MASTER'S DEGREE IN CONTENT-INTEGRATED LEARNING IN
FOREIGN LANGUAGES (ENGLISH)

Cooperative learning through multiple intelligences in a mixed-age classroom

END OF MASTER'S DEGREE PROJECT

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<u>Summary</u>

This end of master's degree project is mixed research, whose main objective was to analyse the effects of cooperative work in a mixed-age classroom comprising preschool and primary education. Once the hypothesis of the study had been established, the study was carried out through the implementation of a learning situation that included the CLIL methodology in a classroom where the stages of schoolchildren from the first year of infant education to primary education were included, using in each of the sessions the eight main multiple intelligences, from the theory elaborated by Howard Gardner, respectively. The results showed that the group cohesion that existed before the research was increased and favoured the application of cooperative and collaborative work in the sessions, considering the language and study deficiencies that the pupils had had for some time. These facts gave rise to different proposals that may be useful in future research whose study coincides with the hypothesis of interest of this one and that, therefore, gives visibility to other school models, in which new effects and possible improvements to be incorporated into the CLIL approach itself are contemplated.

Keywords: cooperative work; collaborative work; multiple intelligences; mixed ages; CLIL methodology.

Abstract

     El presente Trabajo Fin de Máster es una investigación de corte mixta, cuyo objetivo principal consistió en analizar los efectos del trabajo cooperativo en un aula de edad mixta que comprende educación preescolar y primaria. Una vez planteada la hipótesis del estudio, se llevó a cabo el estudio mediante la puesta en práctica de una situación de aprendizaje que comprendió la metodología CLIL en un aula donde fueron comprendidas las etapas de escolares desde el primer curso de educación infantil hasta educación primaria, empleando en cada una de las sesiones las ocho principales inteligencias múltiples, de la teoría elaborada por Howard Gardner, de forma respectiva. Los resultados demostraron que la cohesión grupal que existía antes de la investigación se vio incrementada y favoreció a la aplicación del trabajo cooperativo y colaborativo en las sesiones, considerando las carencias idiomáticas y de estudio con las que contaba el alumnado desde hacía tiempo. Estos hechos dieron lugar a diferentes propuestas que pueden ser de utilidad en futuras investigaciones cuyo estudio coincida con la hipótesis de interés de ésta y que, por tanto, se dé visibilidad a otros modelos de escuela, en la que se contemplen nuevos efectos y posibles mejoras a incorporar al propio enfoque CLIL.

Palabras clave: trabajo cooperativo; trabajo colaborativo; inteligencias múltiples; edades mixtas; metodología CLIL.

1. Introduction

Cooperative work in pre-primary and primary education is a matter of special importance due to the cognitive and social benefits it can bring to pupils. Thanks to this approach, pupils are able to strike a balance between their own needs and empathy towards those of others, through the acquisition of social tools, as well as skills and knowledge that allow them to assimilate this purpose. In the case of the Collective of Rural Schools of Anaga, this method proves to be most effective, as well as demanding, since the teaching staff is faced with the arduous task of implementing this strategy in a classroom that differs because of the different levels that coexist in the classroom, which leads students to mature in a different way, recognising their essential role in the harmonious coexistence of the group, being responsible for themselves, as well as for their own classmates..

Due to this remarkable characteristic, it is not surprising that the different types of learning that are contemplated in the classroom should be considered in the first place. Thus, on the basis of this thinking, Howard Gardner's theory of multiple intelligences is a simile that is quite close to the reality of the classroom, due to its approach to the synergy of the eight main intelligences in the human brain, denoting that there are different ways of demonstrating intelligence, as well as finding different ways of learning, with which to encourage interest in the learning process itself and to fill in the educational gaps that can be found in a mixed classroom due to needs related to the lack of students in the centre.

In support of these aspects, the study addressed a first implementation of the CLIL methodology through cooperative and collaborative work, using multiple intelligences, and focused merely on its implementation, although it is true that some parts of the research took into account the defining characteristics of the group so that it could reduce its cognitive load and feel as comfortable as possible during the practical phase of the learning situation. This end of master's degree project is a research project aimed at students who studied at a school in the town of Taganana, which begins with a bibliographical review of the authorship involved in cooperative work and the sub-aspects that condition it. Next, a methodological design was proposed, in which a mixed study was conducted by means of the elaboration of a learning situation, the collection of information through a field diary and the distribution of a simple survey to the students under study. Through these instruments, an analysis of the information obtained was conducted, through which a series of results were obtained, which were discussed by means of the previously elaborated theoretical framework, which allowed us to reach a series of conclusions drawn from the study. Finally, the feasible teaching implications for the teaching practice were presented, as well as the limitations observed in the development of the

project and on which the proposed orientation is based, with a view to future research on the subject and a prospective for the future.

2. Theoretical framework

Group work, in its multiple forms, constitutes an effective strategy within the teaching-learning process for the improvement of the teaching-learning process, while promoting interaction among students. In this theoretical framework, insights will be provided into key aspects of working in pairs and groups, including how the roles and responsibilities of each member in a group, as well as communication strategies, decision-making processes and group cohesion play a fundamental role in the approach to student learning.

2.1. Working in pairs and in groups

Advances in pedagogical knowledge show that doing activities in pairs or in groups, at pre-primary and Primary School stages, has a number of significant benefits for the teaching-learning process.

Some of these include increasing time for oral input, modifying the pace of lessons, giving pupils back their leading role in education, integrating and intermingling with the whole group, providing them with a sense of success in achieving a team goal and teaching them to coordinate release with following instructions from the person in front who is not a member of the teaching staff. Some studies state that it is the opportunity of negotiating their knowledge that offers students a moment to modify their output "and force them to make it more comprehensible and more target-like." (Swain, 1985)

Further elaborating on the positive effects of teamwork in developing the learning process at a faster pace while respecting the assimilation times of individual learners, one study found that group work fostered a more positive atmosphere, since the dialogue was directed at a higher level context and related to the task, so that the task was monitored by the students themselves, with the aim of applying equal effort in "explaining their ideas to others and asking group members to make the same effort", which involved constructive explanation and rebuttal of arguments, as well as full and meaningful explanations. (Veldman et al., 2020)

Group work can be an effective method to engage students, promote active learning and develop critical thinking skills, and that of communication and decision making. Nevertheless, without a painstaking planning and facilitation, this could frustrate the student and the teacher

staff, thus seeming like a waste of time. In research, Webb-Williams (2021) found that children whose group work skills were not particularly good were exposed to vulnerability to social comparison. Moreover, in the same study, students who were assigned to groups with low teamwork skills "experienced more feelings of negativity as a result of their social comparisons than those in medium or high groups", and the latter group was dominant over the rest in the classroom.

2.1.1. Cooperative learning

The application of cooperative learning requires the constructive interaction of the skills belonging to each of the members of the same group. This methodology was developed by Johnson & and Johnson (1978), whose approach to this method, in addition to giving it its origin, was aimed at the achievement of a common goal and the gradual improvement of creative thinking skills. Among the skills developed through this approach are: positive interdependence, which consists of the positive balance between the independence of each of the members of the group and the result of the sum of their efforts; personal responsibility, since working in a group does not exempt but rather highlights the importance of all the roles occupied by the components; interpersonal and small-group skills, whereby students develop, within the practice of interaction, a set of social norms that are adapted to the principles of mutual respect and recognition of the work of others; and group processing; which "may be defined as a review of a group session to describe the member actions that were helpful and unhelpful and to decide what actions to continue or change. " (Johnson & and Johnson et al., 1990)

For the purpose of the correct application of cooperative learning, Jacobs (2016, pp.4-5) established a series of principles that are defined as follows:

- *Heterogeneous grouping:* cooperative groups are enriched with pupils' unique characteristics, "including sex, ethnicity, social class, religion, personality, age, language, proficiency, and diligence."
- *Collaborative skills:* students will need each other to compensate for their own scarcities while working together, such as the possession of them, the language to express the idea of it or the adequate application of the skill.
- *Group autonomy:* the focus of the groups' effort is prevented from being stuck on the teacher's constant approval and seeks the team's acknowledgement.

- *Simultaneous interaction:* while performing their work, one person at a time is speaking to the rest of the members. When applying this concept to the rest of the groups in a classroom, the person who is acting as a mere observer would be able to hear, at least, one quarter percent of the people speaking simultaneously. The example given by Jacobs is the next one: "40% students divided into 4 students per group = 10 students (1 per group) speaking at the same time." (2004, p.3)

- *Equal participation:* the authors excels that cooperative learning solves the problem of the dominance by one or two pupils within the group.

- *Individual accountability:* when working cooperatively, each member of the group is expected to present a good predisposition of knowledge-and-learn exchange.

- *Positive interdependence:* considered by the author as a core principle of cooperative learning by using the idiom "all for one, one for all," this concept refers to the pupils' inner acceptance of the benefits of helping each other for the sake of attaining the same finish line.

- *Cooperation and value:* connected to the previous principle, positive interdependence, this assumption presents the idea of cooperation as a value to be acquired while putting it into practice, in such a manner that children get to know what to learn and how to learn about cooperation as part of the knowledge to be assimilated.

Research has demonstrated that cooperative learning is an effective methodology for classroom inclusion. Reading an article by FECYTedu (2021), not only does it recognise students as different, but also exploits this pedagogically, so that pupils learn from each other, convert differences - even the ones related to skills - into something positive.

Cooperative learning is applied in the classroom through the organisation of pupils into groups to work in the attainment of shared goals. According to Azorín (2018) the aims of cooperative learning are as follows: "positive correlation of achievements; acquisition of shared goals; development of interaction processes; cooperation as a key element for learning; and answer to diversity."

This approach possesses many advantages. As children interact with each other, their abilities are met and their goals too, so they get the opportunity to unite forces to reach one same goal, increasing motivation and interaction among students, due to their collaboration, balancing working paces in a general self-overcoming environment. (Bećirović et al., 2022)

2.1.2. Collaborative learning

When it comes to the decision of maximising the results of working in groups, pupils might also select collaborative learning to take advantage of the fact that several tasks are performed in the same period of time so as to expedite the completion of a task. Collaborative learning is a teaching method in which pupils work together to achieve one same goal, so that this theory does not act on its own, but it is the result of a conjunction of theoretical approaches which excel the constructive value of socio-cognitive interaction and coordination among apprentices. (Roselli, 2011)

Within it, cooperative learning is included, as it comprises, as mentioned above, the union of team effort leading to a result that combines the skills and abilities of each of the members of the group. In this sense, Roselli proposes that this approach is of interest for the recovery of the "socio-cognitive link, coordination with others, co-participation in the conceptual construction and learning of community action". (2016, p.233).

Through the collaboration among the members of the group, knowledge is negotiated and constructed to build its own meaning, which is worth the whole teaching-learning process; and, even though the weight of the concept is placed in the acknowledgement of the value on the cognitive interaction among pairs, the teaching role is also involved in collaborative learning, thus creating a learning community, since the construction of knowledge in group is fostered "through communication and collaboration structures, while the teaching person is integrated as a member of the work team and has got a more team-oriented demeanour". (Chaves, 2023) Furthermore, the application of group techniques to promote the exchange and participation of every person in the building of shared cognition is displayed as an essential labour within this approach. Not only collaborative learning nourishes the wellnesses of working in groups, but also brings up the different interests that students produce when developing a topic through a project. In this way, students learn how to evaluate their own work and find their inner motivation to acquire new knowledge, and the teaching staff encourages pupils to make use of their own knowledge through learning strategies, at the same time they listen to others' opinions and make attempts to reach fair agreements, which will develop their critical and creative thinking and participating in open and significative dialogues. (Collazos, Guerrero y Vergara, 2006)

2.1.3. Differences between cooperative and collaborative learning:

Cooperative and collaborative learning emerged from Vygotsky's social-constructivism and Piaget's theory of proximal development, and both are active methodologies have their own relevance within teamwork (Sawyer & Obeid, 2017), nevertheless, their differences must be comprehended so as to permit its complete performance to be realised. When cooperating, students learn to help each other by working in an equitable way; meanwhile, members of that same group collaborate among them to reach one same aim. (Roschelle & Teasley, 1995)

In a mixed-age classroom, cooperative and collaborative learning are applied to offer mutual support during the lessons, and, when compensating education shortcomings, the contents assimilation is strengthened, due to the adaptation of students' explanations about a topic to their classmates' different comprehension levels regarding their age, cognitive skills, and context. Regarding the object of study in this research, which will be furtherly explained subsequently, "multigrade classes are formed out of necessity" (Veenman, 1995), in contrast to multi-age classes, which are formed on purpose for the sake of education aims, nevertheless, both demonstrate that the combination of grades experiment cognitive and non-cognitive positive effects that, in words of the same author (Veenman, 1996. p. 334), when they are claimed "they are usually based on the literature with regard to multi-age grouping".

Notwithstanding both approaches share a great deal in common, there are relevant and discernible differences. In general terms, within the practical perspective of the approach, cooperative learning believes in the benign of interdependence, where each member of the group is often responsible for a "fragment" of the final product (Johnson & Johnson, 2009). The division of labour is typically more systematically structured in cooperative learning, with clear, accountable roles assigned to each member of the group.

Conversely, collaborative learning tends to feature more fluid, shifting roles, with group members crossing boundaries between different areas of work, or co-deciding the best ways to collaborate on their joint project (Bereiter & Scardamalia, 2006). Goals and tasks may be more open-ended, and collaborative groups are, speaking, more 'self-managed' in terms of setting goals and establishing styles of interaction. In cooperative learning.

In cooperative learning, the teaching staff may also play a greater role in scaffolding activities by creating intentional groupings of students, or randomly assigning students to groups. Further scaffolds may also be necessary to ensure successful cooperation between group members,

such as directly teaching group interaction skills and reflection on those skills. (Aronson & Bridgeman, 1979).

2.1.4. Relevance of cooperative and collaborative learning for the learning experience.

Cooperative learning proposes many advantages and enhancements in our students' education, due to its allowance of continuous relationships among group members, as well as with the rest of the classmates, thus generating a group concept. Gillies (2016, p.42) asserts that the following skills are developed through "student's interactions during small group discussions:

- Actively listening to each other
- Sharing ideas and resources
- Commenting constructively on other's ideas
- Accepting responsibility for one's behaviours.
- Making decisions democratically"

Collaborative work comprises an interactive learning model which invites pupils to construct together, something that demands "combining efforts, talents and competences through a series of transactions that lets them achieve the established goals on a consensual basis." (Revelo et. al, 2018 p. 117)

The field of education is undergoing a phenomenon of methodological transition from the Arts class to the application of active methodologies and learning strategies that make students the main protagonist and active agent of their learning process. As a result of this transformation, education is beginning to pose new needs, related to one of the essential goals within education, which is to form a competent and responsible citizenry, in accordance with the principles of democracy. This objective contemplates the learning of cooperative and collaborative skills, in which students learn to manage and delegate the tasks to be performed according to the capacities contemplated both in large and small groups.

On the other hand, cooperative and collaborative learning implicitly achieves that students increase their confidence in their individual capacity, since it depends on it that the constructive interaction of teamwork shows its effectiveness both in the succession of the process and in the final result.

Farzaneh and Nejadansari (2014, p.291) substantiated in their research, as groups in their study were more prompt to offer help to others due to the fact that this altruist action provided them with confidence and critical thinking development throughout the learning process.

Within the teacher's role, teamwork within this group becomes a challenge that depends entirely on the teacher's attitude and skills to make the group work. It should be emphasised that cooperative and collaborative strategies should be worked on so that students know their role as soon as they enter the classroom, even more, if different ages are found in the same classroom, as most of them may know the basic rules of an education institution but others might well be assimilating them for the first time.

In order to accomplish this, putting the teaching-learning process into a context in which students are able to feel comfortable and identified with the content offered is transcendental to make it feasible for teachers to reach each pupil in the classroom, individually and as a group. Taking this into consideration, thereafter, situated cognition and how this aids to develop empathy at young ages will be submitted.

2.2. Situated cognition.

Within the concept of the learning situation, we must include situated cognition. This term encompasses the ways in which various pieces of information connected to children's interaction with the world, learner participation, monitoring of cognitive learning and manual learning interact to result in meaningful acquisition of knowledge. (Muñoz, 2021)

This, coupled with the fact that it is in a context that resonates with the learner's cognitive schema, as it alludes to their immediate environment, reduces their cognitive load, and makes use of the learners' brain plasticity to understand both simple and complicated, concrete, and abstract concepts and processes (Díaz, 2003). Similarly, it must be ensured that this knowledge remains in the students' minds for a long time, which is why teaching work must be done to help fix this knowledge in the short term through an automating schema of the information provided (working memory) so that it lasts in the long term. This is the responsibility of the germane load theory, which might refer to the student motivation towards learning rather than the task to be done itself (Debue & Van de Leemput, 2014)

Knowledge is acquired in a way that is intimate to the context in which it is carried out, which implies the active participation of the individual in his or her environment and in the activities to be carried out on a daily basis, thus allowing skills and knowledge to be assimilated in a more conscious way and giving them a meaning of their own that provides some intrinsic

motivation in learning. (Lave and Wenger, 1991) This is related to collaboration and peer interaction, as well as recognising that knowledge is plastic, in other words, it is constantly evolving and varies according to the changes people experience in their environment.

2.2.1. The development of empathy by the application of situated cognition

The development of situated learning also shows positive effects on learners' ability to put themselves in the place of the other, commonly known as the capacity for empathy.
Due to the fact that the learning process is in a context that learners can encounter quite often in their daily lives, it will not only be easier for them to see with some agility how to understand what they are being taught, but it will also help them to find, if not the answer, then the process by which to find the solution to their shortcomings. Regarding Leontiev's theory (1978), students' social activity performance is directly proportional to the "formation of consciousness", and Vigotsky excels the fact that "analysing the development of the child's activity… can elucidate the role of both the external conditions of their life and of the potentialities which they possess". (Vigotskii et al., 1998)

The empathy concept in education denotes a challenge for the student body, in the view of the fact that many abstract aspects are addressed within the same term, such as comprehending someone's feelings, notwithstanding their lack of correspondence with the own; anticipate the consequences of our actions; learn how to respond to a situation in which our actions have preceded an ending or another… among other alternatives. Students will be able to empathise with their peers, since some of them will find themselves in the position of demonstrating to the rest of the group a model of the final result and how they have managed to arrive at it, even if they have had difficulties in solving it for the first time.
In fact, in a study by Borja et al. (2020), it was found that, when the sample was asked to empathise, their level of attention in the sessions showed an increase, they were able to assess the intensity of emotions and, therefore, regulate the level of intensity they allowed themselves to feel. In fact, "scaffolding for developing future empathy training programs, may facilitate (inter)personal skills, resilience building, and well-being among providers and students" (Michalec & Hafferty, 2022)

Finally, empathy not only allows learners to put themselves in another person's shoes to understand how they feel about a particular situation, but can also be a way of acquiring the intrinsic motivation they need to open their minds and allow new knowledge to be incorporated

into their existing cognitive schema, either by modifying it or by creating new schemas from the information they are offered. This idea was already described by Krashen, through his theory of the affective filter, which was approached as an "internal processing system... that screens incoming language based on affective factors such as, the acquirer's motives, attitudes, and emotional states." (Rabbi, 2015, p. 4) The same theory mentions that the higher the affective filter, the lower the possibilities of learning, or rather, of accepting new types of learning; and, as long as it is low or open to being decreased, the students will be able to learn and assimilate new knowledge.

Therefore, this theory suggests to educators that, as long as students are in an environment conducive to their learning, which allows them to know the emotions that emerge when they carry out the teaching-learning process, while finding security in the place where they are taught and respecting their pace of assimilation can be an essential conditioner in the reasons why the student group applies empathy in different situations both educational and personal, not only to understand and learn from others, but also to look for a reason in everything they observe for the first time.

2.3. Zone of proximal development (ZDP)

The development of the lessons in a context where different ages are comprehended evidence a mutual enrichment, involving time among equals and how their diverse cognitive development experiences. The zone of proximal development (ZPD) term apprehends this idea adequately.

Developed by Lev Vigotsky (1978), it regards:

> "The distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem-solving under adult guidance, or in collaboration with more capable peers."

Therefore, it refers to the difference between what a child is able to perform on its own and what they can do, accompanied by an adult or another classmates' support. Hence, it is the breakthrough between the real development and the potential development of the child.

In order for students to go from needing some modelling in their teaching-learning process to the autonomy required for the demonstration of proficiency in the skills and abilities achieved, it is essential that they go through a process of scaffolding. This concept constitutes

one of the fundamental pillars of the zone of proximal development, since it focuses on the construction of new knowledge based on prior knowledge. (Ness, 2020) Thus, two types of zone of proximal development can be found: actual development level, which corresponds to what the child can do independently; and the potential development level, related to what the child can do when being provided with the sufficient support to feel both encouraged and fully informed about the steps they must perform in order to achieve the desired final result. (Mcleod, 2023)

Several means of application have been observed when analysing the effectiveness of the zone of proximal development in the classroom. One of them is by establishing tasks and games that connect with the middle point of a student's guided and autonomous capabilities. In order to achieve this the educator must know the zone of proximal development in which their pupils are encountered, rephrasing it, defining the work they know how to do on their own and how many of them implies an overcoming experience. Besides, when students use imitation as a modelling resource, they are confronted with their own limitations and are able to overcome them in the development of new skills, either by working in a team or by following the teacher's instructions. (Vigotsky, 1978, p. 88)

The best way to know the zone of proximal development of the student body is by conducting tasks and games that are closely related to their immediate environment, so that their level of ability on a particular subject can be evaluated. At the same time, questions can be asked to analyse the level of understanding and prior knowledge on the subject, in this way, it can be determined which are the appropriate tasks with respect to the level of development of the students. In the same way, initially, we can observe at what stage of cognitive development children are, something that Piaget's theory of development tries to explain, and we will develop it below.

2.3.1. Piaget's theory of cognitive development.

Regarding the definition of tasks with respect to the previous approach, the correspondence between the child's age and cognitive capacity must be considered, by means of a series of skills that the pupils should have achieved at that vital stage.
To this end, the psychologists Jean Piaget and Bärbel Inhelder developed (2015) a theory in which these stages of cognitive development are defined by levels, divided by age groups, so that the level of awareness of the pupils about themselves, their environment and their ability to adapt and learn in the face of change is in line.

Moreover, Piaget also referred to the cognition development as a process of cognition maturity, within Howard Gardner's multiple intelligences theory frame., which will be eluded further. In this approach, intelligence is depicted in relation to "the way human being's cognitive maturity is developed, where the age and ambient's influence" affect the way children perform their interaction with it. (Ramírez & Ramírez, 2018).

This perspective is related to the processes that pupils conduct from the moment they first enter the school environment. Through the different experiences, activities, and correction of errors that they experience throughout their schooling, students unconsciously transform their cognitive schemas, allowing them to make use of brain plasticity for educational purposes and personal maturity, thus acquiring knowledge, values, and attitudes of the society in which they are immersed.

Likewise, this assimilation seeks to respect the development of the students, focusing on, as Piaget stated in his theory, each of the age groups that show their own characteristics in their learning process, from the discovery and knowledge of themselves to the most complete interaction with their immediate environment, their peers and the unknown. In this sense, Saldarriaga et al. (2016), explain those stages as it has been depicted below:

- *Sensory motor (0-2 years):* The pre-primary begins to establish and develop reflexes and other responses that function as its first interactions with its reality. Piaget considered that the pre-primary makes small sketches of reflexes, which become small schemas, and eventually these develop into "mental processing that gives way to the development of intentional behaviour" that will help the child "form a mental representation of reality".

- *Concrete operations (2-11 years):* in which representational intelligence is worked on during two phases:

  - ***Pre-operational phase (2-7 years):*** the relevance of symbolism, through language, symbolic game, and drawing, in the child's development is manifested through the use of thought about elements of his reality without establishing a clear meaning.

  - ***Concrete operations (7-12 years):*** the child starts to be able to elaborate classifications following some categories, to share points of view with other people and starts to build logical schemes that still have some ambiguity.

  - ***Formal operations (12 years and older):*** formal intelligence and the maturation of the cognitive skills developed in the previous stages are established. This is

flexible and able to elaborate "hypotheses and reasoning about propositions without having objects in mind" (Saldarriaga et al., 2016, p. 133), thus the child already possesses a certain proficiency when it comes to investigating his or her environment using the scientific method.

2.3.2. ZPD: the influence of the age difference and the environment in the learning process

According to Vigotsky, the zone of proximal development is part of one of the key areas of learning, due to the emphasis on the relevance of interaction and collaboration in the learning process. The learner, while operating within the zone of proximal development, will be able to master new skills, starting from a first modelling to the demonstration of his autonomy in the use of it.

In this area, we find three aspects related to the zone of proximal development, in which a new concept is considered, and that is that it is not always necessary for a person trained to teach knowledge to be the learner's point of reference, but that the following situations can be found:

> "Generality assumption (i.e., applicable to learning all kinds of subject matter), assistance assumption (learning is dependent on interventions by a more competent other), and potential assumption (property of learner, which enables best and easiest learning)." (Kozulin et al, 2003, p.3)

In this case, the age of the learners is the determining factor for their readiness. Despite being of the same age, pupils can be distinguished by their zone of proximal development, in that their potential for cognitive development, as well as the level of knowledge they possess, varies depending on their ability and maturity to reason about the relationship between the components of that knowledge. Similarly, the environment plays a crucial role in the learning process, since the cultural, social, and historical aspects of the place they come from condition the processes by which this development takes place.

2.4. Multiple intelligences

The theory of multiple intelligences was devised by the American psychologist Howard Gardner (1983) as a counterweight to the paradigm of a single intelligence. According to Mora (2010, p.96), these are a conjunction of instructional strategies that belong to the teaching-learning process, and "involve a constant inter-relationship with other elements…

competencies to be reached, contents, context characteristics, instructional means and evaluation strategies."

In order to understand the theory of multiple intelligences, one must first understand the concept of intelligence. Sánchez (2021) considers that Gardner wanted to convey it as "a capacity... that can be developed with training" and, although he also understands the "genetic component of intellectual capacity... the environment is a key factor".

Gardner proposed that human life requires the development of several types of intelligence: *linguistic, logical-mathematical, spatial, musical, bodily-kinaesthetic, interpersonal, intrapersonal*, and *naturalistic*. Gardner and colleagues have also considered other intelligences, as the existential and pedagogical, nevertheless, this study will be focused on the first main eight intelligences:

- *Linguistic intelligence:* learning and mastering language in its different dimensions, oral and written, as well as understanding the receptive part of the language in order to achieve effective interaction with others.

- *Logical-mathematical intelligence:* recognition, study and implementation of the cognitive skills that teach how to find the logical relationship in "mental operations involving a formal system." (Sánchez, 2021, p.13)

- *Spatial intelligence:* "ability to recognise and manipulate patterns in spaces, both large and small" (Villamizar & Donoso, 2013, p.416)

- *Naturalistic intelligence:* used for the identification and study of "living beings in the natural environment, their characteristics and needs". (Sánchez, 2021, p.13)

- *Musical intelligence:* by developing, learners will be able to recognise different musical elements, as well as to detect them in different environments, not only musical ones.

- *Bodily-kinaesthetic intelligence:* through which you establish a deeper connection with your body and recognise and accept the movements you can make with it. (Sánchez, 2021, p.13)

- *Interpersonal intelligence:* With this intelligence, students implicitly develop the aforementioned empathy, with the intention of understanding the people around them, how they interact with them and with the environment and, on the other hand, they acquire the ways of acting in society.

- *Intrapersonal intelligence:* in contrast to interpersonal, deals with self-knowledge, which starts from the early childhood education stage. With it "we learn to examine everything that happens in our mind" (Sánchez, 2021, p.13), among which we can find those elements that define the way we perceive ourselves: emotions and how they

manifest themselves, the concept we have of our strengths and weaknesses, as well as the way we talk to and treat ourselves.

2.4.1. Benefits of cooperative learning in the context of multiple intelligences.

Multiple intelligences, in their own definition, contemplate the possibility of learning different contents from different points of view. This offers an opportunity for students to develop new skills from the intelligence they master best and, on the contrary, to get to know those that are exceedingly difficult for them to perform autonomously. According to Armstrong (2008), this is an advantage for educators, as it broadens the view of intelligence to all eight, as well as having the possibility of these being developed and worked on "together in complex ways", thus demonstrating that "there are many ways of being intelligent". A clear example of this is the classic division between "science" and "arts" degrees, which is stigmatising, as it segregates students in terms of their abilities and gives rise to the judgmental thinking that people in one branch of knowledge will never be able to develop what the other has mastered; To put it in a way that connects with the example, it seems that people who have chosen a degree in literature will never be able to handle scientific knowledge and, in the case of science, it is implied that their level of expression and understanding will not be sufficient to transfer their knowledge.

An education that intends to potentiate the maximal development of the students must look after the necessities of each and adapt the way of thinking and learning. Traditional teaching methods have been restricted to a way of concrete reasoning and learning based on the language, meanwhile, the theory of Multiple Intelligences works with the development of skills that are not only found in one intelligence, but can be used to achieve an understanding within a group paradigm, in which different capacities and ways of learning co-exist, which involves the assimilation of the new knowledge based on different activities that involve a diversity of cognitive processes implicated in common activities.

2.5. CLIL methodology.

CLIL stands for Content and Language Integrated Learning, and is an approach that focuses on learning content, skills, and abilities from a second language, usually the one taught at school as the main second language, so that the learning objectives required in both subjects are achieved from a cross-curricular perspective. This is why "students are not expected to be proficient in the new language before they begin their studies", but learning strategies are

applied using skills such as visual or auditory elements to make connections between language and subject-specific knowledge in the shared setting. (Attard et al. s.f., p.6) This approach was developed in 1994 by David March and Anne Maljers in an attempt to offer a different approach to "language immersion and content-based methodology". (Llorens et al., s.f.)

According to Attard et al. (s.f.), these are the main characteristics of the methodology: it is an approach in which both language fluency, not so much accuracy, and the content to be acquired through the language occupy the same place on the podium in terms of the importance given to each. This implies an effort on the part of the teaching staff, who must conduct conscious research into the information to be presented to the students, since their work will be crucial in adapting the knowledge to the students' learning capacity.

For instance, the following is one of the common processes to be carried out by the teaching staff in charge of transferring knowledge through this methodology: moderate use of Cognitive Academic Language Proficiency (CALP), i.e. the academic language required to teach new lessons, as well as to establish relationships between them and the students' previous knowledge, and their explanation through Basic Interpersonal Communication Skills (BICS), which is a more everyday language to facilitate the acquisition and understanding of the language. (Cummins, 1979, p.199). The transition from one type of language to another benefits learners insofar as the instructional part is simplified to give way to a better mastery of the content to be assimilated, so that learners become confident in handling terms and definitions of a certain complexity, as well as understanding complex or abstract processes and, equally, knowing how to explain them with the appropriate terminology.

2.5.1. Cooperative and collaborative learning in CLIL methodology.

When CLIL methodology is implemented, deducing the meaning of some vocabulary, as well as acquiring strategies for understanding how the same approach works, can be cognitively challenging when learning from an individual perspective. This is an aspect of particular interest when considering, "from the prism of collaborative work like peer-tutoring may bolster learner motivation towards CLIL". (Martí et al., 2022, p.1)

Studies confirm that learning through CLIL methodology in an environment where cooperative and collaborative work is a priority significantly increases the intrinsic motivation of students, due to the interaction they must conduct in order to conduct the proposed activities. In fact, regarding both the CLIL approach and the collaborative perspective, dual scaffolding (Castillo & Prat, 2022) must be provided. This means that both the language for interacting with the group, reminiscent of the use of BICS, and the language related to the subject to be

taught, related to CALP, must be transferred through different kinds of resources: audiovisual material, such as videos, interactive activities, books, encouraging critical thinking... in order to balance the use of the foreign language and the mother tongue in the acquisition of new content, as well as to establish a solid relationship with previous knowledge.

Similarly, classroom management strategies should be discussed, since mastering certain areas of communication in a foreign language within the parameters of the demands of pre-school and primary education also requires a certain command of the rules of politeness among pupils. It is worth highlighting the lack of information regarding the search for management methods related to the approach itself, so the theoretical framework of this section is redirected towards the subject of English itself, which is necessary for the knowledge of the foreign language base: in a study conducted by (Mahmoodi et al., 2022, p.40), he highlighted the need for teachers to obtain training to effectively improve classroom management methodologies, in addition to "provide an atmosphere in which students have the opportunities to speak, act and learn effectively".

To conclude this section, we must bear in mind that learning the contents through a foreign language can complicate in some way the acquisition of knowledge, so the age and cognitive capacities of the students must be considered when adapting our teaching discourse. This was already stated by Evnitskaya (2018, p. 9) when she mentioned that teaching staff should consider explicit guidance in their way of teaching CALP from the early grades and "adjusting it to the learners' cognitive and linguistic level".

2.5.2. Adequacy of multiple intelligences featured in CLIL methodology.

When students set out to learn a range of knowledge from a foreign language, they are taking advantage of different abilities which become apparent as the tasks set require them to master these skills in order to successfully complete them. This is why the teaching staff must promote "opportunities to acquire a specific content in different ways." (Casas, 2020, p.17)
It is in this section that multiple intelligences take on a major role in the development of skills, since it induces both teachers and students to trust that there is not just one way of learning, but several, through which difficulties are detected, recognised, analysed and overcome, as well as enhancing the skills already acquired in different contexts, as would be the case in the well-known learning situations.

Likewise, the application of multiple intelligences in CLIL methodology enhances the four characteristics proposed by this approach, known as the 4C-s framework, developed by Coyle, which "facilitates CLIL lessons planning and CLIL material design".

- *Content:* corresponds to the students' ability to understand and acquire new knowledge and skills.

- *Cognition:* related to the deepening of content, it links previous knowledge with new knowledge in a process of creating new schemas, so that students give their own meaning to the reality that is conveyed to them.

- *Communication:* the student group must conduct the appropriate processes of understanding the message and producing a new response to the content. In this way, teachers should promote "language needed to interact with classmates and teachers" and "language they use to explain and their learning in their own words, transferable to other languages".

- *Culture:* interculturality is present in the CLIL methodology, because it brings together cultures, customs, new ways of thinking... "also understood as citizenship behaviours, global   awareness   and   values".

(Gey, 2016, p.22).

Therefore, we could conclude that the inclusion of multiple intelligences proposes an integrative approach, in which both the curricular content and foreign languages reinforce what the students will learn, as well as developing language skills in both the mother tongue and the foreign language, as is proposed, once again, in a balanced way, in the methodology itself. Similarly, the use of contextualisation is reiterated for a better learning situation, as it proposes that students move from theory to practise through the use of what has been acquired in different activities that suggest possible events to occur in their reality, for which they must make use of the communicative skills of listening, speaking, reading and writing, both individually and collectively, which will allow the acquisition of manners when establishing points of connection between the knowledge they possess and the schemas to be modified, taking into account the knowledge of other people.

On the other hand, learning through teamwork, in other words, collaborative learning, has an impact on the development of the autonomy of the learners, through the accomplishment of these tasks, together with some principles of good communication, which are teamwork and empathy towards others and towards the different capacities of each one.

Finally, a connection is established between one's own culture and the foreign one, through learning the new language in different contexts and joining these differences with their similarities in their closest context, so that they are able to understand and accept the enrichment of living in other cultures, since it allows them to obtain a new vision of various realities without ignoring the events that condition the way of being of each one.

3. Methodological design

The present study addressed a research process aimed at the implementation of a learning situation in a classroom comprising different stages of pre-primary and primary education. The main objective of this work revolved around the analysis of the effects of co-operative work in a mixed-age classroom comprising pre-school and primary education.

The importance of the methodological design of the mixed research lies in the fact that the researcher focuses the study on a problem, situation, or theory that he/she wants to put into practice in a given context, in order to define the object of study. Starting from this premise, the general objectives will be determined and, if necessary, the specific ones with which, subsequently, it will be checked whether the results, as well as the information found, present a positive, negative, or contrastable correlation to a certain extent with what has been found. Likewise, the necessary tools will be developed to obtain this information and the necessary questions will be arrived at in order to go deeper into the research, which can be grouped according to categories or measured through the properties shown in the environment. (García, 2020)

The methodological design of the study refers to a hybrid analysis, since it contemplates aspects of both quantitative and qualitative analysis. This corresponds to a sequential exploratory character, which is divided into three stages: "qualitative data collection; construction of a quantitative instrument from the analysis of the qualitative data; and application of the instrument to a population to validate it" (Canese et al., 2020). Likewise, there was a commitment not to alter reality, as long as possible, while at the same time there was an expectation of sampling the contents of the information obtained (Lambert & Lambert, 2012).

The structure of the methodological design was composed of the following parts: firstly, the hypothesis of the study was determined, which proposed the classification of the student body by means of their level of acquisition of knowledge and skills, rather than age as a determining factor; in turn, the following section mentioned the objectives of the research and the method employed; and, in the section corresponding to the method, a description was made

of the characteristics of the centre under study, the students who are in it and the characteristics that make them an object of study of particular interest for the research.

3.1. Study hypothesis.

The stages of early childhood and primary education are, regardless of their compulsory nature, essential stages in the lives of pupils, given that they are the fundamental pillars of basic education in the East, at the time of making an appropriate transition from one stage to another, and one that respects their abilities. Tamayo (2014, p.131) confirmed this when she stated that "the transition between stages involves a change that implies... a growth at a socio-personal and educational level" in which it is necessary for students to "adapt to the context, to new spaces and times, to new classmates and adults".

In this sense, pupils begin to become aware of themselves in early childhood education, gradually discovering who they are and what they can do with their bodies, emotions, and other cognitive skills in a context of simple recognition, accompanied by their peers and the teaching staff. This stage, in the case of Spain, lasts for three years and, once they have finished, as the same author states, "by abandoning egocentric traits at around 6-7 years of age, the child can... empathise and begin to collaborate" with other peers, instead of competing for the adult's attention (Tamayo, 2014, p.132).

However, the school in which the pupils are placed may find itself in the position of joining different age groups in the same classroom. The division of pupils by levels, taking into consideration their age, corresponds to the need for them to go through their school stage, accompanied by their peers, so that they begin to interact with them by means of trial and error. This division arises, as mentioned above, for reasons of necessity that come from the centre or in order to try out a new form of grouping in order to observe the results obtained from it.

This implies a new form of cooperative model within the classroom, since not only are cognitive processes carried out within the stages of cognitive development appropriate to each age range, but a scenario is created in which the different processes interact with each other, generating a new learning environment with different results to those that could be found in a classroom in which the pupils are the same age. This entails not only the analysis of the knowledge, skills, and abilities that the student group must achieve, but also that teachers must make an exercise of understanding the different social and personal realities of each educational group in the classroom, with the aim of meeting the needs of the group as a whole.

Considering this context as a starting point, the research presented in this study focused on the way in which cooperative and collaborative work strategies are developed in a classroom with students with these characteristics.

3.2. General objective and specific objectives.

Based on the previously stated hypothesis, the aim of the study was to analyse the effects of co-operative work in a mixed-age classroom comprising pre-primary and primary education.

From this general objective, the following specific aims emerged:

- Encourage communication and collaboration between students, paying attention to the different cognitive stages that are understood in the classroom.
- Describe the social and emotional skills that the students needed to be able to conduct the sessions.
- Reflect on the application of multiple intelligences in a mixed-aged classroom.

3.3. Method

As for the method used in this research, a mixed research method was chosen, whose function is to provide more depth to the results obtained in an investigation when the quantity of the results is insufficient, so that involves both qualitative aspects (field diary) as it transforms the researcher into an active agent in the search for and collection of data, which were described by Peter (2015, p.2626) as "richly descriptive". This author also highlighted the role of the researcher in observing the conditioning factors of the study environment, such as the behaviour and testimonies of the participants and the environment in which they find themselves; as well as quantitative (surveys), that allow "massive applications and the gathering of information on a wide range of issues at once". (Casas et al., 2003). When it comes to analysing the type of analysis used to obtain the necessary information, it was found to be an action-participatory research, an experiential study is carried out, in which a possible alternative is put into practice in a context that requires it in order to bring about a change that achieves an understanding of the problem or situation that is being experienced, collect material that supports this reality, as well as its analysis and plan an action.. (Cornish et al., 2023). This methodology allows us to get to know the reality of an environment from a closer perspective, getting to know it through the experiences and reflections obtained by interacting with the people in that environment, both individually and collectively. (Sequera, 2016, p.226)

With regard to the steps considered when developing the mixed research, the "intersection of three areas: theoretical and conceptual underpinning, methodological strategies and practical applications of the findings" had to be considered. (Hamui, 2013, p.212)

The learning situation adapted to the CLIL methodology provided the opportunity to obtain the first results of its implementation in a multi-age classroom. Generally speaking, the teacher adapts the learning situations to the reality of the classroom, however, the decision taken was seen as a starting point to see what kind of response the learners would offer to this new scenario, to what extent they were able to comply with each of the sessions and what changes were made, as their performance in the classroom was observed.

This is followed by the process by which the sample was selected from among the schools comprising the target group, the description of the learning situation used and how it was conducted in the classroom, the ethical and methodological issues and, finally, the procedure for analysing the information.

3.4. Participants/sample

3.4.1. Collective of Rural Schools of Anaga:

The Rural Schools of Anaga are located in the rural park of the same name, on the island of Tenerife. They are distributed in the following districts: Las Carboneras (La Laguna), Taganana, Igueste de San Andrés, Roque Negro, Valleseco and Los Campitos (Santa Cruz de Tenerife). Similarly, the distribution of the schools in each of the aforementioned areas is as follows:

a) A first group formed by the Unitary Schools of Las Carboneras, Roque Negro, Taganana and Igueste de San Andrés, where the educational levels range from pre-primary Education from three years old to 6th year of Primary Education.

b) A second group consists of the school in Las Carboneras and Los Campitos, as incomplete centres, with two units; and Valleseco, with three units.

The massif has been isolated due to physical conditions and difficulties of communication and transport. This, together with the lack of employment opportunities, has led to the emigration of young people and an ageing population. However, in recent years some families have returned to the hamlets.

3.4.2. Centre selected as the object of study:

The centre on which the study focuses is the one located in Taganana, a hamlet in the Anaga Rural Park, in the north of Tenerife, which belongs to the municipality of Santa Cruz de Tenerife. It is made up of small valleys, ravines, cliffs, and rocks and, among other notable characteristics, it is separated from other inhabited centres, and the pupils' families work mostly in Santa Cruz, in the service sector, and have a basic level of education.

The building is relatively new, and its facilities are appropriate for teaching, nevertheless, Physical Education is conducted in a small courtyard or sometimes in a sports hall, which is required to to be reached by walking a certain distance. It should also be borne in mind that the centre in which the school is located has not always been the Taganana school. Previously, when a larger number of pupils attended the school, they attended classes in a larger school, which can be seen from the present school, located a couple of metres further up the mountain. There are also four restrooms: one for teachers, two for Primary pupils and one for pre-primary children. Moreover, there is a small scholar orchard behind the pre-primary classroom.

The school had eleven pupils until recently, as one of the group's members left in the middle of the school year, so now it is constituted by ten pupils, a group comprehended by ages from three-year-old children to sixth-graders, of which one of them has repeated course and another one has been diagnosed with Autism Spectrum Disorder (ASD).

With regards to the material in the classroom, there are two digital whiteboards, the one in the pupils' main classroom being more in line with the expectations of digital updating corresponding to the recent reality, while the other, which is in another classroom of less use, is older and requires the use of a projector to work; and tablets for each of the members of the pupils, so that they can give them multiple uses depending on their needs throughout the school year. It also has a shelf with a variety of reading material and, on another shelf, board games and other games according to the age of the pupils.

3.4.2. Instruments for collecting information

In terms of information collection, a *learning situation* was designed to gather information about the way that the learning process is developed in the classroom, as it includes items such as the presence of learning materials, the quality of teacher-student interactions, and the level of student engagement. This instrument can be completed by an observer during a classroom visit or by a teacher reflecting on their own teaching practices.

Each session considered each of the multiple intelligences, starting with linguistic intelligence, the most familiar to the pupils, knowing the subject from which they start in order to be able to defend themselves in learning the subject of knowledge of the environment in English.

The learning situation would end with a social task, which is an activity that would involve what the students have learnt in a single task, where intrapersonal intelligence would predominate. This is because, in group work, intrapersonal intelligence is often the weakest for some students, so that they can become dependent on the rest of the group members due to a lack of self-confidence, which can be particularly harmful for them, since the perception they would offer to others and, above all, to themselves is that they are not capable of doing anything without the guidance or instructions of a leader.

Secondly, data was collected through a *field diary,* in which the researcher depicted her observations about the teamwork and individual tasks performed. This diary showed the conclusions of what was observed in each session and highlighted elements of importance during the sessions, both on the behaviour of the pupils and on possible modifications of the learning situation in order to achieve a fair assessment of the children's performance. The reflections of this field diary will be reflected in the data analysis section, depicted later.

To conclude, *satisfaction surveys* (Annex I) were conducted according to the children's characteristics and necessities, in order for them to understand the questions that were requested. It was used to collect information from a group of individuals regarding the overall climate during the learning situation impartation period, the effectiveness of CLIL methodology in the group and the children's perceptions about the CLIL and multiple intelligences experience. One aspect to take into consideration is that, in order to safeguard the privacy of the students, taking into account that they are minors, the decision was taken to show the empty survey template and to take snapshots of some of the answers (Annex II) that were crucial for the research, as well as those questions where the answer was absent, in order to contrast the students' abilities with the expectations of the study.

3.4.4. Information collection procedure:

For the collection of information, a learning situation was developed in which each of the sessions addressed a multiple intelligence, so that the activities contemplated worked on each multiple intelligence as a different learning method per session. It was an interdisciplinary learning situation that combined the subjects of Knowledge of the Natural, Social and Cultural Environment with the subject of English, both taking into consideration theOrganic Law

3/2020, of 29 December, which amends Organic Law 2/2006, of 3 May, on Education, and was conducted over a period of eight sessions.

This learning situation was aimed at implementing the different multiple intelligences in order to reach the intrapersonal intelligence, essential within the social task, as it aimed to reinforce the students' self-concept through previously prepared teamwork.

The subject matter of all the units was related to the Canarian ecosystem, after considering that the pupils' language deficiencies could be solved by teaching a subject they already knew, so that the visual and, to a certain extent, auditory support would not be a difficult obstacle for them.

Finally, with regard to assessment, this focuses above all on the development of the concepts of teamwork and autonomous work in the students, through which they will try to acquire and reinforce aspects such as precision and a certain fluency in the visual and auditory recognition of vocabulary, knowing that the students had difficulties when reproducing English phonology or enunciating sentences in the same language both orally and in writing.

END OF THE MASTER'S DEGREE PROJECT – CLIL PLAN	PRIMARY EDUCATION

Trainee: Apsara Wadhwani Ramírez.

Academic year: 2022-2023

Location: Taganana

Level : Mixed	**Title:** Taganana detectives - The mystery of the Canarian ecosystem.
Area: Interdisciplinary - **Knowledge of the Natural, Social and Cultural Environment** - **English**	**Timetable:** 8 sessions

CLIL SOCIAL TASK	SPECIFIC COMPETENCE
Intrapersonal intelligence: This social task is designed for kids to comprehend that there many ways in which they can learn new content through different studying styles. Children must apply the knowledge acquired during the unit by creating a pamphlet that promotes the protection and relevance of ecosystems and their care, related to the theme season of summer that will be used to motivate students and encourage them to reflect on their personal learning process while developing the task. To conclude with its elaboration, children must share their final product, what they liked the most about the process and what	**ENGLISH CRITERION:** 3.- **Interact with other people by using daily-based expressions, resorting cooperative strategies, and employing analogic and digital resources to responded immediate needs of their interest in respectful communicative exchanges towards politeness norms.** **CLIL SUBJECT CRITERION** (Knowledge of the Natural, Social and Cultural Environment) **5. Identify the characteristics of the different elements or systems of the natural, social, and cultural environment, analysing their organization and properties**

intelligence they would apply to study subjects or any knowledge that is hard to them.	**and establishing relationships between them, to recognize the value of the cultural and natural heritage, to conserve it, to enhance it and to take actions for its responsible use.** ## KEY KNOWLEDGES: **2. Life on our planet** 2.1. Identify the basic needs of living things, including humans, and differentiate them from inert objects. 2.2. Identification of the adaptations of living things, including humans, to their habitat, conceived as the place where they meet their needs. 2.3. Classification and identification of living beings, including humans, according to their observable characteristics in order to recognise and represent the diversity of the human body and of the most representative animal and plant species of the biodiversity of the Canary Islands archipelago. 2.4. Knowledge of the relationships between humans, animals, and plants. 2.5. Promotion of care and respect for living beings and the environment in which they live, avoiding the degradation of the soil, air, or water in our islands.

NEW UNIT CONTENT	REVISION – CONTENT
1. **Language -Functional content:** - Formulating and responding questions - To make predictions - To express reason, purpose, and intention - Utilising analogic and digital devices for the sake of communication 2. **CLIL Subject** **Vocabulary:** fauna, flora, invasive species, soil, ecosystem, nutrition, interaction and reproduction, herbivores, carnivores and omnivores, roots, stems, leaves, endemic, beach, forest, mountains, clouds, environment, humid environment, dry environment. **Content:** - The plant kingdom - The animal kingdom - Nutrition of plants and animals - Interaction of plants and animals - Reproduction of plants and animals - Flora and fauna in the Canary Islands o Flora and fauna in Anaga - Caring about the Canarian ecosystems	1. **Language -Functional content** - **Linguistic content (Functions):** - Salute, farewelling, introducing themselves. - Participating in short dialogues - Acquiring lexis of interest **Vocabulary:** flower, plant, animal, cat, dog, fish, sun, rain, wind, water. **Structures:** - What's the weather like? - The place where fauna and flora live together is the ecosystem. - They are endemic, because they just live in the Canary Islands. - Any species that is endemic only live in the place they are in the present. - **Nutrition:** Animals and plants create energy from what they eat. - **Interaction:** Animals and plants meet with other species and collaborate to save the ecosystem. - **Reproduction:** The way that animals and plants have "children" to continue existing in the ecosystem. 2. **CLIL Subject** **Content:** The content to be acquired will be new for some pupils and reviewed by the eldest. For the sake of their learning process and since these students require short-termed repetitions of the content to be adequately acquired, the CLIL subject knowledge will entirely be considered as new.

KEY COMPETENCES

- **Digital competence:** Digital competence will play a crucial role in students' learning, as it will serve as an audio-visual support and source of information, the use of which will be guided by the teaching staff, to bring students closer to the reality of caring for the Canarian ecosystem, bringing it closer to the classroom.
- **Social and civic competence:** In a mixed classroom, students must trust in the rest of their classmates and in themselves to work cooperatively and collaboratively, so that satisfactory results are obtained as a result of this joint work, as well as enjoying each stage of the learning process.
- **Linguistic competence:** Revisiting the issue of the students' foreign language deficiencies, they will be able to overcome their own cognitive burden of learning an unfamiliar language through a subject of interest, which is a pragmatic approach from the student's perspective.
- **Learning to learn:** Students will find a practical sense of what they will learn, since they are in an environment with the endemic characteristics of Canarian nature, which will be most meaningful to them.
- **Cultural awareness and expression:** students will use information about the Canarian ecosystem (fauna, flora, interaction between species, invasive species, care of the environment), which will also be used for the production of the pamphlet, thus raising awareness of the importance of caring for the natural environment of the Canary Islands.
- **Sense of initiative and entrepreneurship:** The use of multiple intelligences as an introduction to new ways of learning will foster students' critical thinking, as well as their motivation to learn about new topics in an autonomous way, which requires some planning of learning through phases or the choice of the learning style that best suits their personal characteristics.

COGNITION

- Analyse the flora and fauna of the Canary Islands

- To analyse the interaction between species and its consequences on their reproduction.
- Raise awareness of the importance of caring for the surrounding natural environment.
- Evaluate which species are endemic and which are not.
- To understand the reasons why the Canarian ecosystem should be preserved.

CULTURE
- The flora and fauna of the Canary Islands - The flora and fauna of Anaga - Invasive species: origin and means by which they reach the islands - Impact of invasive species on endemic species - Damage done by humans to the Canarian ecosystem - Means of prevention against damage to the Canarian ecosystem

ASSUMPTIONS	ANTICIPATED PROBLEMS
o **Verb tenses:** simple present, present continuous. o **Cardinal and ordinal numbers:** from 1 to 100. o **Vocabulary about people, the city, animals, hobbies, food, clothes.** o **Poor writing skills**: regarding information planning, arrangement of the text in the medium offered (paper or tablet), order and sequence of the content of the message, coherence, and cohesion.	These children are used to perceive constant changes in the teaching staff that looks after their education. Therefore, this situation, along with their social and family characteristics, generates a reality nurtured by high ladders, in which any sign of advance create the path to polish the rough edges of a lacking apprenticeship.

	- **Some of the aspects that learners may find difficult are the following:**
	o Understanding words and expressions in English without visual aids or their written version.
	o Connecting previous knowledge with the new one.
	o Empathising and getting motivated with the comprehension and further solution of a problem which does not correlate to theirs in a proximate way.
	o Their willing to learn might well crush with their centres of interest. The theme of the learning situation must be connected to reason that is directly relevant to them, for instance, by connecting the reality of the beach to what is happening in the rural area.
	o Exercises as they are known must not be displayed. In substitution of that, any time pupils reiterate an activity will be considered as exercise, as it will reduce the cognitive load and create a relaxed and dynamic environment to learn.

EVALUATION CRITERIA - CONTENT UNITS

ENGLISH	CLIL SUBJECT
CRITERION: • 3.1. Participate, in a progressive autonomous way, in interactive situations of brief and simple information exchanges through written and oral texts, about daily-based topics of personal relevance and proximate to their experience and context, via both analogic and digital devices, facing, among others, challenges that imply the generation of ideas and the search for creative and original answers, in order to respond to concrete and respectful communicative purposes, and to favour cooperative attitudes and an ethical and effective use of language. • 3.2. Select and use, in a cooperative and progressively autonomous manner in everyday interaction contexts, inductive and deductive methods, as well as basic strategies, such as repetition, slow rhythm or non-verbal language, to respond to communicative purposes that allow them to expand their individual linguistic repertoire. **OPERATIVE DESCRIPTORS. OUTPUT PROFILE** CCL1, CCL5, CP1, CP2, STEM1, CD3, CPSAA3, CC3, CE1, CE3	**CRITERION:** • 5.1. Recognise and appreciate the characteristics, organisation, and properties of the elements of the natural, social, and cultural environment that are most representative of the biodiversity of the Canary Islands archipelago, through research and guided search of simple information on the Internet, using the appropriate tools and processes in a guided way in order to transmit and share knowledge on the subject. • 5.2. Recognise simple and direct connections between different elements of the natural, social, and cultural environment of the Canary Islands through observation, manipulation, and experimentation. • 5.3. Show and promote attitudes of respect for cultural and natural heritage, especially that of the Canary Islands, recognising its diversity and its nature as a common good in order to contribute to its conservation and safeguarding. **OPERATIVE DESCRIPTORS. OUTPUT PROFILE** • CCL3, STEM1, STEM2, STEM4, STEM5, CD1, CC4, CE1, CCEC1

LESSON: 1

TIMING	PROCEDURE	I DO IT BECAUSE ...	AIDS AND MATERIALS
50 minutes	**Linguistic intelligence:** Pupils will be presented with the topic through a talk and fostering dialogue among them. Through the continuous use of visual aids, different types, species, and their relationship with the environment will be explained. The lesson will be finished by maintaining a conversation with the new terms learned. As they lack the competence enough to develop a proper conversation, we must coordinate the subject imparted with the English language, as they will be learning both contents at the same time in a respectful and fun way.	Promoting language through a subject of interest allows for its use and enrichment from a perspective that is friendly to the difficulties presented by these pupils, as they will focus on fluency without neglecting precision, which coincides with one of the principles of the CLIL approach.	- **Table in which kids can demonstrate the conversation practice phase they are:** modelling, some help, almost no help, made it! - **Digital board** - **Tablets** - **Pencil case materials** - **Blank sheets or notebooks.**

LESSON: 2

TIMING	PROCEDURE	I DO IT BECAUSE ...	AIDS AND MATERIALS

50 minutes	**Logical-Matematical:** Children will play the game Guess who. For this, they will be presented with different animals and their characteristics, plus whether their invasive or not, and we will work on their reading, together with the affirmative and negative structure in English. Its teaching should be oral and written, adjusting to its function of language mastery and not academic completion, that is, to work it so that students are able to carry out a simple conversation without leaving aside the writing and vice versa. Once this is achieved, the game will be played through questions of their choice.	The use of the game for the development of logical-mathematical intelligence puts into context the elaboration of connections between previous and new knowledge, as well as the communicative function of language. The aim is to establish a meaningful schema of the knowledge acquired with the foreign language, which is a promising and exciting challenge for the students, the difficulty of which lies only in the game's model of explanation. .	• Register of how students manage to coordinate with each other in each part of the session**.** • Visual aids for the explanation placed in an evident sequence. • Checklist of how many animals they have guessed.

LESSON: 3

TIMING	PROCEDURE	I DO IT BECAUSE ...	AIDS AND MATERIALS

TIMING	PROCEDURE	I DO IT BECAUSE ...	AIDS AND MATERIALS
50 minutes	Visual-Spatial: Children will learn about various ecosystems. They will be shown photographs and videos and will be encouraged to imagine what it would be like to live with them by creating a drawing or models representing the ecosystems studied.

Afterwards, they will carry out an activity in which, using a meter, they will compare their own height with that of some animals, and they will have to record the data on a form that they will keep as part of their research. | This intelligence will achieve a more meaningful connection between the pupils and their immediate environment, not only in terms of knowledge of what exists in it, but especially coincides with the criteria "Self-discovery" and "Discovery of the Environment" in Infant Education. Thanks to this, Primary pupils will rediscover the relevance of appreciating the more concrete elements and the natural habitat in general terms. | Interactive video about animals. Meter List of the objects with which the animals have been measured. If any of the flora species can be found in the environment of the centre, they will be taken as a reference for the measurement. Examples: *rabo de gato, siempreviva de Anaga, corazoncillo de Anaga.* |

LESSON: 4

TIMING	PROCEDURE	I DO IT BECAUSE ...	AIDS AND MATERIALS

| 50 minutes | **Musical:** Music and sounds from the different ecosystems will be utilised to help them picture the sounds that pupils can find.

Here, the Pre-school students will be the protagonists. They will have to imitate the sounds of the animals with their voice, while the primary students will have to imitate the other sounds of the ecosystem with their voice, body or elements of the classroom that are as similar as possible. | Music is an easy element to assimilate in the long term, as it has a sequence of catchy rhythms that provide meaning to what is being learned. Coupling this with learning about the animals that coexist in the same habitat, it will be easy for students to understand how they live, appreciate their differences and their role in the life cycle of flora and fauna.
Moreover, the applied song works on numbering and "forward" and "back" directions, which further encourages the use of language. | - Annotations on the elements with which they have managed to resemble the sounds of the animals.

- Song: "Walking in the jungle" by Super Simple Songs. |

LESSON: 5

TIMING	PROCEDURE	I DO IT BECAUSE ...	AIDS AND MATERIALS
50 minutes	**Bodily-kinesthetic:** Dances to learn about some of the processes that are performed within some ecosystems.	On a more personal level, the pupils stand out for their enjoyment of movement, not only because of the stage of life they are in, but also because of the few opportunities they have to move around the classroom.	**Rubric:** students should have used the whole body to demonstrate how the processes are carried out.

	Together, they will have to find a way to learn the processes of nutrition, relationship, and reproduction. Here, the importance of the association movement - long term memory is highlighted. Musical intelligence will be added to this, since they will have to associate each movement with a rhythm.	Throughout the course, they have shown great interest in everything related to physical activity, so demonstrating through movement the succession of events that occur in each process can serve to reduce, once again, the cognitive load and facilitate the association of concepts with each part of the process, as would be done with a choreographed dance.	

LESSON: 6

TIMING	PROCEDURE	I DO IT BECAUSE ...	AIDS AND MATERIALS

TIMING	PROCEDURE	I DO IT BECAUSE ...	AIDS AND MATERIALS
50 minutes	**Interpersonal:** In pairs, they will work to solve different situations about the ecosystems to generate a debate, in which they will reflect on them through oral communication and active listening.	Here, pupils' protagonism will be highlighted. By no longer perceiving the lesson as what it is but as a game, they will be involved in an atmosphere conducive to the discussion of issues through complete arguments, as well as reflecting on the need to respect certain forms which will lead them to improve their ability to listen to the opinion and contribution of others, especially for Pre-school and the younger grades of Primary Education, who will take a cue from the older children to keep up with them.	- Llist of requirements for a complete and adequate response. - Señales

LESSON: 7

TIMING	PROCEDURE	I DO IT BECAUSE ...	AIDS AND MATERIALS
50 minutes	**Intrapersonal:** Development of the Social Task.	The sense of belonging to a group is clearly seen in this class, but confidence in individual abilities is a factor that needs to be worked on. The cooperative work roles denote the individual responsibilities in each group, which will encourage students to become more aware of the importance of their role in the work and of the shortcomings they have for its almost immediate resolution. This social task is not so much about the pamphlet as it is an exercise in individual reflection and self-appraisal, increasing	- Schemes of what they have learned for them to remember. - Pamphlet model

		self-esteem and improving self-perception about their ability to learn and face new challenges with and without their peers and role models in the classroom.	

LESSON: 8

TIMING	PROCEDURE	I DO IT BECAUSE ...	AIDS AND MATERIALS
50 minutes	**Development of the assessment session with kids in a relaxed environment.** **1. Self-assessment:** This involves the assessment of students by the teacher, with the aim of measuring their academic performance. To approach it in a fun way, we propose the "Treasure Hunt" method. In this case, the teacher will prepare a series of questions, activities and enigmas related to the topics seen in class. With the help of class material and digital tools, the students will search for the answers and present them through a presentation, a video, a game, etc. The teacher will evaluate not	When assessment is carried out, it is often forgotten that the aim is to check that pupils are able to handle what they have learned in different contexts, and furthermore, these contexts need not be far removed from the way they have learned them. Even though we are assessing students, they are still learning, so testing their learning in a close context, in play and dynamism, will allow children to show what they really know without the pressure of knowing that we are assessing them. In addition, they will reaffirm their own learning due to the creation of the game, since they have to review, repeatedly, that what they are going to capture in the game is correct.	- Questions, activities, and enigmas - Digital board - Sketch, in which the student shows how they would use one of the intelligences to study. - Sketch, timing, and implementation of the game made by the students.

| | only the content of the answers, but also the originality and effort made.

2. Co-evaluation: As for the co-assessment, we will call it "study session", dedicated to the compensation of the deficiency that receives this name. In this case, we will put a student who knows the subject well and another one who does not master it so well, and we will group the students by abilities, forgetting their ages a little bit. We will tell them that they have to "study for an exam", which is not true, but we will use this phrase to instill a certain discipline in them. This is because motivation, in these cases, disappears easily, so we must resort to something that induces them to check the quality of their partner's learning continuously.

3. Self-assessment: This method consists of the student evaluating his performance and his learning process. To make it more playful and collaborative, we propose the "Let's learn together" method. Students will be divided into pairs or trios and will have to design an activity or game related to the topics seen in class. This activity will be displayed in the classroom and will be carried out by all the students. At the end of the activity, each student will evaluate their own performance in the task, their ability to work as a team and their participation during the game. They will also have to evaluate their peers, highlighting the positive and giving constructive advice. | | |

Evaluative aspects: Content	Insuficient (1-4)	Adequate (5-6)	Remarkable (7-8)	Outstanding (9-10)
5.1. Recognise and appreciate the characteristics, organisation, and properties of the elements of the natural, social, and cultural environment that are most representative of the biodiversity of the Canary Islands archipelago, through research and guided search of simple information on the Internet, using the appropriate tools and processes in a guided way in order to transmit and share knowledge on the subject.	Pupils **barely** recognise and appreciate the characteristics, organisation, and properties of the elements of the natural, social, and cultural environment that are most representative of the biodiversity of the Canary Islands archipelago, through research and guided search of simple information on the Internet, using the appropriate tools and processes in a guided way in order to transmit and share knowledge on the subject.	Pupils recognise and appreciate **few introduced** characteristics**,** organisation, and properties of the elements of the natural, social, and cultural environment that are most representative of the biodiversity of the Canary Islands archipelago, through research and guided search of simple information on the Internet, using the appropriate tools and processes in a guided way in order to transmit and share knowledge on the subject.	Pupils recognise and appreciate **some of the introduced** characteristics, organisation, and properties of the elements of the natural, social, and cultural environment that are most representative of the biodiversity of the Canary Islands archipelago, through research and guided search of simple information on the Internet, using the appropriate tools and processes in a guided way in order to transmit and share knowledge on the subject.	Pupils recognise and appreciate **all the presented** characteristics, organisation, and properties of the elements of the natural, social, and cultural environment that are most representative of the biodiversity of the Canary Islands archipelago, through research and guided search of simple information on the Internet, using the appropriate tools and processes in a guided way in order to transmit and share knowledge on the subject.

Evaluative aspects: Language	Insuficient (1-4)	Adequate (5-6)	Remarkable (7-8)	Outstanding (9-10)
3.1. Participate, in a progressive autonomous way, in interactive situations of brief and simple information exchanges through written and oral texts, about daily-based topics of personal relevance and proximate to their experience and context, via both analogic and digital devices, facing, among others, challenges that imply the generation of ideas and the search for creative and original answers, in order to respond to concrete and respectful communicative purposes, and to favour cooperative attitudes and an ethical and effective use of language.	Pupils participate, **by modelling,** in interactive situations of brief and simple information exchanges through written and oral texts, about daily-based topics of personal relevance and proximate to their experience and context, via both analogic and digital devices, facing, among others, challenges that imply the generation of ideas and the search for creative and original answers, in order to respond to concrete and respectful communicative purposes, and to favour cooperative attitudes and an ethical and effective use of language.	Pupils participate with **much reinforcement** in interactive situations of brief and simple information exchanges through written and oral texts, about daily-based topics of personal relevance and proximate to their experience and context, via both analogic and digital devices, facing, among others, challenges that imply the generation of ideas and the search for creative and original answers, in order to respond to concrete and respectful communicative purposes, and to favour cooperative attitudes and an ethical and effective use of language.	Pupils participate **with some reinforcement** in interactive situations of brief and simple information exchanges through written and oral texts, about daily-based topics of personal relevance and proximate to their experience and context, via both analogic and digital devices, facing, among others, challenges that imply the generation of ideas and the search for creative and original answers, in order to respond to concrete and respectful communicative purposes, and to favour cooperative attitudes and an ethical and effective use of language.	Pupils participate, **in a progressive autonomous way,** in interactive situations of brief and simple information exchanges through written and oral texts, about daily-based topics of personal relevance and proximate to their experience and context, via both analogic and digital devices, facing, among others, challenges that imply the generation of ideas and the search for creative and original answers, in order to respond to concrete and respectful communicative purposes, and to favour cooperative attitudes and an ethical and

5.2. Recognise simple and direct connections between different elements of the natural, social, and cultural environment of the Canary Islands through observation, manipulation, and experimentation.	Pupils **barely** recognise simple and direct connections between different elements of the natural, social, and cultural environment of the Canary Islands through observation, manipulation, and experimentation.	Pupils recognise **few introduced** simple and direct connections between different elements of the natural, social, and cultural environment of the Canary Islands through observation, manipulation, and experimentation.	Pupils recognise **some of the introduced** simple and direct connections between different elements of the natural, social, and cultural environment of the Canary Islands through observation, manipulation, and experimentation.	Pupils recognise **all the presented** simple and direct connections between different elements of the natural, social, and cultural environment of the Canary Islands through observation, manipulation, and experimentation.
5.3. Show and promote attitudes of respect for cultural and natural heritage, especially that of the Canary Islands, recognising its diversity and its nature as a common good in order to contribute to its conservation and safeguarding.	Pupils **are barely able to promote** attitudes of respect for cultural and natural heritage, especially that of the Canary Islands, recognising its diversity and its nature as a common good in order to contribute to its conservation and safeguarding.	Pupils **require some help to promote** attitudes of respect for cultural and natural heritage, especially that of the Canary Islands, recognising its diversity and its nature as a common good in order to contribute to its conservation and safeguarding.	Pupils **are in the way of promoting** attitudes of respect for cultural and natural heritage, especially that of the Canary Islands, recognising its diversity and its nature as a common good in order to contribute to its conservation and safeguarding.	Pupils **show and promote** attitudes of respect for cultural and natural heritage, especially that of the Canary Islands, recognising its diversity and its nature as a common good in order to contribute to its conservation and safeguarding.

				effective use of language.
3.2. Select and use, in a cooperative and progressively autonomous manner in everyday interaction contexts, inductive and deductive methods, as well as basic strategies, such as repetition, slow rhythm or non-verbal language, to respond to communicative purposes that allow them to expand their individual linguistic repertoire.	Pupils select and use, **individually and by modelling,** in everyday interaction contexts, inductive and deductive methods, as well as basic strategies, such as repetition, slow rhythm or non-verbal language, to respond to communicative purposes that allow them to expand their individual linguistic repertoire.	Pupils select and use, **individually and with some reinforcement,** in everyday interaction contexts, inductive and deductive methods, as well as basic strategies, such as repetition, slow rhythm or non-verbal language, to respond to communicative purposes that allow them to expand their individual linguistic repertoire.	Pupils select and use**, with some reinforcement and motivation in cooperative skills,** in everyday interaction contexts, inductive and deductive methods, as well as basic strategies, such as repetition, slow rhythm or non-verbal language, to respond to communicative purposes that allow them to expand their individual linguistic repertoire.	Pupils select and use**, in a cooperative and progressively autonomous manner** in everyday interaction contexts, inductive and deductive methods, as well as basic strategies, such as repetition, slow rhythm or non-verbal language, to respond to communicative purposes that allow them to expand their individual linguistic repertoire.

3.5. Questions of ethical rigour

In order to preserve the right to privacy and the appropriate use of student data for this end of master's degree project, it was decided to use only those aspects of particular relevance to the research.

With regard to the questionnaires, due to the small number of members of the school's student body, the decision was taken to call them by the following item "Student X", in order to guarantee their anonymity, and the questions used in the questionnaire were not related to the disclosure of sensitive information to which they might feel connected. Furthermore, the questions were written in clear and easily understandable language, and only certain terms were clarified by using synonyms or contextualised examples so that students could provide an answer to each question; however, in those cases where students were unable to answer despite the clarifications, they were not insisted upon and were allowed to continue as they saw fit. Finally, the answers obtained both in the feedback to the lessons and in the surveys carried out have been respectful of the natural learning pace of these students, in no case being altered for research purposes, thus recognising the difficulties and/or results that contrast to a greater or lesser extent with the initial hypothesis set out at the beginning of the study.

Next, the information obtained will be reported and contrasted with the data obtained through the field diary and the surveys given to the students. After this, the results will be presented in the following section.

4. Analysis and interpretation of information

With regard to the analysis of the information obtained through the instruments described above, the following are the most relevant a learning situation was developed, following the principles of CLIL methodology, balancing the demands of the approach and the needs of the classroom, but with a little more weight given to the first requirement, as the aim was to test the effects of the new methodology on a group of students with these characteristics. Next, a satisfaction survey was created, comprising short, easy-to-understand questions, the answers to which could be either short answers or a drawing. In this way, as far as possible, both pre-primary and primary education could respond and, if they did not understand a section, it could be explained to them without influencing the answers given. Likewise, the answers, depending on the stage they were at, could be given in writing or with a stamp to indicate the pupils' feedback, without their stage of cognitive development being an impediment to the research.

Once it had been conducted and reviewed by experts in the subject matter of the study, it was put into practice in the classroom, and the necessary information was collected through the field diary. Since the group dynamics during the activities were more or less uniform, it will be noted later on in the results that the field diary included general student behaviour and ways of acting which were of interest for the study. It should be taken into consideration that the students have a lack of motivation which greatly affected the possibility of them finding an intrinsic motivation for learning, so the group's demands were relaxed, and it was "left to the expectation" what could be found after the implementation of the learning situation. Moreover, the surveys were handed out on different days, as students began to be absent for various reasons in the last months of the course.

Attending to the information that was collected during the put-into-practice period of the learning situation, these are the impressions that the researcher got from the observations:

Generally speaking, pupils started well with the CLIL lesson. The primary school pupils were attentive and participative and, although they did not know much of the vocabulary, their effort to learn was remarkable. The younger primary pupils were supported by the older pupils who, in this case, were only one of them as the others were unable to attend the class. The description of the data obtained in the sessions will be developed in groups of two sessions per writing, because it was decided that the first session would be a thread leading to the second, and so on, in order to reduce, within the researcher's possibilities, the probability that the students would forget what they had learnt, due to the external conditioning factors that affect their learning process:

Sessions 1 and 2:

One aspect of the session that stands out is that, as soon as the games arrived, the pupils were enthusiastic about the dynamic, trying to understand and participate to the best of their ability. There was only one activity that had to be postponed due to lack of time, and that is the one related to the autonomous elaboration of sentences with the vocabulary and structures learnt in the lesson.

Finally, a modification that will be made to the session is to prioritise that the pre-primary pupils are the first to participate in the activities, as they lose the thread of the lesson easily, even though the session was designed to be fun, given that they are aware that there is a

dynamic in the classroom but, when they move away from the exercises in a booklet, they get distracted because they do not see the use of it.

Sessions 3 and 4:

These sessions had to be done knowing that about half of the students were absent that day. Those who stayed (two pre-primary pupils and the few younger primary pupils, without the autistic pupil) were able to cope with the activity and managed to stay with the dynamics of the activities planned. It was in these sessions that it was highlighted that, in order to keep the dynamics of the activities and the outcome of the activities in mind, students needed to have very few instructions, and to learn by doing, rather than by explanations prior to the activity, however concise they might be. In other words, in any methodology, learners are expected to get some kind of explanation as to why things are done in a certain way, whereas these learners needed to conduct the activities without such explanations, as their capacity to retain information did not allow them to sustain knowledge beyond putting it into practice.

Sessions 5 and 6:

The social task had to be replaced by the implementation of some of the intelligences in the same activity, in which students had to use one of them to learn a content. In this case, the students returned to the content of vital functions and photosynthesis and, using the images of the video itself, through dance, accompanying it with phrases that they made up as they went along.

With regard to the evaluation, I had to replace it with a single hetero-evaluation because of the following: considering the answers given in the questionnaire, and due to the repeated absences of the students at the time the learning situation was carried out, it was considered a better option to focus merely on the survey and to consider the dance task as valid.

The students, although enthusiastic about the lessons, cognitively remained at the beginning in terms of adapting to the methodology. It should be emphasised that, in normal classes, it has taken several months for them to adapt, so trying to get them used to a new method, given the deficiencies they have, is not possible at the moment. In addition, CER Anaga is not part of the CLIL Plan, which accentuates the shortcomings in the effectiveness of the methodology.

Finally, it should be taken into consideration that these facts tend to be common in the classroom. Pupils are not used to what is commonplace in other schools. Older pupils want to be able to be with their peers, due to the amount of time they have been acting as older siblings in the class, and younger pupils do not have other children to look up to for intrinsic motivation to adopt school rules. Only the younger pupils in Primary Education attend and participate with more or less enthusiasm, within the norm for children of their age, as they have the younger and older children as a contrast.

To conclude, regarding the results of the survey, the whole classroom responded that they liked the CLIL learning situation. The students felt good or very good about working in teams to learn from each other, among which the reason is mentioned that they do not do the tasks alone, and only as a counterpart, we found that, for one of the cases, it was complicated because, while learning, they had to make sure that the children were paying attention at the same time.

Also, the most fun part for the students was divided between the activities of the pre-session routine, which were not part of the learning situation, such as the review of pronouns, verbs and the alphabet; in contrast, those who did refer to the activities of the sessions commented that the game of guessing the animals by following the characteristics presented as clues and learning the vital functions of living things through dance were the ones most often mentioned as the most fun. As for possible improvements, one case asked for more games to be brought in, and there was even talk of going out of the classroom more to extrapolate the activities to other parts of the school, taking advantage of the fact that it is small, while on another occasion, it was said that they needed more time sitting down, not because of the learning but because of post-game tiredness.

As for the task of drawing the activity in which they had learnt the most, the kinaesthetic intelligence activity for learning vital functions stood out, as well as riddles with animals, finding out which animal or plant species were endemic or invasive, and there was one particular case, in which a case from the pre-primary stage commented that he liked to listen to the explanations in order to learn.

Once again, kinaesthetic intelligence was the most frequently mentioned, followed by naturalistic, visual-spatial, interpersonal (through teamwork), linguistic (by the case of the pre-primary School pupil who talked about the explanations, who liked to feel the teacher at some

point during the sessions), and musical, the latter being largely related to kinaesthetic due to the combination of both for long-term memory.

Among the aspects mentioned by pupils with regard to what they had learnt with pupils at each school stage, it was mentioned that, with pre-primary pupils, they had learnt to help them or teach them to learn, as well as teamwork, respecting their classmates and having patience; On the other hand, with Primary School pupils, teamwork was reiterated, they learnt to help do homework with them, referring to the teaching role of some members of the pupils together with the older ones in the classroom; and to play games they had never played before, a reason given for the high dynamism of the activities in order to learn. It should be noted that, in addition to these answers, there were several members of the student body who did not give an answer to the questions related to the most fun part of the classes, the activity in which they learned the most, or whether they would repeat the lesson, due to the fact that, when asked, some of them did not pay attention to the clarifications of the question, and there was one case who scribbled the first letters of some answers and only completed those related to drawing, despite being a Primary School case, a fact that happens in other subjects due to personal circumstances of the case.

To conclude the surveys, the pupils responded, as mentioned above, that they would repeat the activities, and added as a proposal that more songs with animations, more games and new things should be brought in, and more opportunity to help the children next time.

5. Results, discussions, and conclusions.

This section describes the reality observed in the classroom regarding the teaching of the CLIL learning situation, combining it with the data provided by the field diary and the surveys, as well as contrasting it with the corresponding theoretical framework, previously elaborated:

According to the surveys given to the students, it was observed that the group was satisfied with the delivery of the learning situation. The teamwork made the pupils feel that they were in an environment conducive to their learning because it allowed them to learn from *each other, not do the tasks alone.* This is supported by the idea put forward by Veldman et al. (2020), since the student group was reinforced with the idea that they would not face the new challenges of CLIL learning but would do it hand in hand with their classmates, "explaining their ideas to others and asking group members to make the same effort", thus coinciding with

the constructivist approach of this methodology, in which the active living of new experiences enriches their learning.

A disadvantage, as stated by one of the cases, was that it was complicated to conduct their learning process at the same time as keeping an eye on the younger pupils *to make sure that the children were paying attention at the same time.* In this sense, this is believed to be a potential weakness of blended learning when it is carried out for the needs of the school, as the pupils do not observe real learning but interpret their role in the classroom as that of an old sibling rather than a person who can help adapt the teaching to the children. This demonstrates what was considered by Veenman (1996, p.334), stating that the benefits of bringing several ages together in the same classroom, "they are usually based on the literature with regard to multi-age grouping". Therefore, it is suggested that pupils may still require long-term cohabitation with their age peers, given that combining their stay in the classroom at different ages, considering the fact that they are children who have started school, has caused the hardening of their brain plasticity (Díaz, 2003) by not receiving feedback from people who are at the same vital stage as them, thus damaging the possibility of establishing an adequate situated cognition for the pupils in their most particular characteristics.

In the Rural School Collectives, the learning model is highlighted by the difference of ages seen in the classroom, so that not only the individual capacities of the students are differentiated as independent persons, but their capacity to assimilate the contents is conditioned by their ages, educational levels and internal conditioning factors (special needs, self-esteem, perception of reality and their immediate environment...) and external (socio-familiar situation, relationship with their peers, perception of themselves with respect to their classmates and other members of the educational community,...). This could be seen in the classroom, as *"in general terms, the pupils started well with the CLIL lesson. During the lesson, the primary pupils were attentive and participative and, although they did not know much of the vocabulary, their effort to learn was remarkable. The younger primary pupils were supported by the older pupils who, in this case, were only one of them as the others were unable to attend the class".* Here, the practical approach to cooperative learning can be seen, from which the benign interdependence of each group member helping each other was addressed, defining the role of each group member(s) according to the stage division (Johnson & Johnson, 2009).

The pupils spent many hours sitting down to do the activities that make up the different subjects. By the time CLIL began to be taught, in accordance with the principles by which English had been taught for many months, pupils had got into the habit of combining both standing and sitting tasks. That is why *the most fun part for the students was divided between the activities of the pre-session routine, which were not part of the learning situation, such as the review of pronouns, verbs and the alphabet; in contrast, those who did refer to the activities of the sessions commented that the game of guessing the animals by following the characteristics presented as clues and learning the vital functions of living things through dance were the ones most often mentioned as the most fun.* This could be due to the fact that the routine was already part of their everyday language, as they used it every day, after many attempts to learn it effectively, which meant a great cognitive effort for the pupils, who had not previously had a well-defined routine in the subject of English and, in addition to the contents to be assimilated, they would also acquire the classroom rules and habits as the activities were carried out. Another case in which the same scenario is repeated is the one described in the field diary as follows: *The students, although enthusiastic about the lessons, cognitively remained at the beginning in terms of adapting to the methodology. It should be emphasised that, in normal classes, it has taken several months for them to adapt, so trying to get them used to a new method, given the deficiencies they have, is not possible at the moment. In addition, CER Anaga is not part of the CLIL Plan, which accentuates the shortcomings in the effectiveness of the methodology.*

This would combine the transfer of Cognitive Academic Language Proficiency (CALP) to Basic Interpersonal Communication Skills (BICS) (Cummins, 1979, p.199). with the students' ability to adapt new knowledge to previous knowledge in language, which suggests that, due to the deficiencies of the teaching received by the students, they need a process in which these deficiencies are adequately redirected, something that requires more individualised and personalised attention for their success.

With Piaget and Inhelder's two stages "pre-operational phase" and "concrete operations" (2015). Despite the age ranges shown in each stage, the absence of the development of aspects of self-concept is worth to be mentioned, such as establishing the meaning of a reality or respect for a daily routine, as well as making new schemes based on the information received, is part of the educational deficiencies that the pupils have when it comes to learning, Therefore, as

already mentioned, this group was able to spend months with the same routine, learning it, and only when CLIL began to be taught could it be said that they had finally acquired the routine.

It should be borne in mind that the pupils had a significant lack of motivation and attention due to their personal contexts, and children referred to that scarce motivation at school through their suggestions: *as for possible improvements, one case asked for more games to be brought in, and there was even talk of going out of the classroom more to extrapolate the activities to other parts of the school, taking advantage of the fact that it is small, while on another occasion, it was said that they needed more time sitting down, not because of the learning but because of post-game tiredness.* This reflects the disparity of learning stages and maturity, which conditions the students' learning processes. In this case, the coming together of the different ages did not necessarily create a uniform learning system, as intended in the literature previously mentioned by Veeman (1996), but it did result in the pupils' zone of proximal development, due to the support received between the different levels constituted a learning model in which the younger pupils learned more quickly the ways of acting in the classroom, with respect to the subject, and the older ones reaffirmed what they had learned, seeing how others copied what they were doing, which gave them a perspective of their progress in their learning, thus fostering their autonomy in the process of acquiring content.

In addition, the younger pupils were watching the older ones, and this was a handicap when it came to managing the class. It is no longer so much about the effort one makes to maintain order and harmony in class, but that no matter how much one does, one is not going to receive the minimum reciprocity to be able to deliver the sessions, so one has to work with what one can. In this sense, one could say that *"one aspect of the session that stands out is that, as soon as the games arrived, the students were enthusiastic about the dynamic, trying to understand and participate to the best of their ability. There was only one activity that had to be postponed due to lack of time, and that is the one related to the autonomous elaboration of sentences with the vocabulary and structures learnt in the lesson.* However, as stated by Amstrong (2008), this was an advantage for the researcher, as she had to change the learning situation according to the intelligence that was most familiar to the learners to work "together in complex ways", thus demonstrating that there was more than one way of doing the same writing activity, only without resorting to sitting down, if specifically for that task.

Therefore, although it might seem to have been a setback for the study, it was not at all, because the researcher had to make an effort to modify the last part of the learning situation to the requirements of the classroom, which would still be part of the study, as it was said that the primary intention of the study was to test how a CLIL learning situation would unfold in such a classroom.

Pupils have a rather closed affective filter, according to Krashen's affective filter theory, which is a considerable impediment to the acquisition of new content, because their processing system, related to their motivation and their attitude to adversity and educational challenges (Rabbi, 2015) lacks sufficient discipline to bring forward discipline that respects the current state of their emotions without neglecting their responsibilities. The same theory mentions that the higher the affective filter, the lower the possibilities of learning, or rather, of accepting new types of learning; and, as long as it is low or open to being decreased, the students will be able to learn and assimilate new knowledge. In doing so, learners must go through a process of opening the affective filter, learning to find internal reasons for learning, without constantly resorting to the familiar childish ego of connecting what they learn with only what corresponds to self-knowledge. Put in a way that connects roughly with the students' thinking, they should stop thinking "why should I care about this?" and focus on "what is it that I am learning and where is it happening that I am being taught?", key aspects of effective teaching.

Their mind prioritises what is associated with play, movement, dance and music, which have non-verbalised instructions such as the representation of a dance step, so that what is related to writing sees in this preference a considerable adversary, regardless of the dynamics through which it is presented, in other words, even if it is presented in an attractive way. In this sense, it could be said that the multiple intelligences that predominated in the students' learning were bodily-kinaesthetic intelligence, whereby they connected new knowledge with the movement of their bodies, which made them more aware of what they were learning. (Sánchez, 2021, p.13); musical intelligence, which was connected to kinaesthetics, thus promoting long-term recall of certain CLIL subject content, as well as detecting sounds in the environment; and, interpersonal intelligence, due to the inter-dependence of students in order to achieve meaningful learning, which involved a "constant inter-relationship with other elements... competencies to be achieved, contents, context characteristics, instructional means and assessment strategies" (Mora, 2010, p.96). (Mora, 2010, p.96). In contrast, linguistic intelligence was rather weak. Although teaching through CLIL methodology does not require

precision in language, it does require a fluency that the students do not possess (Attard et al. s.f., p.6), not only in terms of production but also in terms of comprehension, because they were not able to relate what they learnt to the language, beyond the image-vocabulary correspondence.

On another occasion, it was said that the mere fact of writing is a cognitive burden for primary school pupils and, with reference to the performance of activities typical of the pre-primary stage, the difficulty lies in the lack of patience pupils have in waiting for the teacher to come and solve their doubts, even though the teacher has made it clear to them which groups they were going to go through first before reaching them. *This modification had to be made because the pupils had difficulties that occurred even months before the implementation of the study, for example, if the routine that started the class involved going over the pronouns in English, the pupils were not able to establish a connection between the song and the practical part, and they did not remember the lyrics even when they were repeated during those months, the three days a week that they had English class.* This is another reference to the lack of linguistic intelligence that persisted over the years and complicated the assimilation of knowledge, such as learning and mastering language in its different dimensions, oral and written, as well as understanding the receptive part of the language in order to achieve effective interaction with others.

A drawback in the development of the learning situation was having to postpone some activities, such as the one related to the autonomous elaboration of sentences with the vocabulary and structures learnt in the lesson, this change turned out to be positive, as it led to a review of what the previous teacher had taught in order to make progress with the syllabus and to be more concise in teaching the students. In this way, the intrapersonal intelligence of the students was reinforced, since, within their possibilities, they were able to check how they were learning the new content (Sánchez, 2021) to make sure that what they had been taught had a certain appearance that did not give rise to ambiguities or distortion of the information due to insecurity.

In turn, it reaffirms the fact that the theory of multiple intelligences beats traditional teaching methods, in that teachers get to know their students in depth as the course progresses, which allows them to bring out the cognitive processes that the student group employs and what deficiencies they may have when it is time to review what they have seen in the classroom. The pupils were not only confronted with a new methodology, but the requirements and demands

of the methodology forced them to increase their attention span, as the use of L1 decreased and they had to pay attention to the audiovisual support and the use of the Total Physical Response by the teacher. This was suggested when the researcher noted that, *in order to keep the dynamics of the activities and the outcome of the activities in mind, students needed to have very few instructions, and to learn by doing, rather than by explanations prior to the activity, however concise they might be.* The zone of proximal development also mentions this point, specifically, the establishment of tasks and games that allow students to reach a certain level of autonomy, based on the activities that the teacher establishes as a guide, making the experience an example of personal improvement in their learning.

The elaboration of the social task proposed would have been feasible if the students had been able to enjoy a good dynamic of foreign language teaching and the acquisition of learning habits. A change was made so that, when it was put into practice, the students focused on the realisation of kinaesthetic intelligence while they, on their own initiative, sang or tried to understand the succession of events in order to understand processes, so that several intelligences were being applied at the same time in the same activity. *In this case, the students returned to the content of vital functions and photosynthesis and, using the images of the video itself, through dance, accompanying it with phrases that they made up as they went along.* This modification had to be made because pupils had difficulties that occurred even months before the implementation of the study, for example, if the routine that started the class involved going over the pronouns in English, the pupils were not able to establish a connection between the song and the practical part, and they did not remember the lyrics even when they were repeated during those months, the three days a week that they had English class.

With regard to the evaluation, I had to replace it with a single hetero-evaluation because of the following: considering the answers given in the questionnaire, and due to the repeated absences of the students at the time the learning situation was carried out, it was considered a better option to focus merely on the survey and to consider the dance task as valid. Regarding this statement, the students finished with a score of 6 out of 10 for the evaluation criteria that referred to the acquisition of new knowledge, understanding of processes and connection of knowledge to broaden their conceptual schemes, which were 5.1, 5.2 and 3.1. Conversely, those evaluation criteria that were more related to the attitudinal and

value domain, 3.2. and 5.3. This is because the children are used to helping each other in those tasks that are difficult for them and, in their daily lives, they are a close-knit team and, from a more subjective perspective, could almost be considered a family; also, their respect for the Canarian environment is due to the fact that they live in the villages that comprise Taganana, in the Anaga Rural Park, so they live with the land, customs and traditions from an experiential and emotional connection point of view, that is to say, they do not learn about the Canarian content, they live the Canarian content every day.

To finalise with this epigraph, among the aspects mentioned by pupils with regard to what they had learnt with pupils at each school stage, it was mentioned that, with pre-primary pupils, they had learnt to help them or teach them to learn, as well as teamwork, respecting their classmates and having patience.

As mentioned by Johnson & Johnson (2009), cooperative learning reflects the responsibility of each learner for each part of the final product, thus referring to the positive of interdependence once again. On the other hand, with primary school pupils, teamwork was reiterated, they learnt to help do homework with them, referring to the teaching role of some members of the pupils together with the older ones in the classroom; and to play games they had never played before, a reason given for the high dynamism of the activities in order to learn. *Older pupils want to be able to be with their peers, due to the amount of time they have been acting as older siblings in the class, and younger pupils do not have other children to look up to for intrinsic motivation to adopt school rules. Only the younger pupils in Primary Education attend and participate with more or less enthusiasm, within the norm for children of their age, as they have the younger and older children as a contrast.*

It should be kept in mind that, in addition to these answers, there were several members of the student body who did not give an answer to the questions related to the most fun part of the classes, the activity in which they learned the most, or whether they would repeat the lesson, due to the fact that, when asked, some of them did not pay attention to the clarifications of the question, and there was one case who scribbled the first letters of some answers and only completed those related to drawing, despite being a primary school case, a fact that happens in other subjects due to personal circumstances of the case. From this last aspect, it could be concluded that these student group members need more time to learn to "combine efforts, talents and competences through a series of transactions that lets them achieve the established goals on a consensual basis" (Revelo et al., 2018 p. 117), as it would arise in collaborative

work, since the surveys, in addition to reflecting their level of satisfaction with regard to the learning situation, also involve a moment of autonomous work that, together, make up a common result that defines part of the reality of their learning with regard to the first contact with CLIL teaching.

To conclude the surveys, the pupils responded, as mentioned above, that they would repeat the activities, and added as a proposal that more songs with animations, more games and new things should be brought in, and more opportunity to help the children next time.

For all these reasons, the following conclusions were drawn, according to the results obtained and their contrast with the theoretical framework elucidated above:

- Group learning reduces the cognitive learning of mixed-age learners, as they no longer feel alone in their learning and find it useful by helping others to learn what they are being taught.

- The lack of coexistence with pupils of the same educational stage, at an early age, means considerable damage to their teaching-learning process, due to the fact that the decision to put them together has not been for the benefit of their learning but because of the lack of pupils in the centre, which also adds pressure and unpleasant emotions in the pupils, sometimes more manifestly than others.

- Cooperative learning, among other benefits, has led to a more meaningful group bonding, as they laid the foundations for helping each other, regardless of age, towards a common goal. This meant that the younger pupils matured, within what is known as the infant stage, more quickly in order to be able to complete their tasks within their possibilities, while the primary pupils learned to adapt to the pace of the younger ones and to be more patient with a learning pace that is still in the process of being generated.

- Students' deficiencies in their learning process have a greater impact than expected on their ability to adapt to new challenges, making it difficult to create new knowledge schemas by combining previous and new knowledge.

- With reference to the previous conclusion, learning deficiencies are due to the fact that certain aspects of their pre-operational learning and concrete operations have not been met within the minimum parameters. These deficiencies are an obstacle for pupils to empathise with the new

learning offered to them at school and to empathise with their peers in order to work as a team so that they can benefit more from working alone and help each other.

- The zone of proximal development of pupils did not unify the stages of cognitive development but it did accelerate the process of pupils' autonomy, bringing more maturity to the stages with respect to their stages of cognitive development.

- Although one case asked for more activities to be done sitting down, the pupils prefer to do writing-related activities in a way that gives priority to movement. In other words, they expect activities to be conducted in the opposite way to what they are used to, without reference to the material resources that the teacher can offer.

- The group needs to leave the infantile ego-state of the early childhood stage, because it increases their affective filter, and consequently does not allow them to learn new knowledge and establish connections between them.

- Despite not having completed all the sessions, the intelligences were manifested implicitly in the students' behaviour, within their teaching-learning process, since they showed a positive evolution with respect to their abilities and discovered that they were expanding beyond what they knew thanks to the collaboration with their classmates and the reflections that they brought to them in an intrapersonal way.

- The lack of fluency in the foreign language, within the requirements of each educational stage, is a handicap in the CLIL approach in the classroom, since both the comprehension of messages and the production of answers is reduced to understanding the process without being able to explain how they have reached a certain conclusion and the inability to propose alternatives.

- The lack of linguistic intelligence in the classroom needs to be reviewed. Pupils have a potential that was damaged by a teaching model that was ineffective and lasted long enough for it, especially with a view to the older pupils in the class, to be remedied.

- Multiple intelligences, seen by students as the use of everyday activities or hobbies, break down the barrier between teacher and students, allowing them to conceive their learning process as a game in which the teacher is only in charge of setting the rules, giving them the freedom to learn without fear of making mistakes.

- Due to the lack of maturity of the students and their first contact with CLIL methodology, they required noticeably short explanations, more than necessary, to be able to do even part of the proposed activity.

- When the zone of proximal development approach is combined with CLIL methodology, play must play a key role in teaching. By playing, students forget their "obligation" to learn and enjoy the process itself gradually and, as it is a dynamic, their autonomy will come more quickly than if teaching had been adjusted to traditional methods.

- The estimated time was insufficient to complete the social task due to the discovery of additional learning difficulties among students, which hindered the integration of knowledge into a single activity.

- The student assessment highlighted that their learning style should focus on the experiences they can take away with them after the end of the school year. Students need the teacher to take a close role, to overcome the barrier that normally exists between teachers and students, and to invite them to appreciate the beauty of learning and how it is applied in their reality, which strongly represents the Canaria content required in their teaching-learning process.

- The need for pupils to spend time with their peers is not just a conclusion drawn by the researcher but is a desire of the pupils themselves that can be seen as they conduct activities or educational needs

- Empathy is developed within the group and within each of the groups of more or less the same age.

- It is important to keep the division by levels in terms of knowledge acquisition, but by putting it into practice with younger pupils, not only do the younger pupils face new challenges in a context that respects their cognitive development, but the older pupils reaffirm their proficiency in the knowledge.

- Pupils made a strong effort getting used to the new methodology regarding their background, as they were required to expand their attention span and begin establishing connections with both the knowledge and the language.

- The multiple intelligence that prevails in the classroom can give clues to the group's strengths as well as its weaknesses, its preferences and how to overcome shortcomings as quickly as possible.

6. Limitations and future prospects

- The learning situation was designed with the principles of CLIL methodology more in mind than the reality of the students. The purpose of this decision was to observe how the learners reacted to the methodology and, although it is true that positive results were obtained, more would have been achieved if the learning situation had had more sessions available.

- Attention had to be paid to students by levels, not individually, due to the high activity of some and the lack of motivation of others. In this group, student motivation relies on the feedback that certain key students give to what they are learning. They are a good group to work with but, due to this lack of motivation, one must be constant with them and patient with their pace of work, which lacks the habit of study routines.

- These students require a lot of cognitive reinforcement. Eight sessions are not enough, so what we give during two or three sessions will not be enough for them to remember, as was the case with the words "endemic" and "invasive".

- Encourage teamwork on tasks that are complicated at the group level and give them the opportunity to research the topic on their own to make the content easier to assimilate.

- One handicap that has more to do with the students' shortcomings than with the research itself is their ability to reason about the content. An example of this is the presentation of a simple explanatory video of the simple presentation, so that they could review what they had seen in the course, as well as some short, repetitive practical exercises. Despite this, and this is something that the researcher has encountered throughout the course, the students did not seem to have the ability to remember what they had learned in the long term.

- With regard to the delivery of the surveys, students began to be absent for reasons of force majeure or other reasons, so that, if a study were to be carried out, it is recommended that it be carried out from the beginning of the second term, thus avoiding the situation of intermittent absences by this type of student group and the conditions in which they would fill in the surveys would be equitable.

7. Implications for educational practice.

- Linking different grades from time to time, so that students not only interact with their peers but can develop cognitively as they take care of younger students or those with more learning needs.
- When dealing with students with different kinds of educational needs, we cannot resort to the kind of gradual teaching that a group of students of the same age would be used to but must consciously choose the learning that will be essential in view of the requirements of the next school year. Considering that this new year will begin with a review of the previous year, the students will have a basis on which to reinforce their knowledge without the difficulty they had before the teachers took over to help them.
- Teachers must not only conduct this role but must also empathise with their older pupils and be a point of reference for them in guiding them, since, as has been said, they do not have their peers to share life perspectives and experiences with which to be enriched as they pass through each stage.
- Teachers should take a flexible role with regard to their authority in the classroom and delegate some responsibility to each group of pupils. For example, some of the children may have some control over the younger children so that they understand and take ownership of the classroom rules, since seeing the rest of the children comply with the teacher's requests may not lead them to obey at first hand, but their maturity level in relation to their age may be increased compared to an even-aged classroom.
- The social task could not be completed in the estimated time, since the students' learning brought out more learning difficulties that prevented any possibility of unifying the knowledge in the same activity. From this, it can be deduced that the students would need a prudential time to get used to the methodology and another period of time dedicated to the very slow implementation of each part of the learning situation, since it is most likely that new deficiencies to be solved will emerge, which requires a great effort and patience on the part of the teaching staff.
- With regard to the detection of the most relevant knowledge to be acquired by the pupils, a learning situation must be created in which the children find themselves in a context of learning by survival, that is, due to the pupils' inability to retain information for the mere fact of learning or having fun with the classroom dynamics, the teacher must induce this need to learn the language in order to be able to defend themselves in a foreign environment. We could define this as generating a *sense of urgency with*

educational intentions, This would mean that students would choose which cognitive load they want to deal with: their lack of motivation to learn or their need to learn in order to be able to defend themselves in an unfamiliar environment, the second choice being the one normally chosen by students.

- It should be borne in mind that the pupils had a significant lack of motivation and attention due to their personal contexts. In addition, the younger pupils were watching the older ones, and this was a handicap when it came to managing the class. It is no longer so much about the effort one makes to maintain order and harmony in class, but that no matter how much one does, one is not going to receive the minimum reciprocity to be able to deliver the sessions, so one has to work with what one can.

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9. Annexes.

9.1. Annex I.

<u>**Satisfaction survey: : Taganana detectives - The mystery of the Canarian ecosystem.**</u>

1. ¿Cómo te has sentido al trabajar en equipo para aprender algo nuevo?

   _____

   _____

2. ¿Cuál ha sido la parte más divertida? ¿Cuál mejorarías?

   _____

   _____

3. Dibújate en la actividad donde aprendiste más.

4. En esta lección, apareció la idea "multiple intelligences". Elige una y dibuja cómo podrías usarla para estudiar una lección.
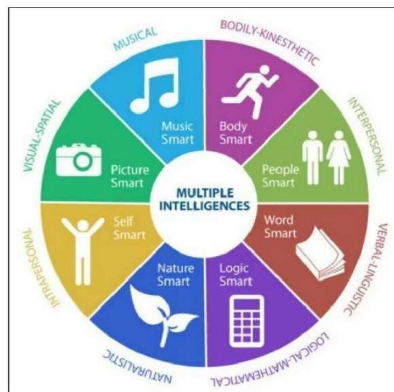
5. En tu grupo, hay niños y niñas de Educación Infantil y en Educación Primaria, que han empezado o van a terminar el curso. Di, al menos, dos cosas que hayas aprendido con cada uno de los grupos.

   Con Infantil, aprendí…
   _____

   Con Primaria, aprendí…
   _____

6. En general, ¿te ha gustado la lección? ¿La repetirías?

   _____

   _____

9.2. Annex II

1. **¿Cómo te has sentido al trabajar en equipo para aprender algo nuevo?**

Complicado con los pequeños, porque hay que estar pendiente de ellos

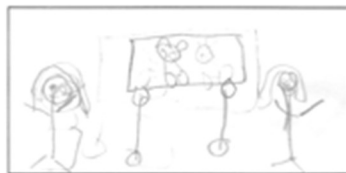Bien porque no lo aces todo tu solo

v.Ul'

2. **¿Cuál ha sido la parte más divertida? ¿Cuál mejorarías?**

Adiminar los animales ,lo aes mas fuego

Los verbos

los pronombres   quesea mas rapida

3. **Dibújate en la actividad donde aprendiste más.**

4. **En esta lección, apareció la idea "multiple intelligences". Elige una y dibuja cómo podrías usarla para estudiar una lección.**

Naturalist intelligence

Kinesthetic intelligence

Interpersonal intelligence

Interpersonal intelligence

5. En tu grupo, hay niños y niñas de Educación Infantil y en Educación Primaria, que han empezado o van a terminar el curso. Di, al menos, dos cosas que hayas aprendido con cada uno de los grupos.

Con Infantil, aprendí... _ha alludarlos a hacer la tarea_
Con Primaria, aprendí... _ha trabajar en equipo_

Con Infantil, aprendí... _trabajar en equipo_
Con Primaria, aprendí... _fue aydoar a tareacon ello._

Con Infantil, aprendí... _eseñanlos a aprender_
Con Primaria, aprendí... _a juga a cosas q no a jugato_

6. En general, ¿te ha gustado la lección? ¿La repetirías?

a ludas a los pequeños

VERY GOOD

la repeteri a con muchos juegos