema digestivo*".

-Linguistic objective: The students focused on the language learning, basically of vocabulary and pronunciation.

St. 04: "*Quiero saber más sobre las partes del sistema en inglés*".
St. 06: "Quiero *aprender inglés, todos los órganos y pronunciarlos bien*".
Taken from Intervention 1. Week 1, September 9th.

In relation to this strategy, the researchers registered in the field notes "learners tried to ask their partners for help on what objectives to plan and how to write them, they also requested the teachers for their approval about what they have written". This situation evidences their hesitation in relation to this new challenge in the learning process.

After students had set their personal objectives, they were requested to establish some strategies they could implement in the process in order to reach their pretended goals. From this data, two basic trends were established: Autonomous development and cognitive strategies.

-Autonomous development**:** Some learners focused on actions that reflected some learning strategies like seeking for practice opportunities, or they expressed their purpose to look for help on direct source of knowledge or by using technological aids. These actions showed their necessity of reinforce by themselves.

St. 09: "Viendo todo lo anterior, pues lo que quiero saber podría estar ahí o en un libro o incluso por internet".

St. 05: "Basarme en mi conocimiento de ciencias Naturales. Buscando en libros, videos, internet, etc.".

-Cognitive Strategies: A minority of students set strategies which refer mainly to general actions like study.

St. 04: "Poner más atención y estudiar más".
St. 01: "Estudiar bien los procesos y centrarme en eso". **Taken from Intervention 1. Week 1, September 9th.**

We attribute this situation to the fact that some students at this point of the study are not aware of specific actions for reaching their goals and they tend to involve any action within studying as an obvious learning activity for reaching their goals, as their vocabulary in relation to metacognition is restricted.

The researchers registered in the field notes: "the students sought for support from their classmates and require guide from their teachers in order to establish the strategies for reaching their personal objectives". This way, they gained self-confidence in relation to what they were doing. This fact became recurrent in the first intervention, due to the fact that learners were faced to a new way of being guided in a learning process.

According to the backward design planning, students had to prepare a final task at the end of each intervention. For this purpose students were asked to follow a planning format for them to take into account some task patterns. Thus, the students filled out a second metacognitive instrument where they wrote some strategies in order to plan their final task; which consisted on a role-play based on a medical situation with the use of a doctor´s prescription format. The instrument contained three basic aspects: Prescription format, prescription content and the role play planning.

Table 5. Task planning chart trends.

Prescription format	
Technological aids usage: the majority of students expressed as a strategy the use of technological aids, which allowed them to take out the idea from a real context. **St. 07:** "Hacerlo en el computador, parecido a los de internet". **St. 03**: "Buscar en google ejemplos de formato y desarrollar en Word Paint con todos los datos que hayan ahí".	**Traditional aids usage:** a few students used common classroom aids in order to perform their task. **St. 04**: "Mi estrategia puede ser hacerlo en cartulina con los datos". **St. 01**: "Buscar ayuda en internet y mirar fórmulas de médicos de verdad". **Taken from Intervention 1. Week 3, September 23rd.**
Prescription content	
Communicative context: some students identified properly the communicative purpose of the task and expressed it in their ideas. **St. 05**: "Tres recomendaciones positivas y una de medicación". **St. 07**: "Daremos tres recomendaciones relacionadas con lo que tenga".	**Misunderstood instructions:** a significant amount of learners registered some information that did not correspond to the instrument requirements. **St. 01**: "Lo busque en internet". **St. 09**: "Me lo invente". **Taken from Intervention 1. Week 3, September 23rd.**
Role play planning	
Communicative context: they reflected that the most important item was to inform about the health recommendations to be expressed by the characters. **St. 06**: "Yo diré lo más importante que es lo del doctor. Lo planeamos hablando tranquilamente y que mi compañero respondiera bien". **St. 01**: "Lo idee con mi compañera como nos gustaría hacerlo como los médicos de verdad".	**Cognitive strategy:** some other students expressed their concern for emphasizing on the way they would prepare their performance. **St. 02**: "Lo planee con mi compañero memorizando". **St. 10**: "Practicamos lo que íbamos a decir y le preguntamos a los profes para ver si estaba bien". **Taken from Intervention 1. Week 4, September 30th.**

Note: Own source.

For the first part of the task in spite of they were established two patterns, in both of students expressed the necessity of following a real model to design their format, what means that real context influence learners` actions.

In relation to the prescription content, the data set allowed us to determine that some students had difficulties in understanding the communicative purpose of the task. As they filled the format for this section with irrelevant information.

In the case of the role play preparation, the researchers noticed that learners implemented some learning strategies such as, employing action, specifically in using mechanical techniques, evidenced as they wrote their speech on a paper and practiced it for several times. They also required the teachers´ attention in order to receive feedback for improving their performance, this second action in Oxford`s taxonomy corresponds to the strategy *seeking practice opportunities* classified in the strategy, arranging and planning your learning.

- Evaluating your learning

Considering the learning evaluation process, which is the last aspect considered in Oxford`s taxonomy; researchers requested the students to write down about their acquired knowledge in relation to the digestive system in human beings. From this data, the researchers established two main trends: Learning on content and learnings on language.

-Content Learning: some of the students referred to learnings basically based on content.

St. 08: "Aprendí algunas partes del sistema digestivo".
St. 09: "Aprendí el sistema digestivo, sus órganos, características, las cosas de los doctores, lo bueno y lo malo que se debe hacer en la digestión".

-Language Learning**:** some other students mention to have learned about language.

St. 03: "Aprendí a nombrar y a pronunciar los órganos del sistema digestivo".
St. 06: "Aprendí cómo se escriben los nombres del sistema digestivo, como se pronuncian".

-Content and Language learnings**:** a fewer amount of students expressed to have learned both types of knowledge.

St. 02: "Aprendí casi todas las partes del cuerpo humano. Pero se pronunciar todas las partes".

St. 04: "Aprendí las partes del sistema digestivo en inglés y su proceso y a identificarlo".

Taken from Intervention 1. Week 4, September 30th.

According to the information, related to students` learnings, which were mainly focused on language and content. It is important to notice that the metacognitive process advance is shown in the next step, where learners were requested about how they had reached their learning goals. Thus, metacognition is not evident in the learnings they acquired, but in the process they carried out in order to learn them. Anyway, in students performed activities, like content quizzes, students obtained good scores about their learnings, as it is shown in the next example.

During the observation process, the researchers registered in their field notes:" students were less persistent on the searching for help from partners or approval from teachers". In the researchers' opinion, this aspect was assumed for students with a higher confidence level, due to the fact that they had previously received a reflection from teachers in the sense of being precise and conscious of the real learnings, without taking care of the amount of information or concepts they have learned.

After the students had described their learnings, it was given them the instruction to write what actions or strategies they had used to acquire those learnings. From this data analysis researchers classified the findings in two groups: from classroom actions and metacognitive actions.

-From classroom actions: most of the students expressed to have acquired their learnings by following teachers' guidance and instructions to perform the activities.

St. 01: "Lo aprendí en clase normal con videos y carteleras".

St. 05: "Aprendí por las actividades y explicaciones que hicieron los profesores".

-From classroom and metacognitive actions: some students expressed a combination of classroom strategies and autonomous actions for reaching their learnings.

St. 09: "Empleando lo que ya sabíamos y con las actividades que se hicieron"

St. 03: "Lo aprendí con la ayuda de mis profesores y mi práctica".

Taken from intervention 1. Week 4, September, 30th.

Practice and linking with previous knowledge were the manifested actions that some students started to consider and use as learning strategies in their learning process. This aspect is very

relevant for the study, due to the fact that these learners began to consider their active participation as crucial factor for the learning success.

4.2.2 *Second intervention*

A second unit based on the topic, food groups and nutrition was guided by following the same stages proposed in the backward design framework present in the first intervention. Additionally, a survey was applied along the intervention on the purpose of monitoring students' metacognitive process in the strategies of centering, planning and evaluating.

- Centering your learning

For the first aspect in the KWLH chart, what I know; the researchers established three main trends: content knowledge, linguistic knowledge and knowledge awareness.

-Content knowledge: Most of the students included basically content aspects in their descriptions about their previous knowledge in relation to the establish topic.

St. 05: "Yo sé que la alimentación es importante para la salud, mente, el corazón, el buen estado del cuerpo".

St. 06: "Sé cómo puedo tener una sana alimentación, y cómo me van a nutrir".

-Linguistic knowledge: Some other, made their description about prior knowledge based on

linguistic aspects.

St. 01: "Yo sé la pronunciación en inglés de las frutas, también sé cómo es la escritura".
St. 03: "Yo sé algunos nombres de los alimentos".
-Knowledge awareness: other students included some descriptions relation to their knowledge

level or necessity.

St. 04: "Sé un poco sobre los grupos de comida pero necesito saber más".
St. 08: "Pues del tema no se tanto, me sé unos alimentos y de qué grupo son".
                                                                 Taken from Intervention 2. Week 1, October, 14th.

It is important to point out that in this stage, some new trends arose as the result of the improvement in students` description of their prior knowledge. Thus, these descriptions appeared to be more elaborated and centered to the specific topic.

The researchers described in the field notes: "students answered easily the first aspect, due to the fact that they had already done it previously. Some of them completed the format in a short time, without requiring any help". This fact evidences an initial level of autonomy and awareness about their prior knowledge, because of the confidence about what they know in relation to the topic.

- Arranging and planning your learning

In relation to the second aspect, setting goals and objectives, the researchers classified students` descriptions in three trends: content objectives, linguistic objectives and metacognitive awareness.

-Linguistic objective
St. 03: "Yo quiero aprender a hablar más inglés para que me vaya mejor en clase".
-Metacognitive awareness
St. 05: "quiero aprender cómo puedo aprender a pronunciar los alimentos de todo tipo".
-Content objective
St. 09: "quiero aprender los grupos de alimentos; los buenos, los malos, las rutinas, como se deben comer.
  Taken from Intervention 2. Week 1, October 14th.

In some cases two trends appear in the same objective as follows.

-Mixed categories in learning objectives: majority of the students manifested in their objectives to have expectancies on learning about content and linguistic, as well as they included some metacognitive ideas.

St. 01: "yo quiero aprender todas las frutas y el vocabulario de ellas".
St. 04: "quiero identificar bien los grupos y saber los nombres en inglés. Sé cómo puedo tener una sana alimentación, y cómo me van a nutrir".

St. 07: "yo quiero aprender qué alimentos son malos para el cuerpo. Los valores nutricionales de algunos alimentos, aprender su pronunciación y escritura.   **Taken from Intervention 2. Week 1, October 14th.**

For the next aspect contained into the KWLH chart related to the *learners´ strategies use,* researchers set up two main categories: autonomous learning and linguistic strategies. It is important to point out that majority of learners planned to use strategies which also evidenced an initial level of autonomy in their actions, as they could be seen.

-Autonomous learnings: majority of learners included in their descriptions certain wishes and actions that tended to improve their language learning, which was evidence of their initial awareness development.

St. 01: "Yo siempre uso juegos en inglés para aprender, también con libros".
St. 02: "Yo quiero aprender, saber más del conocimiento, poner atención en lo que me dicen y no estar levantado".
-Linguistic knowledge: a small group of students manifested to work on strategies that involve linguistic knowledge.

St. 05: "...memorizarme muchas cosas como palabras y pronunciación".
St. 06: "Poner atención y lo que no entiendo volver a preguntar o simplemente volver a pronunciar".
     Taken from Intervention 2. Week 1, October, 14th.
For the second intervention, the final task design was thought on the idea of giving the students more autonomy for planning their activity. Students basically had to write about what to do and how to do it in relation to their final task, for this unit, a menu for a two days outdoors activity. Thus, learners` ideas were expressed centering their attention on two trends: task focused on content and task focused on form.

-Task focused on content: half of the students expressed their ideas based on the content they planned to include.

St. 03: "Voy a hacer un folleto relacionado con las comidas en inglés que estamos viendo"
St. 10: "Voy a hacer un folleto con comidas para dos días".

-Task focused on form: the other half of the students, focused their attention on the form they planned to carry out the task.

St. 02: "Yo voy a hacer el folleto organizado, sin tanto desorden y centrar lo que voy a hacer".
St. 07. "Lo voy a hacer lo mejor que pueda para que cumpla con lo orientado en clase, para que me quede muy bien".
Taken from intervention 2. Week 2, October 21st.

Regarding to how they plan to do it, some ideas emerged from students which evidenced that learners were taking into account metacognitive strategies when planning a language task. Learners expressed the necessity to consider the previous knowledge in order to perform the activity or seek for practice opportunities in different information sources. -Metacognitive strategy use

St. 03: "Con las palabras utilizadas y con ayuda de libros o de alguien que sepa inglés".

St. 09: "Mirando si lo que hay ahí, ya lo hemos visto y empleándolo ahí"

St. 07: "Voy a buscar por internet y me voy a ayudar con lo que sé".

Taken from Intervention 2. Week 2, October 21st.

In the last part, students were asked about what strategy they had finally used in order to perform the task. This step had the purpose of contrasting their planning with their final actions to perform the task and also to self-evaluate it. From this data, students' information was classified in two trends: First, the students who followed the planned strategy, this fact evidence the monitoring process they are taking into account in their own learning process. Second, the learners who modified their actions to perform the task.

Table 6: Contrast between task planned and task performed

Followed the planned strategy	
St. 02: "Yo voy a hacer el folleto organizado, sin tanto desorden y centrar lo que voy a hacer". **St. 03:** "Voy a hacer un folleto relacionado con las comidas en inglés que estamos viendo". **St 07: "**Lo voy a hacer lo mejor que pueda para que cumpla con lo orientado en clase, para que me quede muy bien.	**St. 02**: "Yo hice el folleto días antes, con cartulina, dibuje y escribí cosas en inglés y español; y lo decore todo chévere y lo hice con tiempo". **St. 03**: "Lo hice en cartulina de color, utilice las palabras que vimos y lo decore bonito con la ayuda de mi papá". **St.07:** "Pues yo conseguí el papel y le coloque frutas y comida que encontraba en libros".
Followed partially the planned strategy	
St.04: "En el folleto voy a hacer como si fuera un menú de comida de restaurante; bonito y decorado **St.06: "**Voy a hacer un folleto de comida para dos días. con anticipación y cuidado". **Taken from Intervention 2. Week 2, Oct. 21th.**	**St.04:"** Lo hice en octavos de cartulina, con dibujos porque no tenía las figuras suficientes". **St.06**: "Lo hice en la mañana, me quedo regular porque falto colocarle imágenes de cada comida". **Taken from Intervention 2. Week 3, Oct 28th.**

Note: Own source.

This relation between the planned strategies and the performed actions could be evidenced in the following student`s task (04).

In relation to the answers collected from the survey, they appeared two main aspects: metacognitive awareness and self-assessment. Metacognitive awareness descriptions showed a notable increase on strategies use, mainly based on *centering your learning* and arranging and planning your learning strategies.

St. 01: "Mis estrategias son tener atención, y a veces busco en internet para ver y quitarme la duda".
St. 04: "Yo relaciono el nuevo tema con el anterior y si los dos coinciden se me hará más fácil, pero si el tema nuevo no coincide, entonces pongo mucha atención a la explicación".
St. 05: "Pues para enfocarme en mi aprendizaje, estudio lo que habíamos visto anteriormente".
Taken from Intervention 2. Week 3, October 28th.

Regarding to the self-assessment aspect, students notes evidenced certain weaknesses basically in the way they exposed their ideas, which were short and limited. This could be attributed to the lack of awareness when facing their own self-evaluating process, they give more relevance to the score they could obtain on an activity.

St. 01: "Yo siempre me evalúo en el estudio porque necesito aprender".
St. 04: "Pues evaluó mis exámenes o trabajos y ver mis notas y evaluar que aprendí".
Taken from Intervention 2. Week 3, October, 28th.

The learnings related to *Food Classification,* could be seen in the following student`s activities.
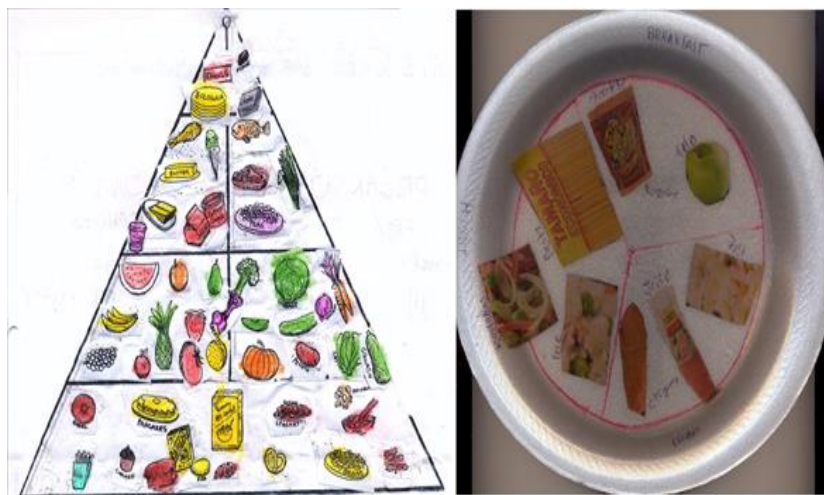
● Evaluating your Learning

Regarding to What I learned, from the KWLH chart, researchers observed two main trends: Content learning and Language learning. Both of them, basic elements of CLIL framework, that appeared in the first intervention.

-Content learning: most of the students made their descriptions based on content learning.

St. 06: "Aprendí cómo tener una dieta balanceada".

St. 08: "Aprendí sobre los alimentos, la pirámide alimenticia y los tipos de alimentos".

-Language learning: a fewer amount of students emphasized their learning on language learning mainly in vocabulary.

St. 04: "Aprendí los grupos de alimentos y su posición en la pirámide, sus nombres en inglés, (...)".
St. 10: "Aprendí cómo se dicen algunas comidas, también como se dice desayuno, almuerzo y cena".
Taken from Intervention 2. Week 3, October 28th.

For the last stage, *How I learned*, the researchers categorized the gathered information in two groups: autonomous learning and from classroom actions.

-Autonomous learning: Most of the students manifested to have used autonomous learning actions.

St. 04: "Presté atención y escuche las explicaciones relacionando algunos conceptos ya vistos".
St. 07: "Aprendí poniendo atención e interesándome en el tema".

-Language learning: Some other students expressed that they had learned by emphasizing on the activities and instruction given by the teachers;

St. 02: "Aprendí poniendo atención y con las explicaciones de la profesora".

St. 06: "Aprendí con las explicaciones que daban los docentes".

Taken from Intervention 2. Week 3, October, 28th.

4.2.3 *Third intervention.*

- Centering your learning

For this third and last intervention the process and sequence was the same as in the two previous ones. In relation to overviewing and linking with known material, the students' descriptions, presented two trends: content learning and knowledge awareness.

-Content learning: most of the students linked their previous knowledge to the new topic by supporting their ideas with concepts and explanations.

St. 02: "Yo sé que sirve para bombear la sangre del corazón y que la sangre sirve para llevar los nutrientes para todo el cuerpo".

St. 03: "Yo sé cómo la sangre pasa por las arterias y lleva los nutrientes a todo el cuerpo".

-Knowledge awareness: they evidenced conscious thinking about what they knew.

St. 04: "De este tema no es que sepa mucho, pero relacionándolo con el sistema digestivo voy a aprender".

St. 06: "La verdad no me acuerdo nada del sistema circulatorio".

Taken from Intervention 3. Week 1, November 4th.

- Arranging and planning your learning

When students were required to *plan their learning objectives;* it appeared a remarkable tendency towards content objectives.

-Content objectives: some learners expressed their ideas by planning objectives related to language learning.

St. 07: "Yo quiero aprender cómo funciona el corazón y cómo hace para llevar la sangre a todo el cuerpo".

St. 08: "Yo quiero aprender cómo funciona todo el sistema circulatorio".

St. 09: "Quiero aprender cómo funciona el corazón y que es lo mortal para él"

Taken from Intervention 3. Week 1, November 4th.

Researchers registered in their field notes: "this topic was clear and closed to students, it was evident in students` self-confidence when writing their ideas about previous knowledge", thus, they did not required help from their classmates or approval from the teachers. Moreover, the researchers wrote, "the learners were more conscious on planning their objectives, they took more time and chose the words they considered more adequate".

Regarding to what strategy they use in the same chart, the students considered to use different type of metacognitive strategies, as follows.

-Metacognitive strategies

St. 03: "Yo quiero estar evaluando mis aprendizajes y ser más atento y poner más atención".
St. 09: "Concentrándome en el tema y ya algo habíamos visto al principio de este proyecto con tareas, materiales".
St. 04: "Debo poner más atención y concentrarme en el tema, relacionándolo con otros temas".
> *Taken from Intervention 3. Week 1. November 4th.*

At this point of the study, researchers have evidenced that the sequence of metacognitive strategies use, emphasizing on Centering, Planning and Evaluating learning, established in the KWLH chart and followed within the backward design framework, have improved quality of their description in relation to the metacognitive strategies, which are now written in more organized way and are referred in metacognitive terms, as it could been read in the students strategies for the proposed objectives; which could interpreted as an initial stage of awareness development.

Regarding to the task performing, in relation to what to do, the gathered data allowed the researchers to determine that the students based their task under two main trends, similar to the second intervention: Content and form.

-Task focused on content: the students described clearly what they were required to do

St. 05: "Voy a hacer una campaña que está basada en cuidar mis pulmones y mi corazón".
St. 07: "Voy a hacer una cartelera expresando el cuidado de los pulmones y el corazón".

-Task focused on form: the students' descriptions contained elements related to the way they planned to present it.
St. 03: "Voy a hacer una cartelera y voy a colocar imágenes y frases respecto al tema".
St. 09: "Voy a hacer una cartelera con la frase. Mi cartelera va a tener recortes de un mal cuerpo de fumador".
Taken from Implementation 3. Week 2, November 9th.

In regards to the question how they plan to do the task; the same trends appeared and they were evident in the following students´ comments:

-Thinking about content and form:

St. 02: "Lo voy a hacer pegando y dibujando, le voy a escribir textos pequeños y bien decorado".
St. 05: "Voy a recortar algo que tenga que ver con el tema, hago frases que digan cómo cuidar mis pulmones y mi corazón".
Taken from Implementation 3. Week 2, November 9th.

When analyzing the last question, referred to how they carried out their final task, it was evident that many of the learners took into account the strategies they had planned. This way, it was possible to state that students have increased their level of awareness in metacognitive use, as they have considered strategies for *centering your learning, organizing and planning your learning* for achieving the best results in their learning process.

Table 7. Concurrence in planned task and performed task

Planned task	**Performed task**
St. 01: "lo voy a hacer en un pliego de cartulina, con imágenes y frases como prohibido el cigarrillo".	"Lo hice en un pliego de cartulina con unos dibujos de los pulmones y que no se debe fumar y lo escribí en inglés."
St. 02: "lo voy hacer pegando y dibujando y le voy a escribir textos pequeños y bien decorado".	"Lo hice con recortes de lo que se trataba el tema, escribí el texto bien y lo hice decorado".
St. 05: "voy a recortar algo que tenga que ver con el tema, hago frases que diga cómo cuidar mis pulmones y mi corazón". **Taken from Implementation 3. Week 2, Nov. 9th.**	"Pues yo descargue dos imágenes donde me muestran pulmones sanos y dos imágenes donde me muestran que hay un pulmón dañado, destruido y le agregue frases en inglés". **Taken from Implementation 3. Week 3, Nov. 13th.**

Note: Own source

Regarding to survey about the strategies students have used to center and plan their leanings; students expressed their ideas with a high level of clarity and self-confidence. Most of the students supply relevant information about the way they had assumed their learning process by monitoring it through reflections on the actions they had performed to improve and enclosed as:

-Metacognitive reflections

St. 02: "Yo me centro en mi aprendizaje, poniendo atención en lo que dicen, no distraerme en otras cosas, no jugar".
St. 03: "Yo utilizo libros, el internet, o diccionario o también le pregunto a mis amigas si saben, o a la profe".
St. 05: "Para enfocar mi aprendizaje tengo que tener muy buena concentración, tener mis materiales listos, tratar de entender lo que mis profesores hablan en inglés y concentrarme mucho".
Taken from Intervention 3. Week 3, November 13th.

In regards to survey in relation to the strategies learners have used for evaluating their process; the researchers perceived that some learners evidenced hesitation on their comments, manifested on a lack of consciousness on their evaluation process; in which they should take part actively.

However, some other students expressed clearly, the way they had carried out certain personal

strategies for evaluating their learning process.

-Hesitation in their evaluation process

St. 06: "Pues casi nunca pienso en evaluarme, solo cuando hago autoevaluación".
St. 08: "Yo no hago estrategias, solo espero a ver qué tema es y aprender lo que más pueda en clase".
-Personal strategies for evaluation

St. 02: "Pues yo puedo pensar que realmente aprendí en inglés; y yo me siento que aprendí muchas cosas en inglés".

St. 10: "Mentalmente recuerdo las actividades que hice y miro que aprendí, si se me grabo o no, sino me lo grabe,

estudio lo que no me aprendí".

Taken from Implementation 3. Week 3, November 18th.

● Evaluating your learning

For the final aspect of the KWHL chart, related to what I learned, the researchers perceived two

basic trends: content learnings, language learnings used in context.

-Content learnings: most of the students expressed their descriptions based on specific concepts

studied in any of the activities carried out along the designed unit.

St. 02: "Aprendí unas partes del sistema circulatorio, las venas y las arterias como intercambian el oxígeno".
St. 08: "Lo que aprendí es que las venas son las que se representan con azul y las arterias en rojo".

-Linguistic and context learnings: some students referred to their learning in terms of language

learning, and its applicability in real contexts.

St. 01: "Yo aprendí varias palabras en inglés del sistema circulatorio y sus partes".
St. 03: "que cuando uno corre, el corazón no está acostumbrado y tiene que fluir más sangre por lo cual debo cuidarlo".
St. 09: "Aprendí que hay que tener un corazón saludable y los pulmones saludables; o sea no fumar".
                                                Taken from Intervention .3. Week 3, November 18th.

Finally, when learners informed about the way they had reached their learning. *How I Learned,* their attention was focused on two important aspects: Activities performed during class and some strategies they had used.

-Classroom learning activities: many students manifested that all activities performed during classes allowed them in different ways to improve or reinforce their learnings

St. 02: "Leyendo el texto, poniendo atención, las guías fueron importantes para aprender".
St. 06: "Principalmente poniendo mucha atención, haciendo correctamente los trabajos y actividades".

-Metacognitive strategies: other students described learning actions that corresponded to metacognitive learning strategies, which helped them to achieve their learnings.

St. 07: "Aprendí poniendo atención e interesándome en el tema. Y buscando en internet para profundizar".
St. 06: "a ver visto casi siempre los mismos temas, pues los relacione y me ayudó a entender"
St. 08: "Aprendí poniendo atención y haciendo las clases más organizadas con mis propias metas".
 Taken from Intervention 3. Week 3, November 18th.

According to the information registered by the researchers in the field notes, learners have improved in autonomy and self-confidence: "students referred to their learnings in a more autonomous form, they recalled their acquired knowledge without help or approval, and reminding any performed activity. They also have learnt know how to fill the instrument".
Week 3, November 18th.

At the end of three interventions analysis, we identified the most common and relevant themes, then they were classified based on three main Oxford's metacognitive strategies.

Graph 5. Themes based on Oxford´s metacognitive strategies.
The final themes after being analyzed phases 3 and 4.
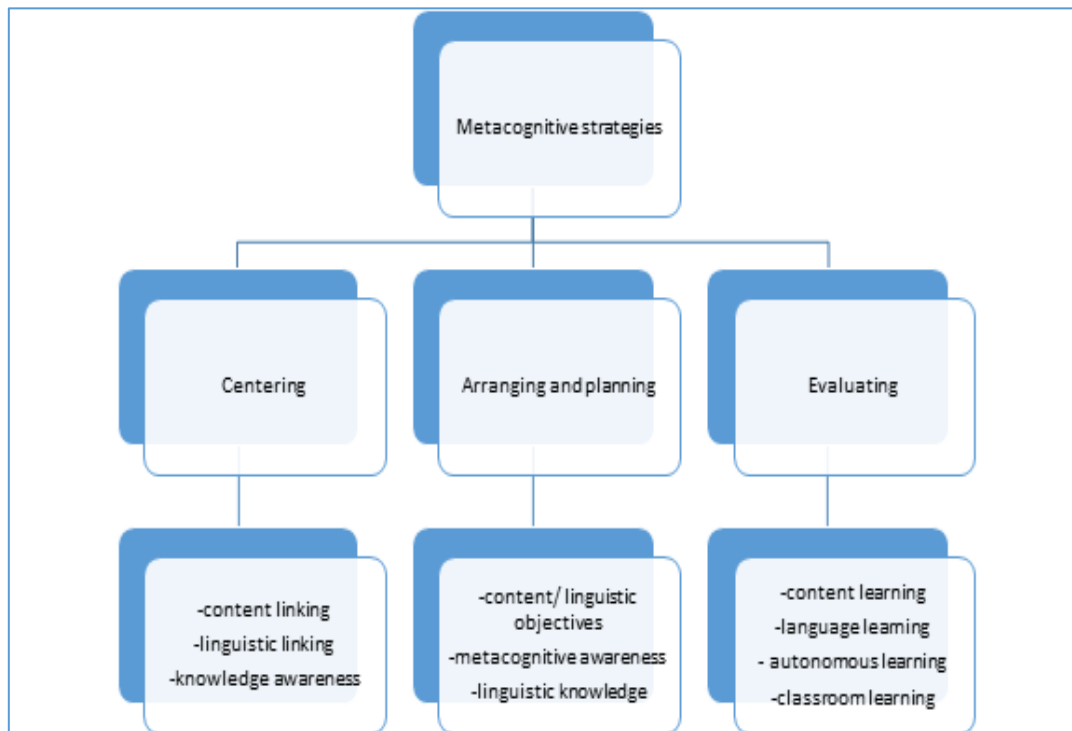
Note. Own source.

4.2.4 *Analysis report.*

At this point of the analysis, and taking into account the data set from the three interventions, a descriptive story *(Phase 6),* was structured in order to narrate the changes were observed along the whole implementation.

- First intervention

Along the first intervention, when analyzing the general information about the sequence of the different stages of metacognitive process that students registered in the applied instruments and being supported by the researchers' notes; it is possible to highlight some important aspects.

Initially, the researchers noticed that in most of the students there was not a clear sequence and coherence in the different metacognitive stages. In the planning stage students registered, they pretended to use some specific actions to reach their objectives, but in the evaluating stage, they registered to have used some different strategies without direct relation between them.

Table 8. Contrast between planned and performed actions.

Planned actions	Performed actions
St. 02: Leer en internet o libro, hablar con personas que sepan del tema. **St. 03**: Estudiar y que me enseñen expertos. **St. 05**: Basarme en mi conocimiento de ciencias Naturales. Buscando en libros, videos, internet, etc. **St. 09**: Viendo todo lo anterior, pues lo que quiero saber podría estar ahí o en un libro o incluso por internet. **Taken from Intervention 1. Week 1, Sep. 9th.**	**St. 02**: Aprendí poniendo atención, de las observaciones y de las actividades que hicimos. **St. 03**: Lo aprendí con la ayuda de mis profesores y mi práctica **St. 05**: Aprendí por las actividades y explicaciones que hicieron los profesores **St. 09**: Empleando lo que ya sabíamos y con las actividades que se hicieron. **Taken from intervention 1. Week 4, Sep. 30th.**

Note: Own source.

Moreover, students` notes evidenced weakness in structure and organization, due to the fact that students did not have the habit of doing reflection about their learning process. However, students received instruction from the researchers in relation to fostering the knowledge and use of metacognitive learning strategies.

On the other hand, the new design brought out interesting attitudes toward the activities, many students showed motivation and a good disposition to take part on them. Teamwork appeared to be one used strategy among students due to the possibility of interchanging ideas and receive immediate peer feedback.

Additionally, it was common to observe students asking partners or teachers for approval about the previous knowledge they had in relation to the topic or the development of an activity. The same way, it was important to notice that many students had difficulties to comply with materials or activities to the class. This situation caused some delays in some of the activities, which is evidence of lack of arranging and planning for a learning task, one of the metacognitive strategies that had one of the highest ranks in the diagnostic questionnaire, this fact contradicts the students' responses about this strategy that obtained a percentage of 70%, .

Finally, the researchers noticed that students presented difficulties when establishing clear personal objectives for the first CLIL lesson. In spite of, setting goals and objectives could be considered as a prime metacognitive strategy; this situation was understandable as learners were in the process of fostering the metacognitive strategies.

- Second intervention

Students have shown a relevant advance in relation to the strategies they use. While in the first intervention students planned a strategy for reaching their learning objectives and finally

modified their learning actions; in the second intervention, some of them kept the strategies that they had planned when established their learning actions.

Table 9. Relation between planned and performed strategies

	Planned strategy	Performed strategy
St. 02	Yo quiero aprender, saber más del conocimiento, poner atención en lo que me dicen y no estarme levantado.	Aprendí poniendo atención, de las observaciones y de todas las actividades que hicimos.
St. 04	Poner más atención y relacionarlo con temas anteriores o utilizar el diccionario.	Presté atención y escuche las explicaciones relacionando algunos conceptos ya vistos.
St. 09	Ver en el cuaderno para revisar si hay algo de ahí que pueda emplear.	Aprendí relacionando lo que ya sabíamos, con las actividades que se hicieron.

Note. Own source

Based on the field notes registered in the second intervention, researchers, observed different students attitudes, which can give evidence that sample students presented a high level of attention (centering your learning), and this attention was perceived as a result of their motivation on the purpose of understanding the videos presented by teachers; action that corresponds to delaying speech production to focus on listening.

Moreover, they expressed their ideas of matching previous knowledge vocabulary with the new context (overviewing and linking), when they were doing their activities. Likewise, the majority of the students brought their materials in order to do their classwork, (organizing). In some activities, students required help from their classmates, thus a collaborative work strategy was evidenced (co-operating with others), which allowed them to support themselves according to their skills.

Additionally, in contrast to the first intervention, it was interesting to realize that metacognitive language and metacognitive strategies use was expressed in students` descriptions. They now communicate ideas considering their previous knowledge (linking with previous knowledge), as it was exemplified in the section centering your learning in this second intervention; what makes difference with the first intervention, in which they appeared some vague concepts in relation to the first intervention topic. Likewise, learners considered important to be organized and they accomplished with required materials and the use of necessary tools as dictionaries. They also involved the word "strategy" in their vocabulary, to refer to specific actions they use in their learning process. At the same time, they give relevance to (paying attention), not only as an isolated action; but as an important strategy to make improvements in their learning process.

- Third intervention

Along the third intervention the researchers noticed that some metacognitive strategies were recurrently used. This fact was relevant for the study as it allowed the researchers to evidence how learners had been following some strategies use, which had provided them opportunities to advance and monitor their learning process.

This motivation in metacognitive strategies use, could be attributed to the design of the three units, which have generated in the learners, the habit of facing their learning process in a more organized and active form by following a planned sequence of connection to the topic, planning of goals and strategies and finally evaluating their process.

Other important aspect to be considered, was the concurrence of the planned objectives and the learning achievements. Thus, when students were asked to establish their objectives, they expressed them in terms of content and later when registered what they had learned, their descriptions were made in terms of the specific concepts they had learned on the covered topic. It means that a close relation between what they planned (What I want to learn) and the results they achieved (what I learned) is perceived in students' data.

Table 10. Concurrence in learning objectives and learning achievements

	What I want to learn	What I learned
St. 04 St. 09	Quiero aprender sus funciones, sus nombres en inglés etc. Quiero aprender cómo funciona el corazón y que es lo mortal para él.	Aprendí sus funciones y sus partes en inglés; y de las más importantes sus colores. Aprendí que hay que tener un corazón saludable y los pulmones saludables; o sea no fumar.
	Intervention 3. Week 1, November 4th.	**Intervention 3. Week 1, November 18th**

Note: Own source

Other students expressed their objectives in a broader way. However, when these students expressed their results they mentioned specifically a topic which centered their attention in a relevant way. The researchers attributed this situation to the fact that the planned activities such as the video and the identification of arteries and veins; allowed them to established a direct relation with their previous knowledge they had. (Overviewing and linking with known material), at the same time their learnings was related to a real context.

On the other hand, along the intervention it is relevant to highlight the performance carried out by student ten (St. 10), who since the beginning of the implementations, took into account the metacognitive strategies and was constant in their use during the process, as it could be evidenced

in the table 11, that describes the process through his answers along the KWHL chart. It is important to point out the clarity of his concepts and the security when expressing the previous knowledge (centering), at the same time he planned clear and relevant objectives (arranging and planning), and after planning he followed his strategies. Furthermore, for his evaluation process, he manifested to have performed specific action in which it is possible to identify metacognitive evidence, as paying attention, linking with known material and seeking for practice opportunities.

Table 11. Student ten`s metacognitive process

Strategy stage	Student`s descriptions
What I know (Centering)	El órgano principal es el corazón. Se maneja la sangre, hay arterias y venas. Es importante porque hay nutrientes.
What I want to learn (Planning)	Cuál es el proceso. Cómo funciona. Para qué sirve. Cómo sirve.
What strategies can I use (Planning)	Poniendo atención, haciendo las actividades, practicando y averiguando más.
What I learned (Evaluating)	Cómo circula la sangre. Arterias son rojas y venas son azules. Que son capilares.
How I learned (Evaluating)	Poniendo atención en clase, recordando mis clases, practicando y buscando en internet. .

Note. Own source

Moreover, the effective use of metacognitive strategies allowed him to achieve important results in his learning process. According to Chamot (1999) "By becoming aware of their strategies use, students can make active decisions to help them face learning challenges". (p.43). It means that when fostering metacognitive strategies, some changes could be generated within the classroom which allow learners to be conscious and active participants of their own processes.

Conclusions

In this section teachers-researchers will present the findings of the study stated from the data analysis. Initially, in the first paragraphs it will be explained to what extent the metacognitive strategies were fostered and at the same time the researchers will expose the final state of the metacognitive strategies use in the participant group. The second conclusion will refer to the advantages we observed on using CLIL to foster the metacognitive strategies. The third conclusion will explain the contribution of the backward design in the guiding process of metacognitive strategies.

After applying the three interventions focused on fostering the use of metacognitive language learning strategies. The researchers concluded that the metacognitive learning strategies presented a progressive development. In the case of *centering your learning* it was evident in the subcategories *overviewing and linking with known material and paying attention.* Thus, this improvement was observed according to the students` descriptions to the guiding questions. Talking about *overviewing and linking with known material, the* students evocated the known concepts in relation to each topic through the use of their prior knowledge activated by the generating question from KWHL chart. At this point, we stated that students made progress in terms of the way they wrote their previous knowledge starting from vague concepts to more elaborated ones, this fact was observed in their final descriptions quality that were related to the studied topic in a more precise way. The other metacognitive subcategory that learners constantly referred to was *paying attention*, this action acquired the value of strategy on the purpose of

learning more than the mere fact of following instructions within the classroom atmosphere. This fact was evident as learners were active in participation, in note taking and questioning during the learning activities.

Furthermore, as for the second strategy *arranging and planning your learning,* which is composed by several subcategories, we will refer to the ones that presented relevant modifications in the fostering process. The subcategory *finding out about language learning* was constantly applied by learners as they required the use of technological or conventional aids to perform their activities and tasks in relation to the language or communicative needs. Another subcategory within this strategy, in which it was evident some progressive development was: *setting goals and objectives*, as learners improved the quality of their objective descriptions, starting from some ones that exceeded the possibility of being performed to more reachable ones in terms of time and context. The same progressive advance occurred when learners planned their strategies to reach their goals; which initially were disproportionate in viability to other ones more accessible to their resources. In the same sense, teachers-researchers perceived that learners advanced progressively in self-confidence and autonomy as learners began planning their objectives requiring for peer or teachers support in the first intervention to be able to plan their strategies without demanding any help and using the time established for this purpose.

Finally, in the case of the last strategy, *evaluating your learning.* Researchers concluded that, it was the strategy with the lowest level in fostering. In relation to the subcategory *self-evaluation*, learners still keep in mind the idea of the teacher as the person who is in charge of providing them

feedback and also the grade as the only evaluating indicator of their learning process. However, in relation to the subcategory *self-monitoring based* on learners` participation and their approval searching, described in the researchers` notes, we could conclude that learners were on the path of reflecting about their errors, to be corrected and then continue in the learning process in order to improve their performances.

Along the three interventions the researchers concluded that CLIL content was more favorable for fostering the metacognitive strategies than if it were done by language instruction; as subject content became more significative. Therefore, the Biology content applied in the present study, generated motivation and expectancy in learners, as they had the possibility to recall their learnings, which were acquired based on their personal experience or with the academic school content in L1. This fact made their learning process more meaningful, allowing learners to link previous concepts to the proposed topics. This linking constituted a first step in the introspections about their own knowledge and opened the possibility to follow the subsequent metacognitive actions, like establishing their own learning goals and also planning the specific strategies to reach the personal established goals. At the same time, CLIL content served as a vehicle to learn the language, by studying the topics considered in each intervention. Students had the opportunity to relate certain technical vocabulary to L1, due to their similarity. This fact, contributed to learn the language by association, without requiring the study of the language itself. Additionally, the tasks carried out within the backward design framework allowed to integrate the communicative aspect referred in

CLIL, as the proposed tasks challenged the learners to use the language communicatively in oral and written form.

As interventions were performed by the organization and sequence of backward design theory; this methodological structure allowed the researchers to observe several advantages in the learning process; being one of them that backward design permitted the applicability of knowledge in close and meaningful contexts. This way, while learners performed the three final tasks, it was observed that learned content was transferred into the new contextualized situations. As a consequence, performing the final tasks by involving learnings into real and meaningful contexts, generated a higher level in learners` expectancies for preparing the task performance. Thus, along the performance of the final tasks learners applied the learned knowledge into different communicative contexts by providing different proposals or alternatives to the planned situations. For this process to be occurred the metacognitive work had an important role, as learners had to plan their final proposals by establishing what to do (their goals) and how to do it (their strategies) in order to arrange their processes of thinking about their learnings actions. At the same time, the backward design allowed the researchers to compose the different learning goals (content, language and metacognitive), in an integrated template. The backward design activities organization also had to be planned in a scaffolding sequence in order to achieve the final task. This way, the researchers organized the series of activities along the interventions, by taking into account that each of them constituted the pre requisite of the next; on the purpose of achieving the final task. In backward design an important aspect the researchers had to consider, was the use of the new understandings

in real and meaningful situations that could be useful in learners` lives. These advantages were possible due to the objectives planning process and the scaffolding structure of backward design.

Pedagogical implications

The connection to prior knowledge and the establishment of own goals and strategies contributed to the learners` engagement, helping them to be more active of their own learning process. It constituted a very different fact in our language teaching traditional practices, as students were involved in their own reflections about their process, different if the teachers are the ones who establish and propose their goals to the learners, fact that could demotivate students from the possibility of being more active participants of their learnings.

Another important circumstance that was implicit in the present study was the fact that metacognition is an individual and inner process which could be evident only on students` reflections about certain academical learning situations or activities. Thus, those individual insights were manifested based on the generating questions applied by the teachers-researchers along the process. Metacognition is a process that encases non-observable behaviors, which are hard to be observed at a glance; as it could be done when we are in the sense of enhancing any other competence or skill like vocabulary learning, pronunciation, oral interaction, reading, etc.

CLIL served as a methodology that showed the students there could be different strategies to learn English more than study the language in itself. This innovation in LFSS, was interesting as served as a model to be replied in other groups and by other teachers, who manifested their approval

to the project, which constituted the first connection to the Biology school content and made an initial step onto the interdisciplinary work within LFSS.

It is necessary for teachers to be willing to implement methodological approaches in their daily teaching practices. In addition to this, teachers and learners need to face new challenges in order to transform the learning process into a more conscious and dynamic one. This fact constitutes the most important reason, the researchers considered in the present study, when proposing an alternative to solve the problematic situation observed in learners at the moment of starting their secondary level.

Further research

Along the three CLIL interventions designed in the frame of the backward design theory, researchers realized all the possibilities and benefits this model provided to the learning process; mainly at the moment of planning the different learning goals and structuring the learning evidences by organizing a sequential activity plan. However, the researchers have considered it could be interesting to contrast these positive aspects to other possibilities that might be gained at the moment of implementing CLIL lessons, but by designing them through a different methodological approach as it could be Project Based approach, Task Based approach, or any other, that permits to develop the different aspects immersed in CLIL; as an interesting and challenging strategy for foreign language learning.

During the interventions, the two strategies about *evaluating your learning,* namely self-monitoring and self-evaluating presented certain level of weakness. This is why, researchers have considered this aspect requires further research, due to the fact that learners need to develop a higher level of awareness and this process demands enough time for its development.

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Appendixes

Appendix A: Letter to school principal

Bogotá, Agosto 18 de 2015

Licenciado
Marco Aurelio Saldaña
Rector Colegio La Floresta Sur

Respetado Señor,

La presente tiene como objeto solicitarle permiso para la implementación en el colegio del proyecto de investigación "Foster Metacognitive Learning Strategies into CLIL lessons with sixth graders" que es la propuesta planteada en la Maestría que actualmente curso con la Universidad Libre.

Para tal efecto, igualmente solicito el permiso de ingreso a la institución de mi compañero Julio Ernesto Martín Coy, quién hace parte del proyecto y quién también es docente adscrito a la Secretaría de Educación. Ambos estaremos llevando a cabo dicha implementación con los estudiantes del grado sexto (602), en el horario habitual de sus clases de inglés.

Agradezco la positiva respuesta a esta petición.

Atentamente
Dora Elena Correal Villamil
Docente del Área de Humanidades

Nº Radicado: 183 / 2015
Fecha de Radicado: 18/08/15
Hora de Recibido: 2:30 pm
No. Folios: 7
Area Gestión: Rectoria
Responsable: Mónica

Appendix B: Consent letter for students' parents

COLEGIO "LA FLORESTA SUR" I.E.D

*Resolución 1636 del 24 de mayo de 2002. * Resolución 329 del 7 de febrero de 2008
Registro ICFES 134429 *Resolución 2594 del 19 de marzo de 1997
NIT. 830.037.220-5 DANE 11100134049
Jornadas Mañana y Tarde Sedes A y B

ALCALDÍA MAYOR
DE BOGOTÁ D.C.

Bogotá, 18 agosto de 2015.

Señor(a)

María Gladys Salazar

Respetados Padres de Familia,

Reciban de mi parte y de la institución un cordial saludo.

Es de nuestro agrado comunicarles que el que Departamento de Humanidades del Colegio Floresta
Sur, particularmente la asignatura de Lengua Extranjera, iniciará un **proyecto de fortalecimiento
del proceso de aprendizaje del idioma inglés** en el grado 602. Este proyecto es liderado por la
docente Dora Elena Corral Villamil y el docente Julio Ernesto Martin Coy quien de la misma
manera se encuentra vinculado a la secretaria de Educación y se integrará durante las clases de
inglés a las actividades programadas.

Con el fin de iniciar el proceso, solicitamos muy cordialmente vincularse al proyecto, autorizando a
su acudido(a) para hacer parte del grupo de investigación, lo cual implica que durante la ejecución
del proyecto los estudiantes del curso, realizaran actividades ya sea en la institución o en la casa y
requerirán de su apoyo, acompañamiento y motivación. Así mismo, algunas de estas actividades
requeriran registro audio-visual que sólo tendrán fines pedagógicos. Recuerden que para lograr
éxito en nuestras labores académicas es necesario trabajar en un equipo coordinado de
Institución, padres y estudiantes.

Le damos gracias y le solicitamos responder a la pregunta que se encuentra a continuación
marcando con una X.

¿Está usted de acuerdo en apoyar el proyecto de fortalecimiento del proceso de aprendizaje de
idioma ingles en la Institución?

SI _X_   NO ____

Gracias por su atención y apoyo   *María Gladys*

Cordialmente.

MARCO AURELIO SALDAÑA   DORA ELENA CORREAL VILLAMIL
Rector   Docente Inglés

BOGOTÁ
HUMANA

No requiere sello según Decreto 2150 de 1995, supresión de tramites en la Administración Pública
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Sede B: Calle 2a. No. 68B-08 - Tel.: 446 2171 - Bogotá, D.C. - Colombia

Appendix C: Diagnostic questionnaire

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Marca con una "x" en la opción que consideres acorde con tu experiencia personal.
No hay respuestas correctas o incorrectas, solo responde con sinceridad.

Jose David Alfaro

	CUESTIONARIO		
	Descripción de la estrategia	**SI**	**NO**
1	¿Has relacionado los temas de estudio con los conocimientos que ya tenías sobre esos temas?	X	
2	¿Has logrado evitar las distracciones que desvían tu atención cuando abordas un tema de estudio?		X
3	¿Has logrado centrar tu atención más en escuchar que en hablar, cuando desarrollas tus temas de estudio?	X	
4	¿Has buscado apoyo para solucionar las dificultades relacionadas con el inglés, que se presentaron durante el desarrollo de los temas?	X	
5	¿Has preparado los implementos necesarios para hacer un trabajo adecuado tanto en la clase como en casa? **(cuaderno, diccionario, esferos, etc)**	X	
6	¿Has organizado en tu casa, un horario de trabajo adecuado, que te permita realizar tus trabajos escolares con calidad y puntualidad?		X
7	¿Has mejorado tu lugar de estudio en casa, para que tenga las condiciones adecuadas para realizar tus actividades? **(iluminación, temperatura, comodidad)**	X	
8	¿Te has planteado lo que quieres aprender y lo qué harías para lograrlo, al iniciar tus temas de estudio?	X	
9	¿Has logrado definir el propósito de las actividades que propone el (la) profesor(a) antes de empezar a realizarlas?		X
10	¿Has planeado la forma como desarrollarás las actividades y tareas propuestas por el (la)profesor(a)		X
11	¿Has buscado oportunidades para practicar los temas que vas aprendiendo en clase de inglés? **(con familiares, profesores, compañeros, etc)**	X	
12	¿Has hecho seguimiento de tu proceso de aprendizaje de los temas de la clase? **(Ben, mal, necesidad de mejorar, cambio de planes, etc)**	X	
13	¿Al finalizar tu proceso con un tema de estudio, has revisado que estuvo bien o mal y que necesitas mejorar o cambiar?		X

Appendix D: KWLH chart

Chart 1: Metacognitive Process plan

En la presente tabla, tendrás la oportunidad de registrar tu proceso de aprendizaje en relación con el tema y el inglés como lengua extranjera. Sigue las instrucciones de tu profesor para completar el cuadro.

K – W – L – H CHART

CIRCULATORY SYSTEM

Student: Erika Rodriguez

What I **know**	I Know that: 1. Pues Yo se que el sistema circulatorio es 2. muy importante. 3. 4.
What I **Want** to learn	I want to learn... 1. Pues Yo quiero aprende como funciona 2. el corazon y como hace para 3. llevar la sangre a todo el cuerpo 4. What strategy can I use 1. Unas de mis metas son buscar por 2. Internet y poner mucha atencion 3. 4.
What I **learned**	I learned that: 1. Aprendi muchos cosas del sistema 2. como que es muy importante 3. que hay que cuidarlo aprendi a 4. distinguir las venas y las arterias
How I learned	I learned by: Yo aprendi poniendo atencion interesandome en el tema y buscando en libro e internet

Adapted from Ogle, D. (1986)

Appendix E: Sample of language task planning chart

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Nombre: Erika Rodríguez

Este cuadro te ayudará a planear de manera organizada la tarea final del tema. Describe cada acción a realizar.

ASPECT	STRATEGIES
¿QUÉ VAS A HACER?	Pues voy hacer una cartelera expresando el cuidado de los pulmones y el corazón
¿CÓMO LO VAS A HACER?	Pues con cartulina y imagenes alucibos al tema
¿CÓMO LO HICISTE?	Pues yo lo hice con cartulina imagenes y escritura sobre lo que debiamos hacer y lo que no.

Appendix F: Survey

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Erika Rodríguez

Contesta la siguiente pregunta con honestidad de acuerdo a tu experiencia personal.

Al iniciar un nuevo tema de estudio en la clase de inglés, ¿qué estrategias o acciones realizas para **enfocar** tu aprendizaje?

Centrar. Mas que todo es acordarme de los conocimientos que se y los integro en con los nuevos conocimientos eso es como lo que siempre utilizo.

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Erika Rodríguez

Contesta honestamente a la siguiente pregunta de acuerdo a tu experiencia personal.

Cuando te enfrentas a un nuevo tema de estudio en la clase de inglés, ¿qué estrategias o acciones realizas para **planear** tu aprendizaje?

Comenzar a buscar cosas para cuando las veamos las entienda mejor. Planear y enfocarme en lo que quiero aprender

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Erika Rodríguez

Contesta honestamente a la siguiente pregunta de acuerdo a tu experiencia personal.

Al finalizar un tema de estudio en la clase de inglés, ¿qué estrategias o acciones realizas para **evaluar** tu aprendizaje?

Pues yo comienzo a repetir lo que aprendí o lo escribo en un cuaderno y miro que me quedo bien y que me quedo mal para mejorar

Appendix G: Field notes

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Chart 3: teacher´s Diary

TEACHER`S DIARY

Project:	Fostering Metacognitive Learning Strategies in CLIL Lesson	
Topic: Foods groups and nutrit	Activity: Characteristics of each food group	
Date:	Observing Aspect: Paying attention and to focus on listening	
Observations : (Events and Behaviors)		

- The group put attention to the activity, it is observed that they like to listen to English pronunciation.

→ The majority of the Ss participate without fear, several students raise their hands up, to carry out the exercise & listen to the instruction and teacher information and then, they stand up in the place corresponding to the food group that the characteristics are being said.

- From the Ss, who belongs to the sample, only two boys present confusion of term, the other eight are right in your location, in my opinion they focus their attention to what was said by the teacher.

- Teeachers ask to bring material for the next class.

Researcher:

Comments / Summary:

Appendix H: Intervention one planning design

FACULTAD DE EDUCACIÓN
MAESTRÍA EN EDUCACIÓN CON ÉNFASIS EN DIDÁCTICA DE LAS LENGUAS EXTRANJERAS
FOSTERING METACOGNITIVE LEARNING STRATEGIES IN CLIL LESSONS

IMPLEMENTATION TWO
FOOD GROUPS AND NUTRITION

STAGE 1 – DESIRED RESULTS		
Content Goals: · Identify the principal food groups. · Classify some foods into their corresponding food groups. · Discuss what foods have nutritional value and what do not have.	**Language Goals:** · Vocabulary about some foods. · Vocabulary related to features of food groups. · Expressions Do you like...? I like..., I don´t like..., my favorite food is...	**Metacognitive Goals:** · Provide students with tools to center, plan and evaluate their learning process. · Foster awareness about students' language learning process.
Understandings: · Students will understand why they should implement some food in their daily life. · Students will understand how to implement a healthy diet for a specific activity. · Students will understand the benefits or damage food could produce in the body	**Essential Questions:** · What is a balanced diet? · Why is it important to be healthy? · What role does nutrition play in staying healthy?	
Students will know: · Students will know how the food is classified. · Students will know characteristics of each food group. · Students will know nutritional value of some food.		
STAGE 2 – ASSESSMENT EVIDENCE		
Performance Task: · Student will make a diet for a two days outdoors activity, considering the nutritional value of food.	**Other evidence:** · The students will have a folder where they will keep their content activities. · Students will answer specific questions in relation to centering, planning and evaluating their learning process	

STAGE 3 – LEARNING PLAN	Time: 3 weeks

Activity 1	
Materials: Photocopies	Metacognitive Language Learning Strategies evidence
Introducing the topic: Objectives and purposes of the Topic will be presented to students.	· Students will answer a question in relation to the actions they perform to center their learning when starting a new topic. · The students will receive instructions to fill out the K-W-L-H CHART (adapted from Chamot's model) in the <u>first aspect</u>: What I know. · Researchers will fill out the field diary to observe student's performance in relation to the metacognitive process. <u>Specifically in relation to their connections to prior knowledge.</u>

Activity 2	
Materials: Memory game (14 pairs), sheets, dictionaries, colors	Metacognitive Language Learning Strategies evidence
Warm-up: · The students will be split in two groups and play a Memory Game. They will match the images from foods with their words. · Students will draw on a sheet of paper a food they like and a food they do not like and they will write their names. · Some students will come up one at a time in front of the group and talk about the food they draw, using some expressions as my favorite foods are…., I like …, I don't like…My favorite food is …	· Students will answer a question in relation to the actions they perform to planning and arranging their learning when facing a new topic · The students will fill out the KWLH Chart in <u>the second aspect</u> in order to know their learning objectives and how they plan to reach them. (Assist Students) · Researchers will fill out the field diary to observe student's performance in relation to the metacognitive process. Specifically in relation to <u>their connections to prior knowledge.</u> · Researchers will fill out the field diary to observe student's performance in relation to the metacognitive process. <u>Specifically, the way students plan objectives.</u>

Activity 3	
Materials: Photocopies, sheets of paper, pyramid poster, dictionaries	Metacognitive Language Learning Strategies evidence
· The students will write some of the foods they ate on the day of the lesson. (Breakfast / lunch/snacks). · Students will receive a copy with the food pyramid and some food drawings. Students will cut and classify the food according to the previous knowledge or how they believe can be classified. . The teacher will show the principal food groups and they will classify again these foods, taking into account the food pyramid classification.	· Researchers will fill out the field diary to observe student's performance in relation to the metacognitive process. <u>Specifically in relation to their connections to prior knowledge.</u>

· They will classify the foods they wrote at the beginning of the lesson deciding where each food belongs in the pyramid.	

Activity 4	
Materials: Paper tape, photocopies, Styrofoam dishes, publicity papers	**Metacognitive Language Learning Strategies evidence**
· A food pyramid will be drawn on the floor using paper tape. Description of characteristics of each food group will be read for the students to associate with the corresponding place. A student will stand up on the place he considers correct. · Students will receive a copy with information and images related to a healthy diet and the meals in a day. Students will work individually to understand the elements to be considered in a healthy diet and then they will make a diet for a day using pictures from publicity papers and Styrofoam dishes.	· Researchers will fill out the field diary to observe student´s performance in relation to the metacognitive process. (paying attention and to focus on listening) · Researchers will fill out the field diary to observe student´s performance in relation to the metacognitive process. Specifically, on planning for a language task.

Activity 5 FINAL TASK	
Materials: Sheets of paper,	**Metacognitive Language Learning Strategies evidence**
· Student will make a diet for a two days outdoors activity, considering the nutritional value of food, activities, weather, etc	· Students will plan the final task by answering the questions: What are you going to do and how are you going to do it" · Students will answer a question in relation to the actions they perform to evaluating their learning when finishing a new topic. · The students will fill out the KWLH Chart in the third and fourth aspects related to what the students learned and how they achieved it.

http://www.revistanova.org/index.php?option=com_content&view=article&id=46&Itemid=85 http://healthy-kids.com.au/food-nutrition/5-food-groups/

Appendix I: Intervention two planning design

FACULTAD DE EDUCACIÓN
MAESTRÍA EN EDUCACIÓN CON ÉNFASIS EN DIDÁCTICA DE LAS LENGUAS EXTRANJERAS
FOSTERING METACOGNITIVE LEARNING STRATEGIES IN CLIL LESSONS

IMPLEMENTATION TWO		
FOOD GROUPS AND NUTRITION		
STAGE 1 – DESIRED RESULTS		
Content Goals: • Identify the principal food groups. • Classify some foods into their corresponding food groups. • Discuss what foods have nutritional value and what do not have.	**Language Goals:** • Vocabulary about some foods. • Vocabulary related to features of food groups. • Expressions Do you like…? I like…, I don´t like…, my favorite food is…	**Metacognitive Goals:** • Provide students with tools to center, plan and evaluate their learning process. • Foster awareness about students' language learning process.
Understandings: • Students will understand why they should implement some food in their daily life. • Students will understand how to implement a healthy diet for a specific activity. • Students will understand the benefits or damage food could produce in the body		**Essential Questions:** • What is a balanced diet? • Why is it important to be healthy? • What role does nutrition play in staying healthy?
Students will know: • Students will know how the food is classified. • Students will know characteristics of each food group. • Students will know nutritional value of some food.		
STAGE 2 – ASSESSMENT EVIDENCE		
Performance Task: • Student will make a diet for a two days outdoors activity, considering the nutritional value of food.		**Other evidence:** • The students will have a folder where they will keep their content activities. • Students will answer specific questions in relation to centering, planning and evaluating their learning process
STAGE 3 – LEARNING PLAN	**Time: 3 weeks**	
Activity 1		
Materials: Photocopies	**Metacognitive Language Learning Strategies evidence**	

Introducing the topic: Objectives and purposes of the Topic will be presented to students.	• Students will answer a question in relation to the actions they perform to center their learning when starting a new topic. • The students will receive instructions to fill out the K-W-L-H CHART (adapted from Chamot`s model) in the <u>first aspect</u>: What I know. • Researchers will fill out the field diary to observe student´s performance in relation to the metacognitive process. **Specifically in relation to their connections to prior knowledge.**
Activity 2	
Materials: Memory game (14 pairs), sheets, dictionaries, colors	**Metacognitive Language Learning Strategies evidence**
Warm-up: • The students will be split in two groups and play a Memory Game. They will match the images from foods with their words. • Students will draw on a sheet of paper a food they like and a food they do not like and they will write their names. • Some students will come up one at a time in front of the group and talk about the food they draw, using some expressions as my favorite foods are…., I like …, I don´t like…My favorite food is …	• Students will answer a question in relation to the actions they perform to planning and arranging their learning when facing a new topic • The students will fill out the KWLH Chart in <u>the second aspect</u> in order to know their learning objectives and how they plan to reach them. (Assist Students) • Researchers will fill out the field diary to observe student´s performance in relation to the metacognitive process. Specifically in relation to **their connections to prior knowledge.** • Researchers will fill out the field diary to observe student´s performance in relation to the metacognitive process. **Specifically, the way students plan objectives**.
Activity 3	
Materials: Photocopies, sheets of paper, pyramid poster, dictionaries	**Metacognitive Language Learning Strategies evidence**
• The students will write some of the foods they ate on the day of the lesson. (Breakfast / lunch/snacks). • Students will receive a copy with the food pyramid and some food drawings. Students will cut and classify the food according to the	• Researchers will fill out the field diary to observe student´s performance in relation to the metacognitive process. **Specifically n relation to their connections to prior knowledge.**

previous knowledge or how they believe can be classified. The teacher will show the principal food groups and they will classify again these foods, taking into account the food pyramid classification. • They will classify the foods they wrote at the beginning of the lesson deciding where each food belongs in the pyramid.	

Activity 4	
Materials: Paper tape, photocopies, Styrofoam dishes, publicity papers	**Metacognitive Language Learning Strategies evidence**
• A food pyramid will be drawn on the floor using paper tape. Description of characteristics of each food group will be read for the students to associate with the corresponding place. A student will stand up on the place he considers correct. • Students will receive a copy with information and images related to a healthy diet and the meals in a day. Students will work individually to understand the elements to be considered in a healthy diet and then they will make a diet for a day using pictures from publicity papers and Styrofoam dishes.	• Researchers will fill out the field diary to observe student´s performance in relation to the metacognitive process. **(paying attention and to focus on listening)** • Researchers will fill out the field diary to observe student´s performance in relation to the metacognitive process. <u>Specifically, on planning for a language task.</u>

Activity 5 FINAL TASK	
Materials: Sheets of paper,	**Metacognitive Language Learning Strategies evidence**
• Student will make a diet for a two days outdoors activity, considering the nutritional value of food, activities, weather, etc	• Students will plan the final task by answering the questions: What are you going to do and how are you going to do it" • Students will answer a question in relation to the actions they perform to evaluating their learning when finishing a new topic. • The students will fill out the KWLH Chart in <u>the third and fourth aspects</u> related to what the students learned and how they achieved it.

http://www.revistanova.org/index.php?option=com_content&view=article&id=46&Itemid=85 **http://healthy-kids.com.au/food-nutrition/5-food-groups/**

Appendix J: Intervention three planning design

IMPLEMENTATION THREE		
CIRCULATORY SYSTEM		
STAGE 1 – DESIRED RESULTS		
Content Goals: - Identify the basic organs of the circulatory system. - Relate the circulatory system and the digestive system. - Recognize the importance of good habits for healthy heart.	**Language Goals:** - Vocabulary relate to circulation in human body - Describing processes by using simple present. - Using imperatives and simple present to prohibit.	**Metacognitive Goals:** - Provide students with tools to center, plan and evaluate their learning process. - Foster awareness about students' language learning process.
Understandings: - Students will understand the importance of goods habits in order to have healthy body. - Students will understand how nutrition contribute to blood circulation.	**Essential Questions:** - How does the blood get around the body? - Why is it important the blood in the human body? - How does the circulatory system relate with the digestive system?	
Students will know: - Students will know how the blood get around the body. - Students will know the functions of circulatory organs. - Students will know why the blood is important in the body.		
STAGE 2 – ASSESSMENT EVIDENCE		
Performance Task: The students will design a poster for a campaign, in which they will promote how to keep the lugs and heart healthy.	**Other evidence:** - The students will have a folder where they will keep their content activities. - Students will answer specific questions in relation to centering, planning and evaluating their learning process	
STAGE 3 – LEARNING PLAN	**Time: 3 weeks**	
Activity 1		
Materials: Photocopies	**Metacognitive Language Learning Strategies evidence**	

Introducing the topic: Objectives and purposes of the Topic will be presented to students.	• Students will answer a question in relation to the actions they perform to center their learning when starting a new topic. • The students will receive instructions to fill out the K-W-L-H CHART (adapted from Chamot`s model) in the <u>first aspect</u>: What I know. • Researchers will fill out the field diary to observe student´s performance in relation to the metacognitive process. **Specifically in relation to their connections to prior knowledge.**
Activity 2	
Materials: sheets of paper.	**Metacognitive Language Learning Strategies evidence**
Warm-up: • The teacher will hand out a scrap of paper to each student. The student will crumple it into a ball and hold it in his hand. • The teacher will watch the clock and count to 90 in one minute, while the students squeeze the paper ball each time a number is said by the teacher. • The students will share their opinions and ideas about this initial activity.	• Students will answer a question in relation to the actions they perform to planning and arranging their learning when facing a new topic • The students will fill out the KWLH Chart in <u>the second aspect</u> in order to know their learning objectives and how they plan to reach them. (Assist Students) • Researchers will fill out the field diary to observe student´s performance in relation to the metacognitive process. **Specifically, the way students plan objectives**.
Activity 3	
Materials: video, smart board, diagram, red and blue colors, board, markets	**Metacognitive Language Learning Strategies evidence**
• The students will watch a video about how the circulatory system works. • The students will have a circulatory system diagram and complete with the names of principals organs. They also will color it.	• Researchers will fill out the field diary to observe student´s performance in relation to the metacognitive process. **Specifically in relation to their connections to prior knowledge.**

• The teacher will show students where they can locate their pulse (neck or wrist). The students will register their pulse on a paper while sitting at their desks. Then, they will go out and run around the playground ones. When they come back to the classroom, they will register their pulses again. They will compare their heart beats before and after of the exercise. The class will reflect on why the heart is faster and why the exercise is important for the heart. • The teacher and students will brainstorm what other actions help our hearts keeping healthy. (exercise, healthy food, don´t smoke…)	
Activity 4	
Materials: Photocopies , sheets of paper, dictionaries	**Metacognitive Language Learning Strategies evidence**
• The students will read some information about Circulatory system, then, they will do some activities in relation to the text. • The students will work on a draft for their final task, mainly with respect to what they plan to write.	• Researchers will fill out the field diary to observe student´s performance in relation to the metacognitive process. Specifically, on planning for a language task. • Students will plan the final task by answering the questions: What are you going to do and how are you going to do it"
Activity 5 FINAL TASK	
Materials: billboard, markets, colors, pictures	**Metacognitive Language Learning Strategies evidence**
• The students will make a poster with the campaign to promote how to keep the lugs and heart healthy.	• Students will answer a question in relation to the actions they perform to evaluating their learning when finishing a new topic. • The students will fill out the KWLH Chart in the third and fourth aspects related to what the students learned and how they achieved it.