

Digital Competence and CLIL: The Use of WebQuests in Bilingual Education

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Abstract | This paper discusses the use of WebQuests as an activity to combine competency-based learning and digitalization in a CLIL context through social tasks. In the 21st century, people need to use the knowledge they acquire in multiple scenarios. Thus, the educational system must provide learning contexts where students develop competences so that they are able to apply the knowledge they need in a culturally heterogeneous world. Integrated learning advocates the use of social tasks in bilingual scenarios. In order to solve a problem or explore an issue while creating a specific learning product, students connect different types of knowledge and thus acquire a more contextualized perspective of learning as a socially relevant activity. This kind of learning can be perceived as a *bridge* between the students' educational context and daily lives. The digitalization of education is crucial for understanding how society advances and works as many of the jobs that appear in the future will require digital literacy. In this paper, an example of a WebQuest in a CLIL class in Spain is presented as a model for competency-based learning and digitalization through a social task.

Key words | key competences, competency-based learning, social task, digitalization, CLIL and WebQuests

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1. Introduction

Today it is known that people learn better when their minds, emotions and bodies interact in the learning process. Knowledge is constructed “in society” and therefore learning becomes a long social process. It is also believed that a competent person must analyze and diagnose complex situations, must act in sensible, flexible and creative ways, and judge the situations they encounter in order to make the right decisions.

In the digital era, students must have capacities that allow them to construct their own future. They have to communicate what they know and use their knowledge in a critical and creative way. This perspective calls for teaching and learning processes with more curricular integration. Subjects cannot be taught as isolated chunks of a curriculum. Learning must be contextualized and related with the outside world. Content and Language Integrated Learning must be more purposeful so that students can use what they learn at school in their daily lives. According to the European goals set (ET2020), the Key Competences do not only represent a *radical* change of the concepts of knowledge and the learning process, but also a way to justify a new approach to the learning needs that our current society demands this century.

If CLIL is to be related to key competences and digitalization, CLIL curricula must move towards situation-based learning (Pérez Gómez; Schank). Teaching a subject in English must provide students with the right strategies, conceptual maps and schema which lead to successful learning. Nowadays, this cannot be done without the use of ICT, because it is part of students' lives outside the school, and a curricular system cannot be created without taking into account the instruments students use on a daily basis. It cannot be forgotten that the majority of current jobs necessitate pragmatic digital competence. Therefore, it is the responsibility of the school system to provide digital education.

In relation to the above, the following elements must be highlighted:

- Students construct their own knowledge. They must make it real with coherent and practical activities;

- They have to participate actively;
- They have to learn with authentic tasks (of psychological and logical significance);
- They must learn by cooperating with each other. Cooperative learning is an essential part of classroom practice;
- They must develop and use digital competences as much as possible.

In practical terms, CLIL methodology needs authentic tasks that can be done in a cooperative way by using ICT purposefully. For this reason, a social task with a WebQuest meets all the requirements for carrying out competency-based learning.

2. Competency-Based Learning and Digitalization

According to the Europe 2020 strategy (ET2020), there are two main aims in the methodology of 21st century education: competence learning and digitalization. For the development of the first, the implementation of the key competences through new educational approaches has been essential. In the case of digitalization, a change of concept has occurred which implies the transition from a general use of ICT to a specific use of the new IT technologies applied to educational goals. Digitalization thus implies the use of ICT within an educational goal related to competency-based learning. It does not only mean using hardware, but also using software for specific learning situations. Those simulated learning situations will become real in students' present and future lives. In section 2.2., a clear example of how teachers and learners can take advantage of specific tools that foster learning will be shown. The integrated nature of this learning procedure also makes it useful for extra-curricular goals.

2.1. Key Competences: Social Tasks

According to D'Angelo, Luengo and Bazo, a social task consists of solving a situation or a problem that can be real, fictional or imagined. A social task generally implies a dilemma that must be

dealt with through work on a sequence of activities. The level of difficulty increases as the task progresses, which makes it challenging and interesting for learners.

It is difficult to develop the key competences without the use of contextualized activities, and that is an aspect that acquires even more relevance when a teacher's objective is to design, plan and implement a social task. The latter can be understood as a project that is carried out at the end of a didactic unit or learning sequence where the learners put into practice what they have learned in prior sessions.

One of the advantages of social tasks is that in some cases what is originally planned as a fictional situation can actually be used in real-life problem solving. For example, students may be asked to create a tourist guide that contains information about the most interesting places in a city. Once the guides are finished, learners can choose the best three which may then be sent to the City Council.

Tasks of this type allow learners to go beyond what is traditionally taught and the means by which it is done so. According to D'Angelo, Luengo and Bazo (20), decontextualized exercises were the core of didactic programs for a long time. For many learners, the absence of any real aim or connection with their motivations or contexts means boredom, lack of interest, and most importantly, no meaningful learning. But, by using social tasks in the classroom, the learning process is more fully developed because, apart from the content and language, learners acquire strategies and skills so they develop essential competences for their present and future lives as students, professionals and citizens. The versatility of this learning process is beneficial for learners and can be used in any subject. Moreover, integrated social tasks can be designed to foster collaboration among teachers of different subjects and to encourage more meaningful competency-based learning.

Another basic characteristic of a social task is its level of adaptability. Three types of curricula can be taken into consideration and worked upon. According to D'Angelo, Luengo and Bazo (53), it has been proved that the integration of schools, families and community in the

teaching-learning process guarantees academic success. For this reason, the combination of formal and informal learning is really necessary. Without work on the informal *curriculum* learners cannot have complete learning experiences as formal learning only represents part of the use of linguistic functions (D'Angelo and Rusinek 48). As members of the educational community, families should be present and participate in the learning process of their children. The same can be said of the wider community. The number of possibilities are unlimited; for example, students can create final products that could contribute to social welfare, and members of the community can enrich the learning experiences by participating in different activities which make the "outside world" more accessible for learners as will be illustrated in the task below.

With regard to the acquisition and development of the key competences, linguistic communication as well as social and civic competences are an intrinsic part of any social task. This is because the final product made by learners has a clear social significance. Moreover, during the creation process, group dynamics are required, which is where cooperative work acquires more relevance. Teamwork is vital for the achievement of objectives that can be put into practice either in learning situations or in real life.

The training and improvement of social abilities requires constant work and teacher planning. The use of different social tasks in a didactic program helps to systematize cooperative work and account for the comprehension of different group roles in relation to the type of work, the fulfilment of common goals, and the development of other key competences according to learner needs and characteristics. Tasks which foster this type of cooperation between learners enable them to work together and support each other. When students explain parts of the task to each other, they enter the Zone of Proximal Development (Vygotsky, 1978) which makes them less reliant on the teacher and affords them more autonomy. This in turn contributes to the development of a sense of initiative and entrepreneurship as learners make their own decisions about the work and learn how to apply self-regulation to their learning process by following the guidelines and objectives proposed by the teacher.

D'Angelo, Luengo and Bazo (104) highlight what teachers should do when planning a social task:

- Check if what is planned really constitutes an authentic task;
- Identify linguistic objectives and content objectives included in the solution of each task;
- Create a sequence of activities in the task;
- Encourage the use of different contexts, registers, etc.
- Check if the linguistic activities that lead to the final solution of the task are varied;
- Check if the linguistic exercises are used to reinforce specific aspects that can be considered necessary;
- Ensure each learner plays interactive roles (among peers; with the teacher and with the rest of the class) during the process of implementing the task;
- Ensure there is teamwork.

2.2. Social Tasks and Digitalization: WebQuests

The relationship between competences and digitalization is considered important in many educational contexts. First of all, digital competence deals with the digital *world*, which implies the acquisition and development of digital skills, procedures and knowledge. Secondly, sources of information nowadays are diverse and many come from the Web. Thirdly, the appropriate use of the Web is considered as *an instrument* to obtain and apply knowledge and competences at the same time (Francisco Déniz 135).

Smart technologies cannot only be considered as vehicles that transport information. Not only do they do this, but they also represent a challenge for human beings in how to process and express information. Pérez Gómez states that “human beings elaborate the software, the platforms and the networks that finally program and set their own lives” (34). That is why the use of WebQuests as a final social task in CLIL units is proposed here.

WebQuest creator Bernie Dodge defines a WebQuest as a *guided search on the Internet*. In other words, it is a set of teaching-learning activities based on the use of the Internet. It is a resource that encourages students to investigate, compile, analyse and transform information obtained from the Web (Area Moreira 7). In addition, WebQuests promote cooperative learning and self and group organization.

Three types of WebQuests can be identified – Mini Webquest, Treasure Hunt and WebQuest:

- Mini WebQuest: This is a reduced version of a WebQuest (see below). It is very simple and has the advantage that students can normally solve it in a one-hour class.
- Treasure hunt: This type of WebQuest includes a series of questions and a list of webpages where the students find information to answer the questions. It also includes the final “big question” where the students incorporate all the knowledge they have acquired during the learning process.
- WebQuest: This is the most common type and the one that is proposed in this paper. It has the following parts:
 - a) Introduction: This contains elements that encourage students to reflect on the topic and the information that should be found.
 - b) Task: This includes a clear explanation of what students should present at the end. The information to be gathered must be clearly explained, as well as the structure that must be followed in order to achieve the final goal.
 - c) Process: This is what students have to do, the activities they should carry out and the webpage links they should visit.

- d) Resources: Several webpages students need to consult are included, as well as a useful bibliography for the search, etc.
- e) Assessment: This states how students will be assessed (instruments, criteria, standards, etc.).
- f) Conclusion: This is where students reflect on the work done.

The benefits of using WebQuests are numerous (Domingo Coscollola 24). They may develop intercultural knowledge and understanding, as well as intercultural communication skills when contexts for the social tasks are taken from different cultures and parts of the world. They may also improve language competence and oral communication skills, multilingual interests, and attitudes such as when students encounter situations where they have to use their linguistic repertoires to explain to others the information they have found on the Web. Moreover, they can provide opportunities for students to study content through different perspectives they find in the Webpages they explore. In addition, students will have more contact with the target language of the WebQuest. WebQuests do not require extra teaching hours because they can be done using the Internet outside the classroom. They diversify methods and forms of classroom practice and increase learners' motivation and confidence in both the foreign language and the subject being taught through the personalisation of the guided search on the Internet.

3. A CLIL Social Task with WebQuest – *Back in Time*

The following didactic unit has been created for the subject of CLIL Social Sciences for upper levels of primary and lower levels of secondary education. This is due to the fact that the level of difficulty and the number of possibilities that the social task offers can vary depending on the group of learners that participate in it.

Below is a complete description of the sections that constitute the social task. It follows the model proposed by the Faculty of Education of the University of La Laguna in relation to the

recommendations suggested by the current Law for Education in Spain (LOMCE). It is important to highlight that this CLIL social task has been developed through the design of a WebQuest having in mind the development of learners' digital competence. This is explained in the following section.

3.1. Introducing the Social Task

Here, students will have their first contact with the CLIL social task. They will be introduced to the topic and become familiarised with one of the characters that will guide them in the teaching-learning process. The first activity is a Warm-Up about the Middle Ages. Students watch a video that includes a review about important facts that happened in this historical period and then in groups discuss the chart on the right (see Fig. 1 below).

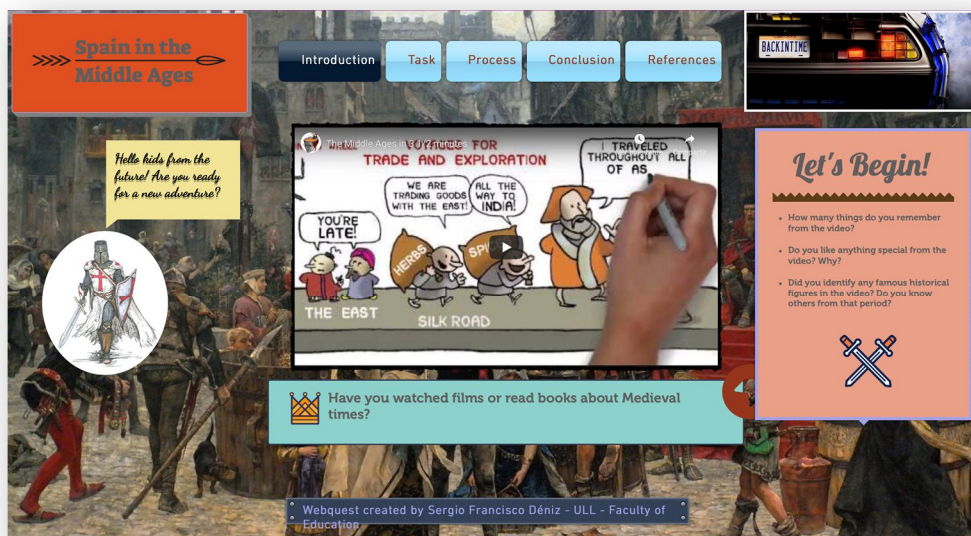


Figure 1. Home Page of the Social Task¹

3.2. Objectives

Three main objectives were planned (see Fig. 2 below).

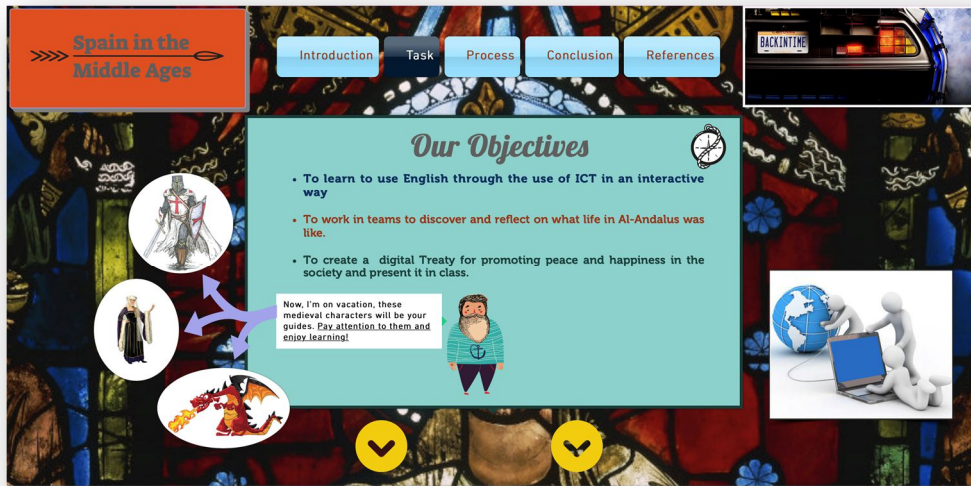


Figure 2. Objectives included in the Task

- To learn to use English in an interactive way through the use of ICT. Here contextualised learning of English is fostered which is why it is connected to one of the main challenges of our current society, that is, the correct management of the new technologies by young people. Through the WebQuest students receive guidance and learn how to search for reliable information. In this case, the choice was the use of videos that contribute to developing audio-visual skills.
- To work in teams to discover and reflect on what the life in Al-Andalus was like. Cooperative groups are an essential factor for achieving any goal proposed in a social task. Thus, it is important that groups understand that each individual will have a specific role to play. It is known that while implementing cooperative learning, some students will tend to work individually without having the group's interest in mind. Thus, instructions have to be clear about how the task must be carried out. Students may experience some difficulties in the learning process because the topic or the activities themselves are very challenging, but as a group they should be encouraged to find the best solutions.

- To create a digital treaty for promoting peace and happiness in society and present it in class. Through the projection of the several videos and completion of the activities related to them, students learn about life in Spain in the Middle Ages. And to conclude, the final product of the social task consists of creating a current treaty or agreement to promote social and civic attitudes. Before the final activity, the groups will reflect on how real medieval agreements worked for the society of that time and establish some conclusions.
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3.3 Description

This CLIL social task is divided into 5 sessions that are explained in detail below:

- **1st Session:** As explained in the introduction, students do a *warm-up activity* before being presented with the objectives and steps to create the final product. Later, a presentation will be made by the teacher. Here, the main objective is to guarantee that the groups understand the objectives and know exactly what to do in each session (see Fig. 3 below).

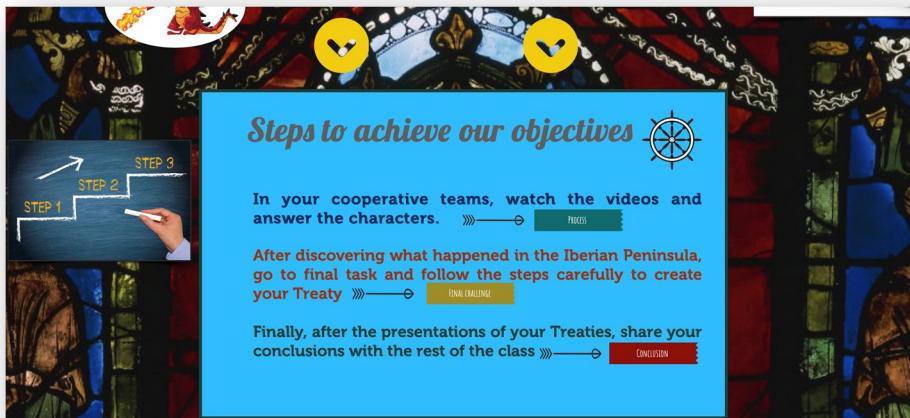


Figure 3. Steps to follow

In this first session, the members of the groups will have to answer the questions they find in the chart (see Fig. 1 above). However, to do it successfully, they will have to share their own conclusions and reach an agreement about which answers are most suitable for each of the questions (see Fig. 4 below).

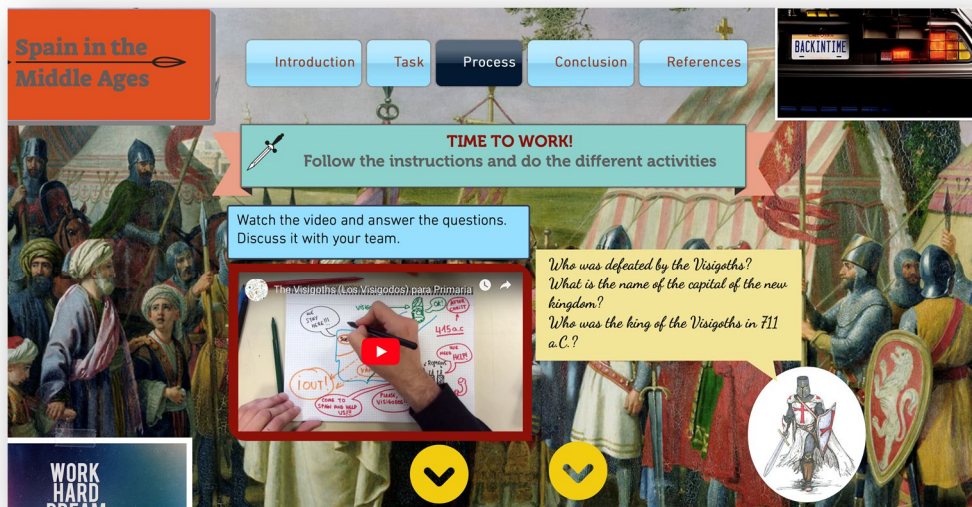


Figure 4. First activity

- **2nd Session:** To start, the groups will watch a second video and then each of the members will focus on a specific question. If students have doubts or problems, they can ask for help from members of other groups who share the same role. Later, they will share their conclusions within their own group (see Fig. 5 below).

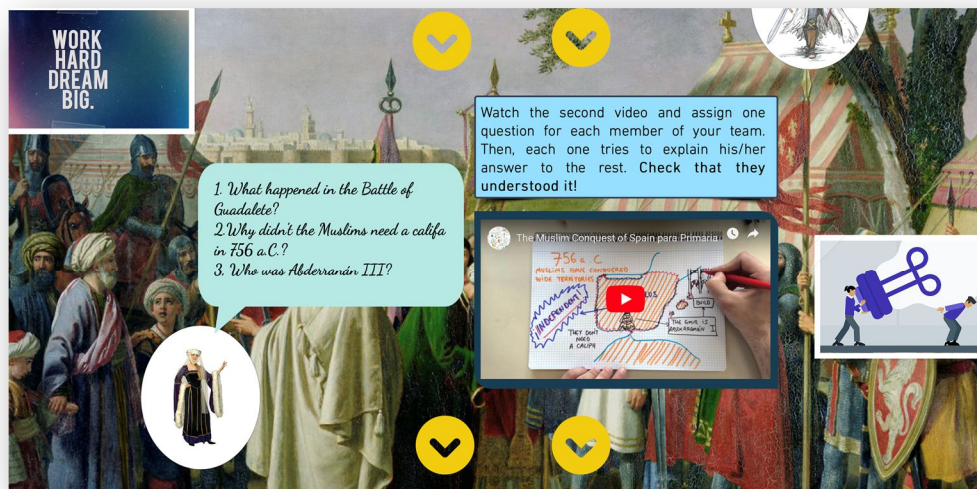


Figure 5. Second activity

After the first activity of the second session, the groups start working on the creation of the final product. In the first step, groups reflect on the society of the Al Andalus. Then, they have to contrast it with their own society. Finally, in step 2 they identify a problem that may have affected this society. This last activity helps to prepare students for the last step (see Fig. 6 below).

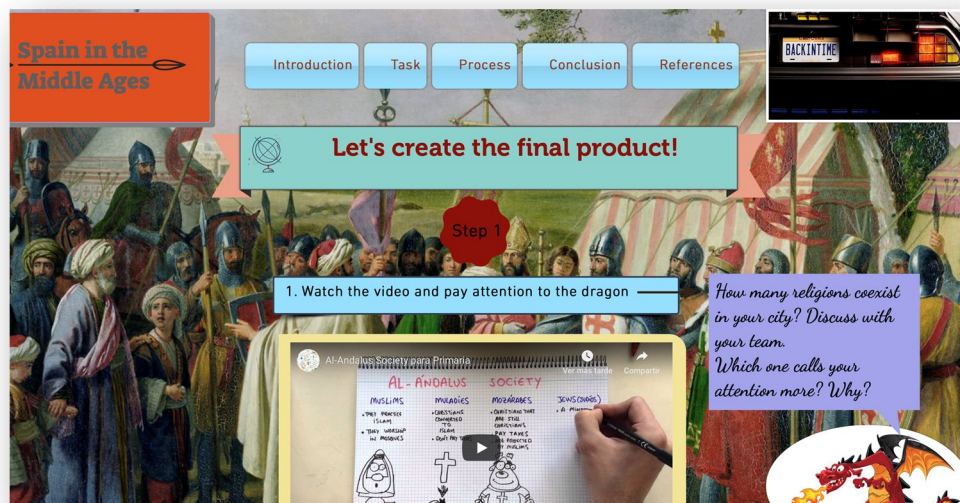


Figure 6. Step 1 for the final product

- **3rd Session:** the whole session is dedicated to the last step of the social task which is the creation of the digital treaty. Students are reminded of the treaty and the requirements they have to meet. They can use PowerPoint to design a slide that

includes the digital treaty. Once they have finished, they prepare the oral presentations for the following session (see Fig. 7 below).



Figure 7. Last step

- **4th Session:** In turn, groups present their digital treaties to the rest of the class.
- **5th Session:** To complete the social task, the groups work on the section called conclusions. This last activity is divided into three parts. At the beginning students reflect on the whole learning process individually. Then, they share their conclusions with all the members of their group. And finally, the general conclusions will be shared with the whole class (see Fig. 8 below).

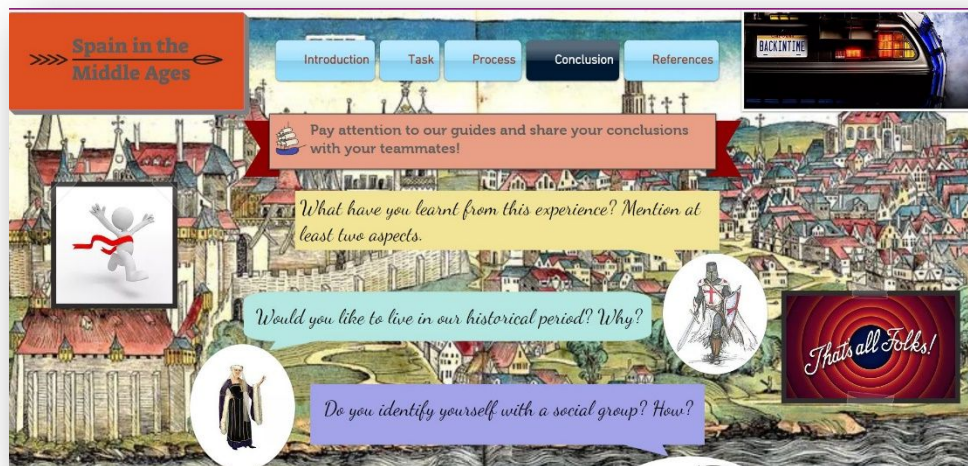


Figure 8. Conclusions

3.4. Content

A selection of content was necessary in order to design the CLIL social task successfully. In relation to Social Sciences, the following content objectives can be easily identified in the different activities students have to accomplish:

- Introduction to scientific knowledge and its application in Social Sciences.
- Selection of information from different sources.
- Use of ICT for searching, selecting, organizing and presenting conclusions.
- Development of strategies for the comprehension, memorization and critical treatment of information.
- Use of strategies for the encouragement of group cohesion and cooperative work.
- Correct use of different material and work resources.
- Planning and execution of actions, tasks and projects.
- Development of entrepreneurship (making decisions, self-confidence, critical thinking, personal initiative, curiosity, interest, creativity and innovation).
- Creation and fulfilment of different roles for the coexistence of the people in the group.
- Development and application of strategies for the resolution of conflicts through dialogue.

3.5. Context

It is important to mention that one of the benefits of including CLIL social tasks in bilingual didactic programmes is the possibility of using different learning contexts, thus enriching the teaching-learning experiences of the students. Regarding this specific case, students work in the formal context because all the work is carried out at school. Moreover, only students participate in the social task. Neither families (informal context) nor people of the community (non-formal) intervene. However, the non-formal context is partially present because the digital treaties will be posted on the social media of the school. Thus, anyone with access to the Internet can see and learn about the digital treaties produced by the students.

3.6. Contribution to the Key Competences (Spain)

This CLIL social task contributes to the acquisition and development of linguistic, digital, social and civic, learning to learn, initiative and entrepreneurship, and artistic and cultural awareness competences in the following ways:

- **Linguistic competence.** The main input students receive during the social task is through videos, so there is a special emphasis on the development of audiovisual skills. As they need to understand the instructions, tips and examples to carry out the whole process successfully, reading skills are also developed. Furthermore, students practice spoken interaction in all the activities because they discuss and reach agreements with the rest of their cooperative groups. Concerning the final product, as groups write a digital treaty and then present it, both writing and speaking skills are also practiced and developed.
- **Digital Competence.** This is one of the key elements of this CLIL social task. The WebQuest was created to guide students through the whole learning process and to show them how to look for reliable information through the inclusion of several videos. The

second part of the task is focused on the creation of a digital final product. Thus, students learn how to use ICT in different ways for real (class) purposes.

- **Social and civic competence.** Cooperative learning in all the activities is fostered by attributing different roles within the groups and highlighting their importance in achieving the different goals. Moreover, from the beginning, students reflect on medieval society in Spain. The work on this competence can be appreciated in the final product because the cooperative groups have to create a treaty that promotes peace and good relations.
- **Learning to learn.** This CLIL social task is focused on the learning of two different processes. As previously mentioned, the guided search indirectly contributes to showing students how to look for information on the Internet and distinguishing what is reliable information from what is not. In addition, students learn how to create a specific digital product. Some tips are included in the WebQuest and example.
- **Initiative and entrepreneurship.** Cooperative roles are beneficial for the development of autonomy and leadership in students. They make different decisions throughout the process and the teacher adopts the role of a guide and facilitator of learning.
- **Artistic and cultural awareness.** The integration of this competence in the task is not difficult because of the subject chosen, Social Sciences. The topic, society in medieval times in Spain is a pretext to encourage students to discover how society has evolved or not over the centuries until today. Thus, students learn to distinguish between the characteristics of medieval and modern Spain.

3.7. Resources

Finally, it is relevant to mention the last section of the WebQuest. Here, students can consult all the sources of information provided and other resources that could be helpful to complete the CLIL social task.

4. Conclusions

The new of a 'competent citizen' includes the development of different skills such as analyzing information sources, autonomous search for information, problem solving, communicating information correctly and meaningfully, and so on. This paper has shown that it is possible to integrate foreign language learning with the content of Social Sciences and the development of digital literacy through WebQuests. These can be powerful learning tools in the *hands* of teachers in bilingual education/schools, provided some ground rules for their use are observed.

From our experience of using WebQuests in different subjects, especially in Social Sciences, some issues can be proved efficient in the teaching-learning process. Cooperative learning, ICT use, problem solving, among others, have been mentioned as key elements in the design and development of CLIL social tasks.

Competency-based learning can be considered crucial for the development of CLIL methodology as it contributes to the activation of content, which is presented in a contextualized and integrated way. It is worth mentioning that the CLIL WebQuest presented in this paper supports the development of digital competence, Social Science content and linguistic competence. In this sense, language use is contextualized and pragmatic. Students can become aware of the linguistic needs and discourse to be used in the WebQuest.

Note

¹ See the complete Social Task at sfrancis121.wixsite.com/backintimedu

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