

Masters Degree Thesis

Master Degree in Integrated Learning of Contents in a Foreign Language (English)

How to implement digitalization in an AICLE approach during the last stage of Primary Education: case study

Student: Aram García Estévez

Professors: Plácido E. Bazo Martínez

Natacha R. Díaz Luis

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Abstract

This educational intervention proposal surges from the need of demonstrate how the arising digitalization of the students has a beneficial relationship with CLIL activities. This study case departs from a deep analysis of the most significant theories, research and proposals in this field, then develops and implement an original didactic unit and finally contrasts the results with the previous analysis. It is centred on rural area located in the Canary Islands, Spain, where both CLIL and digitalization are not so developed. In addition, it mentions some of the most outstanding authors related to digitalization and CLIL. The document also offers many evidences of the implementation in the annex section. In general terms, this proposal pursues similar objectives, working over parallel lines of research, as well as some of the previous research and proposals in order to corroborate them.

Key words: CLIL, ICT, digitalization, digital competence, Primary Education, English, Knowledge of natural and social environment.

Resumen

Esta propuesta de intervención educativa surge desde la necesidad de demostrar cómo la creciente digitalización de los estudiantes tiene una relación beneficiosa con las actividades CLIL. Este estudio de caso parte de un profundo análisis de las teorías, estudios y propuestas más significativas en este ámbito, luego desarrolla e implementa una unidad didáctica original y, finalmente, contrasta los resultados con el análisis previo. Se centra en una zona rural ubicada en las Islas Canarias, España, donde tanto el CLIL como la digitalización no están muy desarrollados. Asimismo, se menciona algunos de los autores más relevantes relacionados con la digitalización y el CLIL. Este documento también ofrece varias pruebas de la implementación en la sección de anexos. En líneas generales, la propuesta persigue objetivos similares y trabaja en líneas de investigación paralelas a algunos estudios y propuestas previos, con el fin de corroborar los resultados.

Palabras clave: CLIL, TIC, digitalización, competencia digital, Educación Primaria, Inglés, Conocimiento del medio natural, social y cultural.

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1. Introduction

Is it worthy to combine ICT, language, content and digital Competence in a single CLIL didactic unit?

Nowadays, the use of technologies has been normalised among the society. In an educational context, it has open so many possibilities. For students, it is a new way of learning, much more dynamic than books and paper sheets.

This technology's importance radically arose during the lockdown of Covid-19. People became more concerned about how significant and integrated they are. Technology allowed people during these dark days to keep in touch with family and friends.

Coming back to the question, it would be a good starting point to observe how CLIL is performed in another European country. In this case, Italy is one of the leading countries in the sector. It has been evolving since the 90s decade. They have experience, methodologies, resources and even a teacher profile with detailed characteristics. They even have had some pioneering CLIL projects (Cinganotto, 2016).

Finding the motivation to step up CLIL could be a tough task. Perhaps the most powerful consequence witnessed by the teachers and learners is a sense of being part of a learning community, where everyone has a role to play (Coyle, 2006).

During this educational intervention proposal, many theories, researches and proposals will be analysed in order to perform a didactic unit and corroborate the results. This didactic unit is based on the Spanish educational law, which is going to be explained in detail thereafter.

2. Theoretical framework

The following educational intervention proposal is a didactic unit based on Spanish educational law LOMLOE (Consejería de Educación, Universidades, Cultura y Deportes, Gobierno de Canarias, 2022). This law has developed a unique curriculum per area. These documents work as a guide for every area, where there can be found contents, competences and basic knowledge.

The Canary Islands region has some particularities that differs it from the rest of Spain. First, it is located farther than any other region in Europe, therefore is considered an ultraperipheral area in the European Union. On the other hand, the archipelago recent history leaves an important heritage: tourism. It has become the economic engine of the region. Amazing beaches and landscapes are just some of the most appealing reasons for visitors to come.

This adds another dimension in the educational context that was not contemplated years ago, and gives much more importance to English language than just a simple area. Due to the touristic aspect, English is arising among the islands. CLIL emerges as an opportunity to deepen into the second language and a step to approximate to a bilingual education in schools and high-schools.

This unit tries to make a different approach about combining a CLIL subject with a proper development of Digital Competence. This is nothing new, but there are not so many didactic intervention proposals trying to do it. In this case, the content is going to be very significant for Canarian inhabitants and possibly never seen before: Canarian history.

Before continuing with the didactic unit, it is worth to revise this thesis' pillars: CLIL approach, which can be considered as an approximation to bilingual education; and digitalization of the teaching-learning process. Afterward, here will be a revision of different articles, proposals and thesis that pursued these aims before.

2.1. Bilingual Education

The Canary Islands government has set the goal of having bilingual schools for the year 2030, and is encouraging all schools to reach that objective. Behind this decision there is a European Union intention to institute the CEFR (Council of Europe, 2001) in its member countries. Stablishing a CLIL subject (AICLE in Spanish), is the first step, but there still being too much work ahead.

Many schools in the region have one or two CLIL subjects, but that is not bilingual. Merriam-Webster dictionary defines bilingual as "1. having or expressed in two languages. 2. using or able to use two languages especially with equal fluency.". Regarding this definition, a bilingual education is way more ambitious than it firstly appeared. It seems to be complicated to speculate if it is conceivable and viable, nevertheless there are many affirmative examples.

There is a pilot program in the region called PILE (Plan de Impulso de Lenguas Extranjeras), which pursues a more immersive, efficient CLIL methodology in thirteen selected schools and high-schools. Results of these centres have been positive, and they have demonstrated that a complete bilingual education (50% English and 50% Spanish), is completely possible with proper methodologies and resources, and more specialized teachers.

It sounds ambitious, but this has to be the line of work to follow. There are many advantages; the clearest one is that students will be able to communicate all over the world. Moreover, it has some disadvantages, being the most significant dispense with some content in favour to promote language.

Migration and diversity of students in schools can mean that educational systems need to respond to a high degree of heterogeneity of linguistic skills in the language of instruction (Marsh, 2012). This specially happens in touristic regions such as Canary Islands.

At the end of the day, there are more benefits than drawbacks in bilingual education. Furthermore, the educational system should still invest resources for schools and students as well as specific and specialized training for CLIL teachers.

According to Coyle, there is a "4 Cs" model in CLIL. Each "c" means content, communication, cognition and context. This is a model to regard when analysing a CLIL approach.

2.2. Digitalization of teaching-learning process

The second pillar after bilingual education is the digitalization of teaching-learning process. The European Union has been promoting a digital competence among citizens for years. It is completely necessary for a competent citizen profile in this growing technological era.

For teachers, this is not a specialization; it is also a necessity in a competent profile. Teaching nowadays is entirely surrounded by digital resources and technologies. Teachers use them either programming and making reports, or performing activities with the learners.

Covid-19 showed a huge deficiency referring to educational system digitalization. Both teachers and students were unable to maintain the rhythm during the lockdown of the pandemic. That tough time changed priorities into the system, not only for another situation alike, but for the boundless possibilities that digital resources offer. Recent research reflects all these facts (García Martín & García Martín, 2021).

There are many benefits, such as bureaucratic processes improvement, easy programming, wider range of activities to search, access to more programmes, units, activities, articles, thesis, etc. In addition, both teachers and system are now prepared for a non-presential sort of teaching-learning process.

Moving on to in-class situations, digitalization has the ease to adapt to every learner, or if not, at least offers more ways to learn. There are many resources and activities for every area, and teachers can create their own content more easily too. Picklers, Kahoot or Liveworksheets are just some of those resources with huge didactic potential.

Digitalization also brings a reality that was "hidden" before: the digital gap. This was not a true problem to consider until the pandemic arrived, thus this event uncovered the real severity of this gap. There were many differences among learners' families. Some of those families did not even have Internet connection or smartphones.

Many schools have invested in reducing this gap by acquiring new devices or services, such as a device borrowing service for families. Considering this a priority, perhaps this is the first step in a proper educational digitalization process.

2.2.1. Digital Competence

The European Union stablishes a deep development of students' Digital Competence. In Spain, it is split in five different descriptors according to European Framework of Digital Competences. These five descriptors are Alphabetization in information and data, Communication and online collaboration, Creation of digital contents, Digital security, Problem solving.

2.3. Research and bibliography about digitalization of bilingual education

Bilingual education and Digitalization of teaching-learning process have been analysed separately, but now it is time to regard them integrated in the same context. After exhausting research, some interesting examples were found.

There are some didactical approaches for CLIL and digitalization, but with different perspectives. In this case, there is a selection of the most outstanding authors in this expanding field that sustain the pillars.

In an article about Innovative STEM lessons (Schietroma, 2019), the authoress offers a different perspective centred on STEM (Science, Technology, Engineering and Mathematic competence), adding CLIL and ICT factors in a multicultural group of secondary.

The aim of this is to create, reorganize and develop knowledge regardless the language, while performing different subjects, such as chemistry, geography or Earth science. The point was not only mix Italian and English, but also French and Spanish, creating a plurilingual CLIL environment.

The results were extremely positive. In addition to the intrinsic enrichment of cultural exchange, learners showed considerable motivation. This motivation pushed the students to achieve even better results than during normal lessons. To conclude, efficiency of this activities proves to be superior to conventional lessons in every aspect.

This is another perspective of integrating CLIL and ICT in Secondary Education, centred in Geography. The document (Tarricone, 2021), shows the transformation occurred due to Covid-19, focusing on the use of multimedia resources, particularly films.

The authoress points some resources and tools, such as Google for Education, which became important after the pandemic. There are also many mentions about some sort of games to reinforce and enhance language, making CLIL more suitable.

To conclude, she describes the relationship between cinema and geography as reciprocal and interdependent. Films are a good way to work language and content at the same time, but there have to be a rigorous selection by the teacher before.

Creatin materials with ICT for CLIL lessons is a didactic proposal (López Pérez & Galván Malagón, 2017), and also works as a guide for those CLIL teachers who want to create their own content, considering insufficient or inaccurate those in the textbooks. The authoresses offer a lesson planning for Secondary Education as an example.

Throughout the proposal, there are many suggestions of mistakes to avoid or, conversely, useful recommendations to do when preparing CLIL activities. It is interesting for beginners who do not know too much about how to perform CLIL, or for veteran teachers who need to refresh their knowledge. Some resources are also mentioned.

To conclude, they count the advantages and disadvantages. The time and effort consumed to create original content seems a small price to pay for a fully customized content and language adapted for learners.

CLIL & ICT in English foreign language learning (Prentza, 2013), introduces an e-Twinning experience for Primary learners between a Greek school and an Italian school. For this cross-curricular project, both CLIL and ICT are essential.

The authoress starts making a description about the Greek educational system related to CLIL and ICT, and continues commenting what it is e-Twinning. This project was put into practice arousing motivation and willingness to work among the students.

She reflects that the outcomes and experience were very positive. Nonetheless, she points that CLIL and ICT should be strongly supported in order to demonstrate they usefulness, anticipating a new line of investigation.

CLIL in the foreign language classroom (Fernández Fontecha, 2012), acts as a shortage to provide materials and guidelines about CLIL implementation in a European context. The authoress points out that each CLIL scenario differs from others, but lists some overall tools and resources valid in every scenario.

After a small reflection about CLIL trajectory and European Union policies, the topic focuses Spain. Some tools and models are explained here, but then the CLPS (Content and Language Processing Sequence), is fully explained and detailed, being the main topic of the document.

To conclude, the authoress summarizes the content of her writing while making a deep reflection about its importance. The usefulness of this document turns it into the base of every CLIL activity, lesson or unit, due to its theoretical justification.

In Digital Competence and CLIL, according to the authors (Bazo Martínez & Francisco Déniz, 2018), WebQuests are defined by his creator Bernie Dodge as "a guided search on the Internet". They point WebQuests as activities to combine competency-learning and digitalization in a CLIL context through social tasks.

This interesting idea takes social tasks as one of the best contextualized learning environments even further. The authors point the importance of contextualized activities and real-life problems solving, being both the main characteristics of a social task.

WebQuests are defined and developed, showing the three existing types (Mini WebQuest, Treasure Hunt and WebQuest). Among the numerous benefits of this kind of social tasks, most notable are culture, autonomy and language immersion.

A proposal of a possible WebQuest is exposed. The steps and details can be easily followed in this example, with some pictures as visual support. This WebQuest is highly contextualized, including the key competences contribution for the current educational law at that time.

The conclusion shows a brief summary with a reflection, taking into consideration the authors' expertise in this field. This has been the inspiration of the present thesis didactic unit, which final project is quite similar to a WebQuest.

Last selected research article is CLIL & Digital Education (Díaz Luis, 2020). It introduces an innovative way to combine CLIL and digitalization with leisure. The authoress detailed the informal education, where there is no structure, sequence, authority nor evaluation. This is an interesting point because the reality is that learners spend a substantial amount of time subconsciously learning in this sort of contexts. The research done implied 35 adolescents (between 12 and 15 years old), from a private school with CLIL programme. To deeply analyse the case, a questionary was given to each of them, in which there were questions related to linguistic aspects learnt from streaming platforms and non-linguistic aspects.

The results were so positive. The relationship between CLIL programme and out-ofschool English improvement is very tight, despite having no connection with school contents.

The article ends summarizing all the results, with a deep reflection on the linguistic differences between those informal streaming platforms and academic language. However, it proved to be useful and appealing for students. It concluded opening new possible lines of research.

3. Methodology

The study case requires an original didactic unit as an educational intervention proposal. This original didactic unit has been developed in Knowledge of natural and social environment, and English; thus, it is developed in an AICLE context. It focuses on Canarian history for the third stage of Primary Education.

It makes use of cooperative and collaborative work due to the amount of benefits these methodologies granted, not only in an efficiency way, but in a social dimension (Johnson & Johnson, 2009). Furthermore, students can complement each other.

Another important aspect considered in this didactic unit has been the cognitive load theory (Nguyen, Clark, & Sweller, 2006), in order to maximize the students' efficiency. Hereafter there will be introduced the didactic unit.

In addition to collaborative work, this didactic unit focuses on an action-participation methodology. The student becomes the centre of the teaching-learning process, which improves the competences development and contents acquiring.

3.1. Context

The selected centre is a Preschool and Primary Education state school located in La Vega, Tenerife. This small village is situated on a rural area of Icod de Los Vinos, in the northern zone of the island. Tenerife is the biggest of the eight Canary Islands. This remote archipelago belongs to Spain, and is known because of its good climate. Therefore, the main economic engine is tourism.

Despite that, there are several differences between the northern and southern zones, being the last one where the most of touristic places and services are concentrated. Icod de los Vinos is a municipality formed by a medium-size town and a few nearby villages, such as La Vega.

This village has a population of almost 1400 people, and the school also receives students from small surrounding hamlets. Most people here work as farmers, but there are people

who work in the services sector as employees in shops and supermarkets, or even in hotels from the southern area, located almost an hour away from La Vega.

CEIP La Vega is a one-lined centre, meaning that it only has one group per level. There are many families with low resources, but the school offers many ways of help and support the children. Some families are deeply involved in their kids' education, participating in the activities as far as they can.

Referring to the structure, the school is divided in three different buildings. The main building contains all the services: school management, library, school lunchroom, psychomotricity room, etc. The most of the classrooms are here, including Medusa classroom, which is an informatic room equipped with computers. The school has made many improvements in Medusa, such as acquiring tablets, a chroma and a 3D printer, or renewing all outdated computers there.

The second building is located on the left, and it is the 2-years building. It is called so because it contains a 2-years Preschool classroom, which actually is split into two classrooms. Finally, the last building is located in front of the entrance, and it is the Chess classroom. The school also has two playgrounds, a court, a garden and some other spaces available for many educational purposes.

In methodological aspects, CEIP La Vega is focused on three pillars: ICT, logicalmathematical thinking and globalized areas. All of these is worked with PBL (Project-Based Learning), so there are no textbooks.

3.2. Justification

This didactic unit has been developed based on LOMLOE. This brand-new educational law has been stablished this academic year, so everything around it is new for all the community. Even the subjects' curriculums arrived late, so for three months the annual didactic programme was based on a draft.

This law just began this year in Primary Education for odd grades (1st,3rd and 5th). Nonetheless and due to the mixed nature of the group, 6th grade was also allowed to work exceptionally with LOMLOE. This law differs between stages instead of levels, so the whole group works the same competences, contents and criteria.

This CLIL unit work with two curriculums: English and Knowledge of natural and social environment. For the foreign language, the selected Specific Competence is number 2, which is related to written production. On the other hand, the selected Specific Competence for the CLIL subject is 8, which is about diversity and culture, but include Canarian contents.

The digital competence is also worked, focusing the 3rd area, related to digital content creation (INTEF & Gobierno de España, s.f.). All this information can be found in the didactic unit, located in the annex section of this document.

As the LOMLOE curriculum stablishes, today's societies, involved in a constant and rapid evolution, require skills that contribute to the development of an independent, active, democratic, inclusive citizenship that is committed to the increasingly global, intercultural and multilingual reality. Within this framework, the Canary Islands, as a geostrategic point for the confluence of different cultures, provides a context of special relevance in the management and use of languages that contribute to the enrichment of the individual linguistic repertoire of the speaker.

The cultural, geographical, historical, natural and social approximation of the Autonomous Community of the Canary Islands allows the generation of learning contexts in which the most relevant aspects of Canarian culture are appreciated, valued and respected. In addition, the opening towards heritage will mean the development of critical thinking in a society sustainable, coeducational, inclusive and integrating in line with the Canarian Agenda for Sustainable Development 2030.

Therefore, multilingual competence is presented as the ability to use different languages adequately and effectively for communication, placing the learner as an active subject in the creation of meanings and in the construction of knowledge. In addition, the development of a democratic culture promotes the idea of a European Education Area, which favours internationalization, mobility, and the discovery of other cultures, expanding intercultural awareness and the prospects and future job opportunities of students. From this point of view, the foreign language is conceived as a learning tool, its real and continuous use being essential as a vehicular language in the classroom.

The Foreign Language area contributes to the development of the different key competences that make up the exit profile of students at the end of basic education and directly participates in the achievement of multilingual competence in its two dimensions, communicative and intercultural. However, during the process of learning a language, not only communicative, multilingual and intercultural competences and communicative activities and strategies intervene, but also general competences, essential in their interrelation with the others, so that students deepen their knowledge, knowing how to be, knowing how to learn a language.

The purpose of this area is to acquire communicative competence in English in contexts of social communication and artistic expression, and allowing express themselves and understand in a basic way, managing in everyday situations, promoting the use of ICT and school libraries and developing a critical spirit towards the information they access to turn it into knowledge.

It will also facilitate access to new experiences and interpersonal relationships, allow access to other cultures, build bridges and participate in an increasingly globalized and multilingual society. In addition, it will facilitate mobility, an aspect that is increasingly present in today's Europe. Students can make use of a repertoire of skills and strategies that they already have in their mother tongue and transfer it to learning a new language: organize speech, use gestural resources, distinguish the general idea of an oral and written text, infer meanings from lexicon or linguistic structures by contrasting with their own language.

The CEFR defines competencies "The sum of knowledge, skills and individual characteristics that allow a person to perform actions" and defines the individual as a social agent. In this sense, the five language activities (listening, speaking, reading, writing and interacting) acquire meaning to the extent that their use is subject to participation in situations of social interaction. Based on these considerations of communicative competence, the didactic programming will be framed in various models and teaching methods, such as group research, directive and non-directive teaching, favouring the critical and creative thinking of the students, cooperative learning, as well as the prioritization of a dialogical teaching model (role play, simulations, exhibitions,

etc.) with a strong weight of information processing to transform it into communication, throughout the design of learning situations.

The learning situations have been designed for all students, contemplating the diversity of interests and needs, as well as respect for the different learning styles and multiple intelligences. Regarding the composition of the work teams in the classroom, it has been planned to favour the climate of coexistence and balance support among equals. The material resources needed to carry out this didactic programming will be varied, through traditional or digital formats, prioritizing the integration of ICT for the acquisition of digital, informational and linguistic competence, mainly, that students must acquire.

"Authentic documents or realia" of the foreign language will also be used as resources, such as audio-visual media, videos, songs, interviews, or tangible material resources such as tickets, plans, brochures, etc., from the foreign country in question, promoting communicative competence. When necessary, the sequence of learning situations will be adapted to the particular needs of classroom diversity, through scaffolding and metacognitive activities, specific support as far as possible, such as human resources (hearing and hearing specialists). Language, Speech Therapist, NEAE teachers, Counsellor or Counsellor of the educational centre) promoting respect and tolerance towards diversity.

The variety in the competence methodological approach will favour the integration of diversity in the classroom. Regarding the measures of educational reinforcement and recovery of learning not achieved by the students, they will be reinforced through the recurrent use of the evaluation criteria in different extra activities, allowing the continuous and global evaluation of the area, according to the different rhythms and styles of student learning.

Based on the curriculum, the contents are the vehicle for obtaining basic skills. For this reason, the contents to be worked on in this didactic unit have been chosen in order to develop the four basic skills, which are the pillars that supports all competences in a foreign language.

This didactic unit combines both qualitative and quantitative tools in order to obtain more accurate results of the students' progress and achieved knowledge. Some of these tools are rubrics, previous knowledge tests, etc. This kind of combination is natural of the Social Sciences, in which the more different approaches, the more precise conclusions.

3.3. Group

The selected group for the educational intervention proposal has been 5th and 6th grade. It is a mixed group with 18 students. 10 of these students belong to the 5th grade level, and the 8 left to the 6th grade level. There are 11 girls and 7 boys. They work the same didactic programme due to LOMLOE law stablishes stages instead of levels, therefore this is Primary Education third stage.

They are a very close group with few problems, even between both levels. Most students are hard-worker, and they love learning new things and satisfying their curiosity. Sometimes they could be very talkative, making difficult to continue the class rhythm or having to repeat some things.

There are some cases that are worth to mention. There are two students that work at a 2^{nd} grade level because of a curricular adaptation. There should have special attention with them, trying to simplify the contents or structures. Fortunately, they classmates are always ready to help them.

There are also a student with autism spectrum disorder, who is very skilled with English, and a student with attention deficit with hyperactivity disorder. Both don't require any special treat because they are perfectly integrated with the class and they follow the rhythm without any difficulty.

The classroom has individual chromebooks for every student, as well as an adjacent classroom with computers and a 3D printer. Students are accustomed to use all of these devices. They have a high developed digital competence; they know how to use a wide range of applications and how to surf on the internet in a safe way.

3.4. The Didactic Unit

This educational intervention proposal has been developed in some directions. The didactic unit pursues the goal of combining Knowledge of natural and social environment, English, ICT and Canarian content. Trying to mix that many different areas could be very challenging, even more when assembling all the pieces into a didactic unit.

This is a possible answer to such a tough puzzle, after some research. The social task has been specified, integrated into the didactic unit. It is a 10 sessions unit that works both Canarian content and English using digital resources, always working the criteria and competences from Knowledge of natural and social environment, and English curriculums.

The final product is quite similar to a social task. It consists on a presentation made with Google Slides, in which the students have to show the rest their researching about Canarian history and culture. The full didactic unit can be found at the annex section of this document.

3.5. Assessment

Assessment is one of the most significant parts of a didactic unit. In this case, due to the vast content and complexity, the assessment is performed in different ways. Firstly, a previous knowledge survey has to be fulfilled by the students (done with Google Forms), in order to specify the real starting point. This is a mixed assessment (qualitative and quantitative).

During all the unit, the teacher has to be paying attention to all the students: how are they responding to the unit, possible difficulties that may appear, how much effort are they putting in their work, etc. This is an observation assessment, which is also qualitative. All this information is gathered in a field journal.

At the end, the final projects and presentations must be evaluated in a quantitative way using rubrics. Those rubrics are divided in three types, depending on which aspect are they evaluating (contents, digital competence or language). This is a quantitative method for assessment.

3.6. Attention to diversity

The major point related to this section is the students with curricular adaptation. Both have a huge gap of three courses, which makes usually complex for them to follow the rhythm. In this case, there is no exception.

Fortunately, the group is so inclusive. Their classmates are always trying to help them or looking for better ways to make them understand something. Bearing in mind those helpful hands, the measure to deal with this drawback has been simple but effective: to put them separated in groups with the most willing to help people.

For one of the cases, the measure was successful. The student was close to pass the 5th grade mark. Even though she did not reach it, she acquired vocabulary and some grammar structures very above her level. Anyway, she passed 2nd grade level with ease.

Moreover, the other student was not so close. His lack of motivation and effort made difficult his assessment. Notwithstanding, he learnt a few things and passed the level of 2^{nd} grade, but leaving behind an unsatisfying feeling.

As it was mentioned before, the other students did not need any kind of measure. They performed well and passed their level mark. The student with autism spectrum disorder even achieves the second highest mark of all the class, just surpassed by one 6th grader.

4. Results

The assessment of this didactic unit is long and complex, but the results are very enlightening. There is too much information behind all of these numbers, and a deep reflection is going to be done, extracting significant conclusions. Every assessment tool and the results can be found in the annex section.

4.1. Previous knowledge survey

The first tool used is the previous knowledge test, done with Google Forms. It has 6 questions related to the Digital Competence and 5 questions about Canarian history. At the beginning, students are asked for their name and grade.

There are some "short answer" questions (where I allowed answering in Spanish), and some ranged questions (from 1 to 5). The analysis of these ranged questions broadly shows very positive answers. Students are self-confident with their digital skills, and that is reflected with an overall average of 3,7 over 5.

The first question, which is about searching information on the Internet, has the highest average mark of all the questions, with 4,2 points, a variance of 0,789 and a standard

derivation of 0,623. On the other hand, the last quantitative question, which is about computational thinking and problem solving, has the lowest average mark with just 3,4 points, a variance of 0,489 and a standard derivation of 0,699.

There are many differences between the 5th and 6th graders. Unexpectedly, 5th graders have better marks than their older classmates in every single question. In comparison, the younger ones have a 3,95 average, a 0,682 variance and a 0,826 standard derivation, while the 6th graders have a 3,533 average, a 0,396 variance and a 0,629 standard derivation.

Last Digital Competence question was about which tools they know among a variety of software. Most students chose almost every application there. Some of them even added a few of not so educational applications, such as Tiktok and Instagram.

Advancing to the Canarian history questions, there are only "short answer" questions here. Students had the possibility of left the answer empty if they didn't know it. The first question is about the Guanches, and many of them contribute with some valuable information: they are our ancestors, they are ancient, they spoke by drawings, etc.

The next question was about their knowledge of the Conquest, but nobody answered anything. The third question was about important writers or musicians, and there were empty answers or "Quevedo" answers, despite a student, who surprisingly answered "Eloísa".

The fourth question was if they had visited any museum, with just one student answering "No". Finally, last question was if we should give more importance to our history, where most students answered affirmatively.

Once this previous knowledge was done and the results analysed, there was a real starting point.

4.2. Field Journal

Through all the didactic unit, I have written a brief field journal. In this document, I have been taking notes about several aspects of the students, such as motivation or difficulties. This is a qualitative way to check the evolution of all the group during the process.

The field journal also shows how the didactic unit was implemented, including some unforeseen events. That is especially important because reality differs from paper, and some modifications were done to ensure the didactic unit was performed in the best possible way.

Pointing the most outstanding thing from the field journal, one session was suspended because there was an unavoidable activity in the school, but there was no need to recover it. At the end, there was an extra session implemented to see the mistakes made in the final projects and correct them.

4.3. Rubrics

The rubrics were the main assessment tool in this educational intervention proposal. Rubrics are an awesome way to assess contents, competences or skills in such a precise way. They can even get numbers to quantify the obtained results.

Unfortunately, co-evaluation and auto-evaluation were not performed due to lack of time, and the only kind of assessment accomplished was hetero-evaluation, conducted by the teacher.

In this case, there have been developed three kinds of rubrics. The first one is about content, the second one is about language and the third one is about Digital Competence. Each rubric has been split into three different items to ensure a better assessment. In addition, each item has four different stages (insufficient, adequate, remarkable and outstanding), receiving values from 1 to 4.

Starting with contents rubric, results have been lower than expected, with an average of 2,611 over 4, a variance of 0,451 and a standard derivation of 0,656. It is worth to mention that 5^{th} graders have lower marks than 6^{th} graders.

Language rubric has expectedly the lowest marks of all three rubrics. This is expected because some language difficulties were detected in the previous knowledge text, as well as during the field journal. The average mark is 2,426; with a variance of 0,626 and a standard derivation of 0,792. Regarding the levels, 6th graders have higher marks than their younger classmates, with 2,667 over 2,234.

Digital Competence rubric has been excellent. This rubric shows the highest marks for both levels, with a combined average of 2,833 points, a variance of 0,292 and a standard derivation of 0,54. Once again, 6th graders have better results, despite 5th graders being so close.

To sum up, the average mark of the whole group across the three rubrics is 2,623; it has a variance of 0,472 and a standard derivation of 0,687. It is almost an overall pass, due to all students are over 2 points, except the students with curricular adaptation. For those cases, a 2^{nd} grade competence rubric can be use, so both learners can pass normally according to their real level.

Attention should be drawn to the language aspect, where the most difficulties are. On the other hand, Digital Competence aspect is clearly one of the group strengths as they have been developing it since early ages.

5. Analysis and reflections

After analysing the results of the educational intervention proposal, there are many reflections and thoughts about it. In general, the didactic unit follow the proposed script with not so many changes, maintaining unaltered the final product.

5.1. Analysis of the results

The results have been positive for all the students, though there were some difficulties. This group have no problems within the digitalization aspect, and very little about the content aspect. These aspects are broadly successful.

Contrary to them, the third aspect presents many complications. Language has been tough for students since the beginning, when it was detected as a weakness with the previous knowledge survey. This is an extensive topic to comment.

There are some reasons that may led to this situation. Firstly, many students do not give importance to English, considering it even unnecessary. A minority just do not find the second language motivating enough.

Lastly, the main reason is the environment. There is no English stimulus outside the school, no contact with foreign people and no help, support or encouragement from the families. Just a single student goes to English classes after the school. The overall thinking in the area tends to underappreciate or ignore the most spoken language in the world, conceived as a vehicular language.

Despite being a very unhappy reason, a new achievement could be set. This reflection could lead to a brand-new school project that tries to sensibilize the families and make them aware of the importance of English. This would be a wonderful way to take advantage of a social problem in favour of education.

5.2. Overall reflections

One interesting perspective about digitalization can be considered now. The evolution from ICT to LKT (Lozano, 2011), means that these technologies are acquiring a new meaning with didactic purposes, becoming Learning and Knowledge Technologies.

Across all this document, ICT has been present the entire time as an educational resource and the base of many didactic proposals. Perhaps, regarding its usefulness, it is time to consider this evolution and begin calling them LKT.

New advances, researches and innovations show a promising future for education in Europe. Most countries are now concern about digitalization and bilingual education, and that is the line to follow.

CLIL activities must continue growing and improving. Large-scale investigations of this nature will provide additional relevant research findings about the effects of CLIL instructional practices which will contribute to the sustainability and future development of dual-focused programs (Pérez Cañado, 2012).

These interesting reflections raise another significant topic: CLIL teachers. There are many doubts about which kind of specialization does this profile need, or if CLIL teachers are underqualified. CLIL is not that easy to implement, neither to teach.

There are some basic requirements to fill this role, such as linguistic skills or content expertise. Nevertheless, to be a competent teacher requires way more. For example, it is essential that both content teacher and foreign language teacher work together towards the common objective – content and language integrated learning (Pavón Vázquez & Ellison, 2013).

There are other many factors that played a discreet role during this didactic unit. Many pedagogical theories about attention, motivation, methodologies, etc. could be applied here. For example, the use of electronic devices is a trigger that can change it all (for better or not).

Coming back to the "Cognitive load theory", the use of technology, despite not changing our cognitive processes, can fail abysmally if the human cognitive architecture is ignored (Sweller, 2008). This should be kept in mind in order to make a healthy safe use of digital devices.

5.3. Didactic unit consolidation

After these reflections, it is time to observe the real usefulness and viability of this kind of didactic unit. From an objective point of view, the goals have been reached. Language, content, digitalization, all three have been overcome but in different proportions.

This unit demonstrate, once again, that CLIL activities and digitalization are two very close terms and can be worked in every area, subject or context. This educational intervention proposal just follows and corroborate the steps made by other examples cited in this document.

However, the complexity of this sort of activities or units has a cost; language or content, or both, have to be lowered in order to be successful, otherwise the results could be devastating, neither acquiring language nor content.

Referring to students, the motivation factor has been there through all the unit. They love ICT, and they find amusing anything as long as it contains some kind of device or digital resource. This would be beneficial not only for English or CLIL subject, but for any other subject.

To sum up, the unit has passed, but is important to bear in mind the strengths and weaknesses of this sort of units. Even though, I encourage all the teachers to trust this approach and try it. They will be pleased.

6. Conclusion

Throughout this didactic intervention proposal, there have been revised many theories, researches and didactic proposals. All of them, in a way or another, were aiming the same objective: a proper combination of CLIL and digitalization. After all, this didactic unit also pursued it. In this way, it proves to obtain similar results, thus its purpose is consolidated.

All of the mentioned theories, such as the motivation factor by Do Coyle, have been verified during this didactic unit. That also includes researches and proposals similar to

this one. The conclusions were also similar because all researches and proposals worked an alike line of investigation. These reflections agree with Tarricone's or Fernández Fontechas's.

Moving on to other issues, the results of this exact intervention open a new and ambitious field. Trying to make certain amount of people to change their minds and be aware about the importance of English is such a challenging task, but highly rewarded.

In addition, this could help to reduce the digital gap. The school could invest more in this line by acquiring more devices or simplifying the borrowing service. This is just a tiny contribution to the cause, but it would be pioneer and serve as an example for other rural areas with similar characteristics.

To conclude this thesis, I would like to ask again: Is it worthy to combine ICT, language, content and digital Competence in a single CLIL didactic unit? The answer is not just a simple "yes"; it is not worthy, but highly recommended.

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Annex

- 1. Annex 1: Didactic Unit
- Annex 2: Previous knowledge survey
 Annex 3: Field Journal
- 4. Annex 4: Evaluation results
- 5. Annex 5: Example of a final product

1. Annex 1: Didactic Unit

CLIL SOCIAL TASK PLAN		PRIMARY EDUCATION

Trainees: Aram García Estévez Education School: CEIP La Vega	Academic year: 2022/23
Level: 5 th and 6 th of Primary Education (LOMLOE)	Title: The Museum of Canary Islands History
Area: Knowledge of natural and social environment	Timetable: 17/05/23 – 09/06/23

CLIL SOCIAL TASK	EVALUATION CRITERIA
	ENGLISH CRITERION: Specific Competence 2:
This Social Task pursues a deep reflection about their roots for the students. They will have to research and compare information from different sources, and elaborate their own knowledge.	Criteria 2.1 and 2.2 (Production of simple texts and strategies).
With this Didactic Unit, the students will also acquire a critical thinking about	CLIL SUBJECT CRITERION: Specific Competence 8: Criterion 8.1 (Canary Islands history and culture).
the Canary Islands nowadays, and the differences between the past and the present. Furthermore, they will learn new characteristics about their culture.	DIGITAL COMPETENCE DIMENSION: Area 3- Digital content creation.
	OPERATIONAL DESCRIPTORS:

They will try several diverse digital resources to show knowledge in many different approaches. The Social Task will be a presentation done with Google Slides in a collaborative way. The students will learn from each other	- English: CCL1, CP1, CP2, STEM1, CD2, CPSAA5, CE1, CCEC4.
At the and of the eleberation of the elidee students must employ their final	- CLIL subject: CCL5, CP3, CPSAA3, CC1, CC2, CC3, CCEC1.
At the end of the elaboration of the sides, students must expose their final product: how they did it, the main problems they had regarding historical, digital and communicative content.	BASIC KNOWLEDGE:
	 English: I 1, 8, 10, 11, 12; II 1, 7; III 2; IV 8. CLIL subject: I 1.1, 1.2, 1.3; II 1.1, 1.2, 1.3, 1.4, 1.5,
	1.6, 2.1, 2.2, 2.3, 2.4; III 2.1, 2.5.

NEW UNIT CONTENT	REVISION – CONTENT
1. Language -Functional content:	1. Language - Functional content
Linguistic content (Functions): To use superlative adjectives. To use "there was/were". Vocabulary: natives, conquest, conquerors, battle, Catholic Monarchs, tourism, government, population, economy, Structures: - "Tenerife is the biggest island"	 Linguistic content (Functions): To make past tense sentences. To make comparisons. To use "there is/are". Vocabulary: kinds of food, sports, clothes, animals and transport means; volcano, city.
- "There was a bloody battle in Acentejo"	- "The ships went to the Canary Islands"

2. <u>CLIL Subject</u>	 "Tenerife is bigger than La Gomera" "There are eight islands"
Content: The culture of the Guanches, the conquest process, the evolution and developing of the Canary Islands until these days.	2. <u>CLIL Subject</u>
	Content: The Canary culture, basic knowledge about the conquest.

KEY COMPETENCES

(Related to the evaluation criteria)

- Linguistic Communication Competence (CCL): This competence is deeply worked during this didactic unit. Students will need their strategies in order to be able to communicate to the others, despite not using Spanish language.
- **Plurilingual Competence (CP):** The Plurilingual Competence is the start point of this Didactic Unit. English, the foreign language, is the main mean of communication for the students. This is the main aim of a CLIL-based methodology.
- Mathematic Competence and Science, Technology and Engineering Competence (STEM): Following the steps of the scientific method, the unit pursues competent research by the students. They have to search and choose carefully the information needed. They also have to understand that information.
- **Digital Competence (CD):** The digital competence is worked across all the Didactic Unit. It's present all the time; the students are using different devices and software. In addition, they make a clever, responsible use of all these technologies. Further information can be found in the Digital Competence dimensions.
- Personal, Social and Learning to Learn Competence (CPSAA): Students are creating their own knowledge by researching.

- Entrepreneurship Competence (CE): The open nature of this Didactic Unit lets the students feel free to create their product as they want. The products are a mix about curiosity, creativeness, hard work and uniqueness.
- Awareness and Cultural Expressions Competence (CCEC): Students are developing a cultural awareness by comparing their own culture with the past ones. They have to respect, analyse and understand the different cultures and how those cultures have evolved.

COGNITION

- To analyse how they communicate digitally.
- To be careful while using personal information.
- To avoid certain places on the Internet.
- To make students aware of the relevance of following certain digital rules of interaction.

CULTURE

- The Guanche culture before the conquest of Canary Islands.
- The process of the conquest by the Catholic Monarchs.
- The evolution of Canary Islands through the years.
- The Canary Islands society nowadays.

ASSUMPTIONS	ANTICIPATED PROBLEMS

(What we think learners already know or can already do related to the content)	(Things learners may find difficult)
 Basic knowledge of the Canary Islands history. Canary Islands vocabulary, such as "gofio" or "millo". Some knowledge about the islands nowadays. 	 To use specific vocabulary. To properly select the information. To understand the different periods and to be able to order them in a chronological way.

EVALUATION CRITERIA - CONTENT UNITS	
ENGLISH	CLIL SUBJECT
 SPECIFIC COMPETENCE: Competencia específica 2. Producir textos sencillos de manera comprensible y estructurada, mediante el empleo de estrategias como la planificación o la compensación, para expresar mensajes breves relacionados con necesidades inmediatas y responder a propósitos comunicativos cotidianos. Descriptores operativos de las competencias clave. Perfil de salida: CCL1, CP1, CP2, STEM1, CD2, CPSAA5, CE1, CCEC4 Criterios de evaluación: Producir, de forma progresivamente autónoma, textos orales, escritos y multimodales breves y sencillos, usando soportes analógicos y digitales, para realizar intervenciones en situaciones de comunicación, de relevancia personal y próximos a la experiencia del alumnado. 	 SPECIFIC COMPETENCE: Competencia específica 8. Reconocer y valorar la diversidad y la igualdad de género, mostrando empatía y respeto por otras culturas y reflexionando sobre cuestiones éticas, para contribuir al bienestar individual y colectivo de una sociedad en continua transformación y al logro de los valores de integración europea. Descriptores operativos de las competencias clave. Perfil de salida: CCL5, CP3, CPSAA3, CC1, CC2, CC3, CCEC1 Criterios de evaluación: 8.1. Analizar los procesos geográficos, históricos y culturales que han conformado la sociedad actual y su reflejo en Canarias, valorando la diversidad cultural y la cohesión social, mostrando empatía y respeto por otras culturas, y apreciando la riqueza que aportan a la sociedad canaria.

- 2.2. Seleccionar, planificar y aplicar, de forma progresivamente autónoma, conocimientos y estrategias adecuadas con ayuda de recursos analógicos y digitales, para preparar y producir textos creativos convenientes para las intenciones comunicativas en contextos cotidianos que contribuyan al pleno desarrollo personal, creativo y emocional.
 - **Explicación del bloque competencial:** A través de este bloque competencial, se comprobará que el alumnado es capaz, por un lado, de producir textos tanto orales, escritos y multimodales en todas sus dimensiones y formas; y por otro lado, de seleccionar, planificar, usar y aplicar estrategias adecuadas de forma progresivamente autónoma y creativa, que le permitan realizar intervenciones en situaciones de comunicación sencillas y cotidianas, de relevancia personal y próximas a su entorno inmediato, con actitud cooperativa y respetuosa. En este sentido, se verificará que está en disposición de exponer presentaciones breves, realizar descripciones y narrar, de forma accesible, textos que expresan hechos, conceptos, pensamientos, opiniones y sentimientos. Para ello, el alumnado podrá hacer uso de diferentes soportes analógicos y digitales, realizando búsquedas guiadas, y reconociendo la propiedad intelectual de las fuentes consultadas y contenidos utilizados. A su vez, se pretende que el alumnado desarrolle la empatía, valore puntos de vista y tenga una visión más creativa y emocional del aprendizaje.
- Explicación del bloque competencial: A través de este bloque competencial, se persigue constatar que el alumnado es capaz de analizar los procesos geográficos, históricos y culturales que han conformado la sociedad actual (movimientos migratorios, minorías étnicas presentes en nuestro país, diversidad cultural y lingüística de España...), y su reflejo en Canarias, respetando y valorando la diversidad cultural presente en su entorno, reconociendo y comprendiendo su valor como factor de mejora de la convivencia y del bienestar individual y colectivo de una sociedad en continua transformación. Esta realidad múltiple y 53 diversa debe afrontarse desde los principios de igualdad, de respeto a los derechos humanos y de la infancia, y desde los valores del europeísmo, para prevenir prejuicios y actitudes discriminatorias, y favorecer la inclusión y la cohesión social. Se evaluará, también, que el alumnado promueva acciones, empleando estrategias cooperativas en actividades comunitarias, para la igualdad efectiva entre mujeres y hombres, para evitar las conductas sexistas, a través del desarrollo del pensamiento crítico de los estereotipos y roles, y para respetar la diversidad afectivo-sexual, analizando y contrastando diferentes modelos en nuestra sociedad. Se valorará que el alumnado respete todo tipo de diversidades asociadas a la etnicidad, el género, la edad, las creencias, la identidad. la orientación sexual o la situación funcional de las personas, mostrando actitudes basadas en el respeto y el desarrollo universal, la inclusión, la equidad y la accesibilidad, de manera que se oponga a cualquier forma de discriminación o violencia.

LESSON: 1 (Google Forms - Previous knowledge) DATE: 12/05/2023

TIMING	PROCEDURE (Exercises, activities, social tasks) (Skills)	I DO IT BECAUSE	AIDS AND MATERIALS
40'	Previous knowledge survey: The students will fill out a Google Form divided in two parts; one about Digital Competence and the other about Canary Islands history.	The teacher needs to know the beginning point. It is also a need to know the weaknesses of the students, so these aspects could be deeply worked.	 Students' chromebooks Teacher's laptop Digital projector
10'	The teacher will show and analyse the results with	The students have to know what are their strengths and their	
	the class, looking for the strengths and weaknesses.	weaknesses.	

LESSON: 2 (Genially - Grammar) DATE: 17/05/2023

TIMING	PROCEDURE	I DO IT BECAUSE	AIDS AND MATERIALS

	(Exercises, activities, social tasks) (Skills)		
15'	The teacher will explain the new grammatic structures with the help of a mind map, done with Genially.	A visual explanation is a good starting point, either for reviewing or learning new things.	 Teacher's laptop Digital projector Paper worksheets
30'	The students will work the new structures with an exercise's worksheet, also done with Genially.	The students must acquire the new grammatical content properly, so a worksheet accomplishes that task.	- A pencil and a rubber
10'	Finally, all the class will correct these exercises	The students correct the worksheet together with the teacher, so they can check where they have been mistaken	

LESSON: 3 (Liveworksheet - Vocabulary)

DATE: 18/05/2023

TIMING	PROCEDURE (Exercises, activities, social tasks) (Skills)	I DO IT BECAUSE	AIDS AND MATERIALS
15'	The teacher will explain the new vocabulary with the help of a mind map on the whiteboard.	A visual explanation is a good starting point, either for reviewing or learning new things.	 Students' chromebooks Teacher's laptop Digital projector
30'	The students will work the new vocabulary with a worksheet made with Liveworksheet.	The students must acquire the new grammatical content properly. Liveworksheet makes that function and is more visual than paper worksheets, resulting more appealing for the children.	
10'	Finally, all the class will correct these exercises together, paying special attention to the mistakes.	The students have a direct and instant correction, so they can check where they have been mistaken. This is one of the advantages of Liveworksheet.	

LESSON: 4 (Canva – The Guanches)	DATE: 19/05/2023

TIMING	PROCEDURE	I DO IT BECAUSE	AIDS AND MATERIALS

	(Exercises, activities, social tasks) (Skills)			
10'	The teacher will give the students a flyer made with Canva with brief information about the Guanches.	An example is the best way to show a new resource. The students can see how it is done and take some ideas.	-	Students' chromebooks Teacher's laptop
30'	The students will create their own flyers. They have to tell the information received with their own words.	Having time and a new resource has boundless possibilities. The students can test everything they want about the resource and make incredible products.	_	Digital projector
10'	The students will briefly show what they have done.	This is the most important part of the lesson. They show, they share and they learn, being this process so rewarding for them.		

LESSON: 5 (Youtube – The Conquest)

DATE: 24/05/2023

TIMING	PROCEDURE (Exercises, activities, social tasks) (Skills)	I DO IT BECAUSE	AIDS AND MATERIALS
10'	The students will watch a few videos on YouTube that shows in a clear way how the conquest was.	An example is the best way to show a new resource. The students can see how it is done and take some ideas.	 Students' chromebooks Teacher's laptop
30'	The students will perform some short, improvised roleplays about the conquest, that will be recorded.	Having time and a new resource has boundless possibilities. The students can test everything they want about the resource and make incredible products.	- Digital projector
10'	The teacher will show these recorded roleplays (there is no need to upload them to YouTube).	This is the most important part of the lesson. They show, they share and they learn, being this process so rewarding for them.	

LESSON: 6 (Kahoot – Through the years)

DATE: 25/05/2023

TIMING	PROCEDURE	I DO IT BECAUSE	AIDS AND MATERIALS
	(Exercises, activities, social tasks)		
	(Skills)		
20'	The students will do a Kahoot about the evolution	An example is the best way to show a new resource. The	- Students' chromebooks
	and postconquest history of the Canary Islands.	students can see how it is done and take some ideas.	- Teacher's laptop

35'	The students will create their own Kahoot about the	Having time and a new resource has boundless possibilities.	-	Digital projector
	same topic.	The students can test everything they want about the resource		
		and make incredible products.		

LESSON: 7 (Tinkercad – Canary Islands) DATE: 26/05/2023

TIMING	PROCEDURE	I DO IT BECAUSE	AIDS AND MATERIALS
	(Exercises, activities, social tasks)		
	(Skills)		
55'	The students will create 3D models of the islands,	Having time and a new resource has boundless possibilities.	- Students' chromebooks
	divided in the following way:	The students can test everything they want about the resource	- Teacher's laptop
	- Tenerife	and make incredible products.	- Digital projector
	- Gran Canaria		
	- Fuerteventura, Lanzarote and La Graciosa		
	- La Palma, El Hierro and La Gomera		

LESSON: 8 (Google Slides – The Project)	DATE: 07/06/2023
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TIMING	PROCEDURE	I DO IT BECAUSE	AIDS AND MATERIALS
	(Exercises, activities, social tasks)		
	(Skills)		
15'	The teacher will show a brief presentation made	An example is the best way to show a new resource. The	- Students' chromebooks
	with Google Slides, where there are the four	students can see how it is done and take some ideas.	- Teacher's laptop
	periods shown:		- Digital projector
	- The Guanches		
	- The Conquest		
	- Through the years		
	- Canary Islands nowadays		

40'	Each group will choose one of the previous topics	They have to overcome the difficulties and work together in	
	and will create their own presentation.	order to make the best presentation possible. The teacher will	
		be revising, advising and cheering the students up, so they stay	
		motivated. It is a great way to incentive the autonomous	
		collaborative work.	

LESSON: 9 (Google Slides – Social Task)	DATE: 08/06/2023
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TIMING	PROCEDURE (Exercises, activities, social tasks) (Skills)	I DO IT BECAUSE	AIDS AND MATERIALS
55'	The students will work on their presentations, paying special attention to the chosen information, the selected pictures and the aesthetics.	They have to overcome the difficulties and work together in order to make the best presentation possible. The teacher will be revising, advising and cheering the students up, so they stay motivated. It is a great way to incentive the autonomous collaborative work.	 Students' chromebooks Teacher's laptop Digital projector

LESSON: 10 (Google Slides – Social Task)	DATE: 09/06/2023
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TIMING	PROCEDURE	I DO IT BECAUSE	AIDS AND MATERIALS
	(Exercises, activities, social tasks)		
	(Skills)		
55'	The students will finally show their work by	The students can reflect, compare and learn about their work	- Students' chromebooks
	making the presentations.	and the other groups' works. This reflection is the most	- Teacher's laptop
			- Digital projector

	significative part of the Didactic Unit, because they become	
	aware of what have they done, as well as what have they learnt.	

Rubrics

Evaluative aspects: Contents	Insufficient (1)	Adequate (2)	Remarkable (3)	Outstanding (4)
The student understands the evolution of the Canary Islands, placing correctly each period.	The student does not know how the Canary Islands have evolved, neither when each period has happened.	The student has a vague idea about the process, but stills not knowing when each period has happened.	The student understands mostly the evolution, but has some difficulties while ordering the different periods.	The student perfectly understands the evolution of the Canary Islands, and is able to place correctly each period.
The student knows the meaning of the mentioned vocabulary.	The student does not know any of the words.	The student knows some of the words.	The student knows most of words from the vocabulary.	The student domains all of the words without a mistake.
The student is able to tell the Canary Islands history in a coherent way with their own words.	The student is completely unable to tell the history of the islands.	The student is able to tell the history of the islands, but having many mistakes and missing points.	The student can tell the history of the islands, missing some points.	The student is able to properly tell the Canary Islands history.

Evaluative aspects: Language Insufficient (1)	Adequate (2)	Remarkable (3)	Outstanding (4)
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The student uses the present and past tenses when it is required.	The student is not able to differ between both tenses.	The student understands the difference between both tenses, but stills making many mistakes.	The student can use both tenses with few mistakes.	The student uses both tenses when it is required without any mistake.
The student uses "there is/are" and "there was/were" when it is required.	The student is not able to differ between both tenses.	The student understands the difference between both tenses, but stills making many mistakes.	The student can use both tenses with few mistakes.	The student uses both tenses when it is required without any mistake.
The student is able to make comparisons, and to express a superlative adjective if it is necessary.	The student is unable to use comparatives or superlatives adjectives.	The student has mistakes related with the short and long adjective rules, as well as when to use comparatives and superlatives.	The student has mistakes related with the short and long adjective rules, or when choosing comparatives and superlatives.	The student is able to make comparisons, and to express a superlative adjective with almost no mistakes.

Evaluative aspects: Digital <u>competence</u>	Insufficient (1)	Adequate (2)	Remarkable (3)	Outstanding (4)
The student is aware about how to treat the personal information on the internet. They use the Internet in a safe way.	The student is completely unaware about the safely use of the Internet.	The student is not very careful while on the Internet or using personal information.	The student is careful while on the Internet or using personal information, but still not paying attention about the content they use for their work.	The student is aware about how to treat the personal information on the internet. They use the Internet in a safe way.
The student has good domain of the different resources shown, in order to create content.	. The student is unable to use any of the resources to create content.	The student poorly domains a few resources.	The student has a poor domain of many resources or a strong domain in a few.	The student has a strong domain of most of resources for content creating.
The student is creative and original, able to use the different tools for an	The student poorly domains the resources and does not contribute with creative ideas.	The student has some creative ideas to contribute to the work.	The student is creative with the different resources.	The student is curious and has reach a great domain of many of the tools and resources, becoming more

improvement of the work.			creative and innovator than required.
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Source: Prepared by the author.

2. Annex 2: Previous knowledge survey

	I know how to search information	I can create my own	I use digital tools and resources during my lessons, and I work collaboratively with	I make a safety use of all these digital tools	I'm able to solve problems or challenges in many ways using the ICTs. I also make use of programming and
What's your grade?	on the Internet.	documents, videos, etc.	my classmates.	and resources.	robotic knowledge.
5th Grade	5	4	4	3	3
5th Grade	3	4	3	5	3
6th Grade	4	4	4	3	4
6th Grade	4	3	4	3	3
6th Grade	5	4	4	3	3
6th Grade	5	4	4	3	3
6th Grade	4	4	3	3	3
6th Grade	3	3	3	3	3
5th Grade	4	4	5	5	5
5th Grade	5	3	3	4	4

Choose the tools you know:
Presentation software (Microsoft Power Point, Google Presentations, Libre Office, etc.)
Google Classroom
Youtube, Google Classroom, Text software (Microsoft Word, Google Docs, Libre Office, etc.), Presentation software (Microsoft Power Point, Google Presentations, Libre Office, etc.), Tinkercad, tiktok istagram
Youtube, Google Classroom, Text software (Microsoft Word, Google Docs, Libre Office, etc.), Presentation software (Microsoft Power Point, Google Presentations, Libre Office, etc.), tik tok
Youtube, Google Classroom, Presentation software (Microsoft Power Point, Google Presentations, Libre Office, etc.), Tinkercad, tik tok
Text software (Microsoft Word, Google Docs, Libre Office, etc.)
Text software (Microsoft Word, Google Docs, Libre Office, etc.)
Text software (Microsoft Word, Google Docs, Libre Office, etc.)

Youtube, Google Classroom, Tinkercad, tiktok Youtube, Google Classroom, Text software (Microsoft Word, Google Docs, Libre Office, etc.), Presentation software (Microsoft Power Point, Google Presentations, Libre Office, etc.), Tinkercad, Collaborative work with G Suite

Write about the canarian natives (guanches):	Do you know when & how the islands were conquered?	Can you say an important writer or musician?	Have you visited any museum about canarian history?	Do you think we should give more importance to our history by, for example, creating more museums or learning more in the school?
yes	no	yes	Yes, many of them!	yes
			Yes, some of them!	
		quevedo	No, I haven't.	yes
que son antiguos	NO	Quevedo	Yes, many of them!	si
los guanches son antiguos	no	quevedo	Yes, many of them!	si deberia haber mas importancia
los guanches son nuestros antepasados		quevedo	Yes, many of them!	no se
fueron nuestros ancestros		quevedo	Yes, some of them!	yes
guanches		quevedo	Yes, many of them!	Ni idea
que se hablaban por dibujos	no	Eloisa	Yes, some of them!	si
			Yes, some of them!	Teacher no se

Average:	4,2	3,7	3,7	3,5	3,4	3,7
Av. 5th graders:	4,25	3,75	3,75	4,25	3,75	3,95
Av. 6th graders:	4,166666667	3,6666666667	3,6666666667	3	3,166666667	3,533333333
Standard derivation:	0,788810638	0,483045892	0,674948558	0,849836586	0,699205899	0,735402153
SD 5th graders:	0,957427108	0,5	0,957427108	0,957427108	0,957427108	0,825577947
SD 6th graders:	0,752772653	0,516397779	0,516397779	0	0,40824829	0,628810225
Variance:	0,622222222	0,233333333	0,455555556	0,722222222	0,488888889	0,540816327
Var. 5th graders:	0,916666667	0,25	0,916666667	0,916666667	0,916666667	0,681578947
Var. 6th graders:	0,566666667	0,266666667	0,266666667	0	0,166666667	0,395402299

Source: Prepared by the author.

3. Annex 3: Field Journal

The Museum of Canary Islands History

Field Journal

Session	Date	Description	Notes
1	12/05	Google Forms - Previous knowledge	Not answered by all
2	17/05	Genially - Grammar	Changed to Google Slides
3	18/05	Liveworksheet - Vocabulary	
4	19/05	Canva – The Guanches	
5	24/05	Youtube – The Conquest	
6	25/05	Kahoot – Through the years	
7	26/05	Tinkercad – Canary Islands	Session suspended
8	07/06	Google Slides – The Project	
9	08/06	Google Slides – Social Task	
10	09/06	Google Slides – Social Task	
11*	14/06	Revision	Extra session to revise

*This is an extra session.

1st Session

The didactic unit starts with a brief explanation of it: content, vocabulary, grammar, digital resources and the final project. After that, I tell the students to take their chromebooks, because we need to make an initial survey.

The survey is explained and they begin to fill it. During this process, there are many questions, especially those about language. At the end, despite three students that did not come to the school that day, there are just 10 answers, meaning that some students have forgotten to save the answers when finishing the survey.

There are two important difficulties detected today: the one related to the English level of language and the other related to attention instead of making things quickly. Nonetheless I have gathered enough information to analyse and make an accurate starting point.

2nd Session

Due to lack of time, this session suffered a change. I decided to use Google Slides instead of Genially, so the students can get into it earlier. I show the grammar in a more traditional way, reviewing the previous grammatical content. Then, I introduce Google Slides briefly.

Surprisingly, most students do not find hard the grammar and assimilate it quickly, in spite of the difficulties they showed during the first session. However, the two students with a curricular adaptation require a more customized and individual explanation, specially one of them.

3rd Session

During this session, the new vocabulary is introduced with a mind map on the whiteboard. After that, the students take their chromebooks and make a Kahoot about the vocabulary and grammar seen twice.

The first time they do it in groups, the same groups that are going to make the final project. This is a way to start encouraging the collaborative work. After that, the second time is individual, so I can detect the possible mistakes of each student.

Here I find the first breach between 5th and 6th graders. The last year students obtained better results than the others, which is supposed to be normal.

4th Session

I made an infographic in Canva to show a summary of the Guanches and their culture. Basing my explanation with the infographic, I extend the content talking about how the natives lived, what they ate or how they were organized.

The students were paying attention, but, unfortunately, there was no time to make an infographic with Canva by themselves.

5th Session

I display some videos about the Conquest. Those videos are an animated series that shows perfectly the different aspects of Canarian history, from the Guanches to the recent times. I just choose the chapter where the conquest of Tenerife is explained.

I have been disappointed here, I should admit. I thought it would generate interest among the students as well it did it to me during my childhood, but it did not. Many students were getting bored during the session, and showed little interest on Youtube or the possibility to make their own videos.

6th Session

This session has been successful, especially after the bitter experience before. There is not much to tell; this group loves Kahoot, which is always a motivating resource for them. I follow the steps I did with Liveworksheets (first time in groups, second time individually), after making a timeline on the whiteboard to show how the islands have evolved.

The results are also a repetition of Liveworksheets'. 6th graders obtain better results again, except for one skilled student from 5th grade. Once again, the results are the ones expected.

7th Session

This session is suspended for external reasons. There was a special activity in the school, and the group was not allowed to miss it. Nonetheless I am not so worry about it, because they domain Tinkercad, and this unit content is the easiest one.

8th Session

Finally, we start the project. Each group receive one of the four topics (Guanches, Conquest, Though the years and Canary Nowadays), and start preparing their presentations with Google Slides. I just help them with some suggestions or guiding them if I find they are so lost.

9th Session

To start the session, I get deep into Google Slides and I show the students some ideas to improve their works. After that, the session continues as it was the previous one: each group is working about their topics and I just revise and suggest some enhancements.

10th Session

The students start showing their presentations group by group. Here I find a huge difficulty for some of them: they are too shy to speak in public. A few of them even speak at all. In addition, I find that there is non-contrasted information, or simply a copy-paste of information.

Despite that, one of the 5th graders groups stands out from the rest. They did a remarkable work here, achieving a better presentation than their older classmates.

11th Session (extra)

Due to the kind of mistakes made in the presentations, I decided to spend another session just to make some corrections. They change some parts and put better information.

Source: Prepared by the author

	Contents Item	Contents Item	Contents Item	Contents	Language Item	Language Item	Language Item	Language
Students	1	2	3	Total	1	2	3	Total
1	3	2	2	2,333333333	1	2	1	1,333333333
2	4	3	3	3,333333333	3	3	2	2,666666667
3	3	3	2	2,666666667	3	4	3	3,333333333
4	2	2	2	2	2	3	2	2,333333333
5*	2	2	2	2	1	2	1	1,333333333
6	3	3	3	3	3	3	2	2,666666667
7	3	2	3	2,666666667	2	3	2	2,333333333
8	3	3	2	2,666666667	2	3	2	2,333333333
9	3	4	3	3,333333333	4	4	3	3,666666667
10	3	3	2	2,666666667	3	3	2	2,666666667
11	3	3	2	2,666666667	2	3	2	2,333333333
12	2	3	2	2,333333333	2	3	2	2,333333333
13	3	3	2	2,666666667	2	3	2	2,333333333
14*	1	2	1	1,333333333	1	2	1	1,333333333
15	3	3	2	2,666666667	2	3	2	2,333333333
16	3	4	3	3,333333333	3	4	3	3,333333333
17	3	3	2	2,666666667	2	3	2	2,333333333
18	3	3	2	2,666666667	3	3	2	2,666666667
Total:	2,777777778	2,833333333	2,222222222	2,611111111	2,277777778	3	2	2,425925926
5th grade:	2,6	2,7	2,1	2,4666666667	2,1	2,8	1,8	2,233333333
6th grade:	3	3	2,375	2,791666667	2,5	3,25	2,25	2,666666667

0,43081761

0,683006536

0,352941176

0,352941176

0,626484976

4. Annex 4: Evaluation results

0,418300654

Variance

0,382352941

0,300653595

Var. 5th	0,488888889	0,455555556	0,32222222	0,464367816	0,988888889	0,4	0,4	0,736781609
Var. 6th	0,285714286	0,285714286	0,267857143	0,346014493	0,285714286	0,214285714	0,214285714	0,405797101
Standard								
derivation	0,646761667	0,618346942	0,548318881	0,656366978	0,826442095	0,594088526	0,594088526	0,791508039
SD 5th	0,699205899	0,674948558	0,567646212	0,681445387	0,994428926	0,632455532	0,632455532	0,858359837
SD 6th	0,534522484	0,534522484	0,51754917	0,588229966	0,534522484	0,46291005	0,46291005	0,637022057

DC Item	DC Item	DC Item		
1	2	3	DC Total	Total
3	3	2	2,666667	2,111111
3	3	3	3	3
3	3	2	2,666667	2,888889
3	3	2	2,666667	2,333333
2	2	2	2	1,777778
3	3	2	2,666667	2,777778
3	3	3	3	2,666667
3	3	4	3,333333	2,777778
3	2	3	2,666667	3,222222
3	3	4	3,333333	2,888889
3	3	3	3	2,666667
3	3	2	2,666667	2,444444
3	3	3	3	2,666667
2	2	2	2	1,555556
3	3	4	3,333333	2,777778
3	3	4	3,333333	3,333333
3	3	3	3	2,666667
3	3	2	2,666667	2,666667
2,888889	2,833333	2,777778	2,833333	2,623457

2,8	2,7	2,8	2,766667	2,488889
3	3	2,75	2,916667	2,791667
0 104575	0 1 47050	0 (52505	0.000452	0 4700 41

0,104373	0,147039	0,035393	0,292433	0,472241
0,177778	0,233333	0,844444	0,391954	0,567291
0	0	0,5	0,166667	0,308099
0,323381	0,383482	0,808452	0,540789	0,687198
0,421637	0,483046	0,918937	0,626062	0,753187
0	0	0,707107	0,408248	0,555066

Source: Prepared by the author

5. Annex 5: Example of a final product



Tenerife:)

the canary islands have changed a lot during the reach of the conquest in the Tenerife statues of the guanches have been placed in candelaria, there is also the dragon which is a very important tree in icod de los vinos.



Gran Canaria

Gran canaria is the second island of the canary map gran canaria is very colorful and very pretty and beautiful.



Lanzarote

Lanzarote is a very beautiful and very special island. The houses are white.

The beaches are white sand, who I think made the law in Lanzarote that all houses be white and that boy's name is Cesar Manrrique even though it is the 3rd island.



La palma

In la palma last year and a couple of months the

bolcan de la palma

and took many parts of t

here as cut cup

Fuencaliente and many more places



Fuerteventura

Fuerteventura is a Spanish island in the Canary Islands archipelago, belonging to the Macaronesia region, located in the Atlantic Ocean, 97 km from the northwest coast of the African continent. On May 26, 2009, it was declared a biosphere reserve in its entirety by Unesco.



El hierro

the island of hierro is very beautiful there are not many visitors but there are more than in la graciosa ,there is also a very important tree ,that is a tree that is lying down.



La Gomera is one of the smallest islands and also one of the most beautiful due to its views of the sea.

la gomera



La Graciosa

La Graciosa is highly recommended for its beaches since it is one of the islands with the best views of beaches and also the smallest with a town of 200 inhabitants.



Aqui acaba la presentación de las islas canarias

que se ha terminado.

gracias por su atención aram garcia

De

Source: Prepared by the author