
The CLILQuest: A Type of Language WebQuest for Content and Language Integrated Learning (CLIL)

Almudena Fernández Fontecha
University of La Rioja (Spain)

Abstract. Results of recent studies on teachers’ perceptions on the provision of Content and Language Integrated Learning (CLIL) in Spain reveal a lack of methodological tools that guide CLIL teaching particularly in syllabus planning and delivery (Fernández, Pena, García, & Halbach, 2005; Fernández Fontecha, 2008b). Needs in this line are also noted in similar European CLIL settings (Räsänen, Kaasik, Mathews, Oresik, and Sentocnik, 1996; Hartiala, 2000; Llovet 2007).

With the purpose of providing an instrument for implementing CLIL, in this paper we propose the CLILQuest, a special type of Language Webquest (Koenraad & Westhoff 2003; Pérez Torres 2006) with a specific role within a CLIL setting. The CLILQuests are embedded in thematic modules. These modules are means for categorizing the declarative and procedural knowledge behind a CLIL subject. The instrument to make learners practise these types of knowledge is the CLILQuest. As an application at developmental stage, the CLILQuest should be examined in practice and its defective parts replaced or improved.

Keywords. LanguageQuests, Content and Language Integrated Learning (CLIL), CLIL syllabus; CLIL implementation, CLIL tools, Computer Assisted Language Learning (CALL).

1. Introduction

In recent years, a large body of research has examined the positive effects of Computer Assisted Language Learning (CALL) in learning the different language skills. To mention a few, positive evidence of the use of the new technologies has been found on listening comprehension (Brett 1997; Hoven 1997; Grgurović & Hegelheimer 2007; Ramírez & Alonso 2007), on reading comprehension (Chun & Plass 1997; Lin & Chen 2007; Murphy 2007), on socio-cultural aspects (Crook 1996; Herring 1996; Kramsch & Andersen 1998; Osuna & Meskill 1998), or on vocabulary learning (Chun & Plass 1996; Laufer & Hill 2000; Al-Seghayer 2001; Wood 2001; Ma & Kelly 2006).

Concerning the implementation of CALL, there exists a vast wealth of the literature that includes recommendations, guidelines, criteria, and checklists guiding CALL design (Hubbard 1988, 1992, 1996; Hémard 1997; Clifford 1998; Peterson 1998a, 1998b; Levy 1999; Chapelle 2001; Ferney & Waller 2001; Gimeno-Sanz & Davies 2002; Colpaert 2004).

For Warschauer (1996), and Warschauer and Healey (1998), CALL has evolved into three distinct phases: Behaviouristic CALL (beginning of the 1960s – end of the 1970s); Communicative CALL (end of the 1970s – 1980s), and Integrative CALL (end of the 1980s – beginning of the 1990s). As regards Integrative CALL, Warschauer (1996) refers to two examples of integration: (1) integration of language skills in a task, and (2) integration of meaningful and authentic communication into the language learning curriculum. The author notes that at least two technological developments that arise in this phase, multimedia technology and the Internet, can help achieve these types of integration.² Warschauer and

---

¹ Financial support from FEDER and the “Ministerio de Ciencia y Tecnología” through grants HUM 2006-09775-C02-02 and HUM2006-09775-C02-01/FILO is gratefully acknowledged by the author.

² As an advocator of an interpretative revision of CALL, Bax (2003) re-examines the interpretation of CALL phases given by Warschauer (1996) and Warschauer and Healey (1998) and provides some amendments and clarification. Among others, Bax’s (2003) considers that the rationale for identifying a third phase and calling it
Healey (1998) point to the fact that task-based, project-based, and content-based approaches to language learning lead to this new stage in the use of technology in L2 learning. In general, the literature supports the relationship between Task Based Language Teaching (TBLT) and CALL. A large part of the constructivist philosophy of learning is shared by both approaches. Many works have combined TBLT and CALL (Doughty & Long 2003; Skehan 2003; Ros i Solé & Mardomingo 2004; González-LLoret 2005; Hampel, 2006). However, we find very few sample experiences of the use of CALL in combination with other popular successful approaches to L2 teaching such as Content and Language Integrated Learning (CLIL)\(^3\) (Opp-Beckman 2002; Reinhardt & Isbell 2002). In fact, the link between both approaches has been very recently suggested in the literature (Pérez Torres 2006; Levy 2007; Stoller 2008).

In order to approach the provision of CLIL through the use of Information and Communication Technologies (ICTs), we put forward here a technology-enhanced framework for CLIL implementation based on the idea of the CLILQuest. The CLILQuest restricts the scope of the generic Language WebQuest to a CLIL context. In so doing, it attempts to improve CLIL implementation through a systematic use of the new technologies. As a corollary, it also serves to offer an adequate setting for CALL integration into the curriculum. The CLILQuests are integrated into a superior unit called Module, which attempts to endow L2 teaching with cohesion and flexibility.

2. The CLILQuest

2.1. CLIL and CALL compatibility

In recent studies on Spanish CLIL provision, teachers report shortcomings in CLIL methodological aspects, such as the lack of precise guidelines and instruments to implement this L2 approach adequately (e.g. Fernández, Pena, García, & Halbach, 2005; Fernández Fontecha, 2008b). Research conducted in the European context reveals the same tendency among CLIL European teachers (Räsänen, Kaasik, Mathews, Oresik, and Sentocnik, 1996; Hartiala, 2000; Llovet 2007).

CLIL and CALL are two means of enhancing foreign language education. Both may operate under the same constructivist perspective (Met 1998). CALL and, in particular, our model of CLILQuest, may enhance CLIL by providing support to most of its main features. Specifically, CALL, by means of the CLILQuest, provides CLIL assistance in the following aspects:

- Quantity and quality of foreign language exposure, and authenticity of materials: through adequate CALL activities the learner is exposed most of the time to foreign language input. The Internet facilitates the access to authentic samples of oral and written language of any sort of genre and register, whether formal or not. In so doing, it complies with Cummins’s (1984) distinction of BICS and CALP, i.e. Basic Interpersonal Communicative Skills and Cognitive Academic Language Proficiency. Furthermore, the emergence of the Web 2.0 in the field of L2 learning (Thomas 2009) allows learners to practise naturally

\(^3\) Based on the success of bilingual programmes, in which learners are exposed to the teaching of non-linguistic contents in a foreign language, in the last years, CLIL has been receiving increasing attention by many researchers and practitioners in the field all over the world (e.g. Ruiz de Zarobe & Jiménez Catalán, 2008; Dafouz & Guerrini 2009).
their L2 skills in a CLIL context while receiving actual feedback and evaluation from other learners and users.

- Visual support: CALL may integrate a wide variety of enriched visuals, e.g. graphics, conceptual maps, geographical maps, and knowledge organizers that may include animation and sound. Video can be easily integrated as well.

- Cooperative learning: CALL supports both collaborative and individual work through the resolution of tasks. E-learning and blended-learning technologies promote communication through a series of synchronous and asynchronous computer mediated communication (CMC) tools. Again, the use of Web 2.0 and technologies such as Google Wave (http://wave.google.com) are particularly valuable here.

- Language learning skills and higher-order thinking skills: by means of adequate tasks, CALL may help learners develop their language learning skills (Oxford 1990; Chamot & O’Malley 1994), as well as higher-order thinking skills (Bloom 1956; Marzano 2001).

- Motivation: many learners use the new technologies on a daily basis. The resources found on the Internet and the new modes of presenting the instruction may offer an array of possibilities for motivation enhancement.

- Contextualized language: the Internet offers learners the chance to deal with language in context, for example, through the creation of some constructivist learning environment (Jonassen 1994).

- Content accessibility: the Internet facilitates content accessibility through large databases and repositories of all type of materials. For teachers as materials developers, these web resources are extremely useful.

- Learning by doing: the new technologies may easily create the conditions for exploratory learning and problem-based language teaching. The constructivist models of learning and WebQuests are good samples of learning by doing. The postulates of constructivism and WebQuests may lend support to the development of CALL tenets.

2.2. Definition

In order to enhance CLIL appropriately, CALL requires some device that ensures systematic instruction and facilitates the detection and integration of each of the above-mentioned aspects. With that purpose in mind, and mostly based on constructivist principles of instructional design, we have adapted Koenraad and Westhoff’s (2003) model of TalenQuest to the creation of the CLILQuest.

The term CLILQuest bears a resemblance to the name of WebQuest (Dodge 1998a, 1998b; March 2000b, 2003) since like a WebQuest, a CLILQuest is a learner-centred activity based on inquiry-oriented or problem-based learning tasks that tap into the resources available on the Internet. More specifically, like a TalenQuest, or Language WebQuest (Koenraad & Westhoff 2003, Pérez Torres 2006), the CLILQuest involves the use of web-based tasks within a foreign language model. In particular, the WebQuest involves the use of web tasks in a CLIL environment.

Like the WebQuest, the CLILQuest is accomplished in a collaborative environment. Besides, it is developed through the concept of task, which encloses the main purpose of the CLILQuest. Likewise, it specifies the participants’ roles, and contains scaffolding techniques available for the learner at different parts of the process. Similarly to the WebQuest, the CLILQuest is product-oriented, i.e. learners have to create, write, plan, and obtain a product.
Within a constructivist view of the field of instructional design, the CLILQuest draws upon Jonassen’s (1994) Constructivist Learning Environments (CLEs). Like a CLE, and also the WebQuest, our CLILQuest aims at being active, constructive, collaborative, intentional, complex, contextual, conversational, and reflective. Specifically,

- The CLILQuest pursues active learning, which requires deep processing of information. Questions requiring just cut-and-paste answers do not fit into this model. March’s (2000a, 2003) idea of transformation of knowledge is the maxim to follow here.
- It encourages learners’ construction of their meaningful knowledge by activation of prior knowledge and integration of the new.
- It offers collaborative learning environments through the integration of CMC tools. It makes extensive use of computer mediated communication forms, i.e. the most traditional CMC tools such as e-mail, chat, forums, or weblog, and those which present more sophisticated features and possibilities of communication such as e-portfolios, online conferences, wikis, or whiteboarding. Jonassen (1994) views this worldwide sort of communication as underpinning the transmission of cultural learning, another factor of utmost importance for CLIL.
- It promotes the work based on goals as they are a means of activating thinking.
- It does not forget about higher-order thinking, which is one of the objectives of CLIL (Mohan 1986; Chamot & O’Malley 1994). On the other hand, allowing for higher-order thinking may smooth the progress towards achieving Cummins’s Cognitive Academic Language Proficiency (CALP).
- It embeds learning tasks in real contexts with a real-like purpose, a similar idea to March’s (2003) real world loop, against which learners are encouraged to test their newly constructed knowledge. This idea accords well with CLIL recommendations in favour of learners’ exposure to authentic language.
- Finally, the CLILQuest attempts to provoke learners’ reflection on their own processes and decisions while doing a task.

Following the language-specific models of WebQuests developed by Pérez Torres (2006) and Koenraad and Westhoff (2003), as well as Doughty and Long’s Task Based Language Teaching (TBLT) methodological principles, the CLILQuest allows the teacher’s use of Focus on Form (FonF) techniques (Doughty and Williams 1998; Skehan 2003). In addition, based on these authors, our CLILQuest is based on a meaningful use of the foreign language. The real-like contexts we define for each CLILQuest, the authenticity of the materials, the use of Web 2.0 technologies, and the real-like purpose of the CLILQuest favour this meaningful use of language.

An important principle noted by Doughty and Long is the need to consider the task, rather than the text, as the unit of analysis. Thus, in our model, the tasks within each CLILQuest become the units for measuring learners’ achievement. The teacher should evaluate both the work done in groups and the individual work carried out by each of their members. Although learners are given common roles in working groups, each learner should find his/her own individual role within each group to undertake his/her task.

Apart from this ground shared with other sources in the literature, the CLILQuest has the following distinctive features:

A fundamental part in the CLILQuest is the need to integrate it into the curriculum through a superior unit. This is an idea already noted by authors such as Hardisty and Windeatt (1989) and Salaberry (1996). Pérez Torres (2006) also refers to this integration into a broader unit as a requirement for the proper use of the WebQuest. Nonetheless, this issue is still left unsolved.
in the literature. The CLILQuest is the last step of a framework or sequence of distinct categories: *Topic*, *Subtopic*, and *Module*. This is what we call *Content and Language Processing Sequence* (CLPS) (Fernández Fontecha, 2008a). In short, by means of this structure, we set out to provide CLIL teachers with a means for systematizing the integration of both content and language before CLIL delivery. Each category of the CLPS sequence corresponds to a more concrete stage of content organization than the preceding category. The *topic* is the most abstract category of the CLPS. It is the basis for the definition of subtopics, modules, and CLILQuests. The *Subtopics* are the units of content into which the topic is divided. A crucial feature in selecting a subtopic is that it should render the essential information of the topic. At the end of topic instruction, learners are expected to have been exposed to a great deal of the topic’s most relevant information through a series of subtopics.

To provide an example, while a typical topic in CLIL could be environmental issues, some valid subtopics for this topic could be climate change, nature and biodiversity, or environment and health.

On the other hand, influenced by Martin’s (1990) notion of module, the *Module* in our model depicts a further degree of specification in content processing. It is the smallest unit of content ready for study, which is conveyed through the CLILQuests. It is a representative outline of the issues that the subtopic can approach. The main strength of the module is that it serves to categorize the contents of the subtopic by arranging them into two types of knowledge: 1. Declarative knowledge, found in the Background Knowledge Axis; and 2. Procedural knowledge, found in the Practical Knowledge Axis. These are the four types of modules profiled here:

**Background Knowledge Axis**

1. **Introductory Module:** The purpose of this category of modules is to introduce the main concepts and ideas of the subtopic. Modules of this kind must be especially motivating in this initial phase in order to draw students’ attention towards the subtopic presented. A critical characteristic of Introductory Modules is that they should activate learners’ background information on the subtopic.

2. **Core-Knowledge Module:** Some theory is introduced in each module. Nevertheless, Core-Knowledge Modules contain purely theoretical knowledge. Accordingly, they can be considered the heart of the modular structure.

**Practical Knowledge Axis**

3. **Case Module:** Case Modules develop the subtopic through concrete examples. Their main purpose is to depict the reality behind the background knowledge of each subtopic. It also bears a strong resemblance with some constructivist designs, such as case-based learning design (Oliver, 2001), where students have to apply previous knowledge to solve a specific real-like case.

4. **Awareness Module:** These modules attempt to develop the same procedural knowledge as Case Modules. Learners apply the knowledge acquired in the Background Knowledge Axis to problems related to their lives. This type of module aims to raise students’ awareness towards subtopic-specific problems. Awareness Modules are particularly important for the teaching of moral contents.

The CLILQuest is the last manifestation of the topic. The CLILQuest design involves the incorporation of the contents selected previously in the subtopic. It is the main unit of work for learners and serves to carry out the requirements of each module.

Although the models of language WebQuests developed by Koenraad and Westhoff or Pérez Torres already presuppose the integration of linguistic and non-linguistic contents, the
CLILQuest strengthens this integration by being included in a CLIL model, given the philosophy behind this approach to L2 learning. Thus, the CLILQuest emphasizes the role played by the non-linguistic content in foreign language teaching. Embedded in a module, the CLILQuest inherits the module characteristics. In that sense, through the different CLILQuests of the modular structure, the learner can practice a type of factual and conceptual knowledge along with the procedural knowledge required to get a full idea of the contents they have to learn.

Through the CLILQuest the four language skills can be approached holistically (Enright & McCloskey, 1988). However, some order can be brought to the skills which gradually emerge in the instruction. Thus, while in general in the first parts of a CLILQuest learners mostly use their receptive skills, e.g. they would have to search for information or perform some scanning or skimming; at the end of the CLILQuest, they need to make use of their productive skills in order to create the CLILQuest expected outcome, for instance, writing a report. Furthermore, our CLILQuest does not follow the typical pre- during- post- language skill structure found in Pérez Torres (2006) or Willis’s task (1996). Our CLILQuest is created around the non-linguistic content of the topic, and although it includes some necessary FonF parts, the non-linguistic content is still guiding the execution of the CLILQuest.

2.3. Components and structure

The structure that we propose for the CLILQuest simplifies the original model of WebQuest in some parts and completes it in others. It does not include the assessment rubric part of Dodge’s model because it is at a developmental stage that needs further refinement. Undoubtedly, in future developments of this model, evaluation should be necessarily incorporated. So far, this is the description of the CLILQuest structure:

- A guide section, which includes the presentation of the overall task, also called task type, and the specification of the participants’ roles. Within this section, the teacher may include an introduction of the subtopic, or simply introduce the subtopic through face-to-face communication.

- The task type is the central part of the CLILQuest. As explained in the next section, its scope is broader than that of the specific task, renamed here as quest. It may correspond to one of the constructivist learning designs found in Oliver (2001) or a mixture of them. It includes Dodge’s introduction or open-ended question, and the task itself, where the participants’ roles are specified. It opens the CLILQuest, provides learners with the necessary contextual information, summarizes the quests through which the CLILQuest is developed, and attempts to engage learners in the CLILQuest.

- A test section previous to the quest accomplishment and whose main goals are to assess learners’ knowledge about the subtopic, and to introduce the subtopic’s keywords and concepts as a Focus on Form technique. It serves to activate the learner’s background knowledge on the subtopic and to make them connect foreign language terms to their equivalent L1 terms. Along with the test section, the teacher may provide some direct instruction on the subtopic’s core topics. Although this section is placed at the beginning of the quest accomplishment, the teacher could also introduce it at different parts of the CLILQuest. Thus, in our opinion, it would be adequate to place the same previous test section of the CLILQuest or new tests at the end of the CLILQuest to assess what the learners have learned. Some questions found in this section work as FonF questions that directly address the learner’s attention towards the foreign language. Other questions are text comprehension questions. In this section, the teacher may modify the authentic input of the selected sources to adapt it to the learner’s foreign language level. Learners will
mostly focus on terminological issues, collocations, discourse markers, and other language-related aspects that may help them manage well with a specific quest.

- A development section including the different quests, which are the specific tasks through which the CLILQuest task type is developed. For each quest, the different sections are specified: the teams, the main goal(s), the intended outcome(s), a list of web resources, and a documentation part where the different scaffolds and other useful files are made available for the learners.

- The process part in Dodge’s model is covered here by the quests. Each quest can be understood as a step forward to solving the CLILQuest. The quest is a subtask with its own steps and its own outcome. Quests are undertaken either by one specific working group or by several groups. They may be sequential, i.e. all the groups may accomplish one quest after another, or simultaneous, i.e. different working groups carry out different quests at the same time. The final quest of each development section represents the conclusion of the CLILQuest; it is where all the quests converge. The final quest is usually a public exposition of results.

- The list of web resources available for each quest is carefully selected having the learner’s foreign language level in mind. The language found in the list of websites is authentic and has not been modified. The reason is that the websites are included for search purposes only. They serve to show the content behind the subtopic. In most cases, when working with these websites, the learner does not need to understand everything, but just to skim the information contained in the website or to scan data relevant to solving the task. It is through the test sections that learners work more specifically with the subtopic’s keywords and concepts in the foreign language.

- The outcomes are the tangible results of their investigation through the quest. They may be visible to the rest of learners and the teacher, or only to the teacher. Learners may be asked to comment on them in public.

- Finally, all CLILQuests may also be supported by a section of general scaffolds or web resources. This section may include search engines, dictionaries, thesauri, glossaries, templates, advanced organizers, links to the forum, online conference, or chat.

The role of the teacher is vital in each part of the CLILQuest. His/her work will consist in guiding and providing support at any time. S/he should control that each learner is doing his/her part, and that the schedule is met. Apart from the parts s/he has to design, s/he has to be aware of the moment when some kind of FonF technique should be used. Figure 1 shows the structure of the CLILQuest.
2.4. Task taxonomy

The *task type* is the heart of a CLILQuest. It contains the critical information that identifies the CLILQuest. The task type, and by extension the CLILQuest, has to share the main features of the module to which it belongs. In this section, we discuss the use of an adequate taxonomy of tasks to suit the module requirements, and describe the types of tasks attributed to each module.

Dodge’s (2002) WebQuest classification lacks consistency in the sense that the creation of the different categories does not follow any known criteria. Some tasks are more specific than others and can be subsumed within the most generic group. Dodge (2002) himself agrees on this fact in saying that “It’s likely that the task in a given WebQuest will combine elements of two or more of these task categories”; however, he does not develop a further taxonomy to include this distinction.

In Dodge’s taxonomy, we identify at least two different groups of tasks. The first group embraces tasks of the following types: retelling, compilation, consensus building, persuasion, analytical, and judgment. This group contains tasks that promote thinking skills as, for example, analysis; a lesser number of skills than the second group (e.g. consensus, persuasion, and judgment); or less sophisticated higher-order skills than those promoted in the second group (e.g. retelling or compilation). Based on these features, and to distinguish them from the tasks in the second group, we shall call them minor tasks. They can merge with the tasks of the second group.

The second group involves tasks whose solution depends on the activation and use of a larger number of skills or more sophisticated processes of higher-order skills than those triggered by the tasks in the former group. To establish a contrast with the task in the first group, the tasks in this group receive the name of major tasks. They are mystery tasks, journalistic tasks, design tasks, creative product tasks, self-knowledge tasks, and scientific
tasks. Thus, it would not be very difficult to notice that a detective may require compiling data on some investigation just as a journalist may need to find information on a particular news item. Similarly, the participants in mystery or scientific tasks may need to reach some agreement on how to solve a case or how to carry out the research; or a self-knowledge task will require the learner to analyze situations related to his/her own life. Table 1 shows our classification of Dodge’s taxonomy.

<table>
<thead>
<tr>
<th>MAJOR TASKS</th>
<th>MINOR TASKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mystery tasks</td>
<td>Retelling tasks</td>
</tr>
<tr>
<td>Journalistic tasks</td>
<td>Compilation tasks</td>
</tr>
<tr>
<td>Design tasks / Creative product tasks</td>
<td>Consensus building tasks</td>
</tr>
<tr>
<td>Self-knowledge tasks</td>
<td>Persuasion tasks</td>
</tr>
<tr>
<td>Scientific tasks</td>
<td>Analytical tasks</td>
</tr>
<tr>
<td></td>
<td>Judgment tasks</td>
</tr>
</tbody>
</table>

Table 1. Further classification of Dodge’s taxonomy of tasks.

In order to meet the specific requirements of each module, we need more generic tasks than Dodge’s major tasks. In Long’s (1998) terms, we need task types, that is to say, more abstract and superordinate categories that agglutinate specific tasks. The more generic the task type is, the better it may render the critical features of a specific type of module. In addition, a more generic category may encompass a wider variety of specific tasks to develop the contents of the module. In practical terms, this is very useful in order to alternate different specific tasks within a module as long as the general features of the superordinate category are maintained.

The tasks in Dodge’s taxonomy are instances of superior categories of task types that can be included in a more general framework. With that purpose in mind, we adopt Oliver’s (2001) classification of constructivist learning designs as an appropriate model of task types in which Dodge’s types can be embedded.

Oliver identifies four main types of designs: problem-based learning, project-based learning, inquiry-oriented learning, case-based learning, and role-playing learning. In our view, Dodge’s tasks can be taken as instances of these task types. The integration is flexible: some tasks can fall into more than one task type. In Table 2, we display the integration of both taxonomies.

Oliver’s problem-based learning design is a task type that can be present in any of Dodge’s major tasks, but specifically in journalistic, mystery, and scientific tasks. In any of these tasks, the learner needs to solve a problem that requires the activation of prior knowledge and an elaborated solution. The same three tasks can further fit into the definition of an inquiry-oriented task. This task type resembles doing real science since it requires observation, questioning, explaining, analyzing, and drawing conclusions, among other skills. Therefore, mystery and scientific tasks are preferred within this type. However, general journalists and more usually science journalists have to make use of much the same skills. A third option for this set of tasks is the case-based task type. Whether journalistic, mystery, or scientific task, the teacher may design a concrete problem situation for each of them. Learners will need to apply their prior knowledge on similar situations to the new case. The connection between the problem, inquiry, and cased task types through Dodge’s three tasks is not unusual since the two latter types are variations on the first type (Oliver 2001). As for the project-based task type, it finds two examples in Dodge’s design tasks and creative product tasks. Despite minor
differences between these two tasks, in both, learners are engaged in designing and creating new products. Before that, they will need to discuss the ideas, explore new ideas and concepts, and test them. Finally, Dodge’s self-knowledge task can be naturally associated to the role-playing task type. This type draws the attention to the learner’s affective component.

<table>
<thead>
<tr>
<th>OLIVER’S CONSTRUCTIVIST LEARNING DESIGNS</th>
<th>DODGE’S TAXONOMY OF TASKS (Further classification)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task types</td>
<td>Major tasks</td>
</tr>
<tr>
<td></td>
<td>(Any task)</td>
</tr>
<tr>
<td></td>
<td>Journalistic</td>
</tr>
<tr>
<td></td>
<td>Mystery</td>
</tr>
<tr>
<td></td>
<td>Scientific</td>
</tr>
<tr>
<td>Problem-based</td>
<td>Minor tasks</td>
</tr>
<tr>
<td></td>
<td>Retelling</td>
</tr>
<tr>
<td></td>
<td>Compilation</td>
</tr>
<tr>
<td></td>
<td>Consensus building</td>
</tr>
<tr>
<td></td>
<td>Analytical</td>
</tr>
<tr>
<td></td>
<td>Judgment</td>
</tr>
<tr>
<td>Project-based</td>
<td>Design tasks / Creative product</td>
</tr>
<tr>
<td>Inquiry-oriented</td>
<td>Journalistic</td>
</tr>
<tr>
<td></td>
<td>Mystery</td>
</tr>
<tr>
<td></td>
<td>Scientific</td>
</tr>
<tr>
<td>Case-based</td>
<td>Journalistic</td>
</tr>
<tr>
<td></td>
<td>Mystery</td>
</tr>
<tr>
<td></td>
<td>Scientific</td>
</tr>
<tr>
<td>Role-playing</td>
<td>Self-knowledge</td>
</tr>
</tbody>
</table>

Table 2. Integration of task types and specific tasks.

In this model, the relationship between Dodge’s major tasks and minor tasks is kept: minor tasks can merge with major tasks. This can only take place once these major tasks are arranged into each of the five task types of Oliver’s taxonomy.

Task types allow for a complete integration of thinking skills. Despite minor differences of taxonomy categorization, all the traditional thinking skills can take place in any task to a greater or lesser extent. If we take for instance Bloom’s (1956) taxonomy of skills, we observe that the whole set of skills, including less cognitively demanding and more cognitively demanding skills, is present in each task type. The same claim cannot be made for Dodge’s minor tasks. Some of them match just one of Bloom’s skills, e.g. the analytical task corresponds to the analysis skill. Others involve a fewer number of skills than the major tasks, e.g. consensus tasks are mostly based on the evaluation skill. Finally, other minor tasks involve less sophisticated higher-order skills than those promoted in the second group, such as retelling and compilation tasks, which only require knowledge and comprehension skills.

2.5. CLILQuest types

We may distinguish CLILQuests according to two main criteria: (1) the type of knowledge involved, and (2) the type of relationship existing between them.

Inspired by the distinction of types of knowledge put forward in Anderson and Krathwohl’s (2001) adaptation of Bloom’s (1956) taxonomy of educational objectives, we have defined four types of modules, as we have already explained above: Introductory, Core-Knowledge, Case, and Awareness Module. While Introductory Modules and Core-Knowledge Modules encourage declarative knowledge, Case and Awareness Modules involve procedural knowledge. According to these distinctions, we identify four types of CLILQuests for each of the four modules. Each type receives the name of the module to which it belongs and inherits its features. Thus, the task type of an Introductory CLILQuest serves to develop factual knowledge, the task type of a Core-Knowledge CLILQuest involves conceptual knowledge, and the task types of a Case and an Awareness CLILQuest introduce procedural knowledge.
Following Oliver’s (2001) constructivist learning designs, in some cases it is easy to establish a correspondence between one or two task types and a category of modules. This is what happens with the case-based and role-playing task types, which meet the requirements of Case and Awareness Modules, respectively. This match does not mean that other types of CLILQuests cannot be developed within those two categories of modules. If well designed, any of the four task types or a combination of them may suit the purpose of each category of modules. Moreover, in order to better engage learners in the work, they will have to play different roles in each CLILQuest.

As regards the sort of relationship that one CLILQuest has with another CLILQuest, we should say that it can be either dependent on or independent. CLILQuests depend on others are those which need the outcomes of another CLILQuest to be developed. Their input is the output of another CLILQuest. This dependency may occur between CLILQuests within modules or between CLILQuests across modules. On the other hand, in undertaking an independent CLILQuest, learners do not necessarily rely on the outcomes of another CLILQuest. Figure 2 shows the integration of CLILQuests within the modular structure.

![Figure 2. CLILQuest integration within modular structure.](image)

2.6. Sample programme: CLILQuests on climate change

At [www.clilcall.com/dokeos](http://www.clilcall.com/dokeos) we offer a sample implementation of the subtopic of climate change within the topic of environmental issues. The programme addresses Spanish

---

4 The user needs to register in order to obtain the instructions about how to enrol on the course *Climate Change* within the category *CLIL*. The website is best viewed in Internet Explorer 7.
baccalaureate learners of English as a Foreign Language. Students at this age are already familiar with the terminology of environmental issues since part of this topic has already appeared in the contents of Secondary education subjects.

As the instruction delivery mode in this implementation we have used Dokeos\(^5\), an Open Source Learning Management System (LMS) based on constructivist principles. It offers the teacher the integration of synchronous and asynchronous communication tools, such as videoconferencing, forums, blogs, wikis, chat, groups, diaries, or e-mail, within one single user-friendly interface. In our opinion, the use of this or any other LMS is a very appropriate way of displaying and delivering a programme of CLILQuests in the educational practice.

---

For each quest we specify the participating teams, the main goal of the quest, the intended outcome, the time allotted to its accomplishment, a list of web resources (if necessary), and a documentation section that encompasses scaffolds and documents required for the quest’s accomplishment. The learner may find this information in the documents folder included in the LMS toolbar. This folder also contains other general scaffolding tools useful for any CLILQuest, such as note-taking templates or lists of connective devices. For every CLILQuest, a list of reference web resources such as dictionaries or thesauri is also made available.
In order to accomplish each quest successfully, learners will need to make use of their metacognitive, cognitive, and social-affective strategies. Some of the scaffold tools designed attempt to enhance these strategies. Apart from the note-taking template, based on Cornell’s note-taking system (Pauk 1962), we have developed another template that the learners may find helpful when taking notes from the websites they have to review. They are also provided with a sample to-do list template and an event schedule planner for organizational planning. All quests are based on group work, a social-affective strategy in Chamot and O’Malley’s (1987) CALLA model. Individual work is also possible at some moments of quest accomplishment. With the purpose of expanding this collaborative work, some CMC tools such as forum and e-mail communication are made available to learners. Some quests offer Dimdim free web meeting service available at www.dimdim.com, which may host events that enhance learners’ participation.

In this programme, all the CLILQuests intend to enhance the use of all language skills. Obviously, some quests involve a higher use of specific language skills. However, most quests require the learners’ use of productive skills, such as writing and/or speaking. Prior to the production of the outcomes, learners will have practised their receptive skills at the moment of scanning and/or skimming necessary information and listening to some aural input.

In the CLILQuest within the Introductory Module, learners have to organise *The First International Youth Conference on Climate Change*. It is a product-based and inquiry task type CLILQuest where the factual knowledge behind it consists of the main terminology and specific details about the fields of environment and climate change. This CLILQuest is made up of five quests. Quests 1 to 3 are simultaneous quests carried out by different working groups; each of the quests 4 to 6 are accomplished by all teams sequentially.

The two simultaneous quests designed for the Core-Knowledge CLILQuest help the learners build on the factual knowledge of climate change that has been previously acquired.
It also helps them expand their knowledge by working with conceptual knowledge on the same topic. The task type identified for this CLILQuest is mainly of an inquiry type. The learners are keynote speakers that must take part in the previous conference. They have to do some scientific research on a specific climate change issue. Learners have to prepare PowerPoint presentations and speeches about global warming, ozone problems, greenhouse effect, and dangers to ecosystems. For that purpose they will use academic and scientific language. The conference closes with a round table on the following topic: “Do you believe in global warming?” The event can be delivered either using face-to-face or online mode via Dimdim software.

As its name implies, the task type in the Case CLILQuest is case-based. Through it learners apply the acquired knowledge to solve two concrete actual situations: Mr Achim Steiner, the current Executive Director of the United Nations Environmental Programme (UNEP), and Mr Stavros Dimas, the current European Commission’s Commissioner for Environment ask for learners’ help to solve two cases: (1) the case of the desperate journey of a mother elephant and her calf in the South African desert, and (2) the death of a polar bear in the Arctic. The four linguistic skills are practised in this CLILQuest: e.g. the learners have to watch and listen to some videos, write and speak about the resolution of the two cases and the evidence provided. There will be four different teams solving the different quests: researchers of the CSI environmental unit, scientists of the Nobel-awarded Intergovernmental Panel on Climate Change (IPCC), Greenpeace activists working in the Thin Ice project, and a team of the BBC Earth film. Figure 3 displays the description of Quest 2 in the Case CLILQuest (Case Module) of this sample programme.

The Awareness CLILQuest tries to raise the learners’ awareness of the impact that their behaviour can have on climate change. This is a case-based task type where learners have to find out their ecological and carbon footprints by making use of some ecocalculators. Later on, they have to find appropriate ways to improve the negative effect of that behaviour. They
will find out what a green home is. There are three teams working here: two working teams of eco-designers, and a group of green-living experts that will evaluate the eco-designer’s works.

3. Conclusion

Taking into account the potential benefit that the use of the new technologies may have for CLIL implementation, here we have proposed and described the CLILQuest as a key part of a technology-enhanced model of Content and Language Integrated Learning. We consider that one of the strengths of the model we propose here is the way that the CLILQuest achieves cohesion and integration into a superior unit through the structure of four modules. To be more precise, we can distinguish at least four different levels at which cohesion is attempted in this model:

- The CLILQuest portrays the essence of the module to which it belongs. It cannot be done outside a module. The different CLILQuests of a module aim at developing learners’ same type of knowledge, whether declarative or procedural. For example, through the different Case CLILQuests, the learner knows s/he has to cope with the procedural knowledge of a subtopic.

- A CLILQuest has internal cohesion. The quests within each CLILQuest are not independent of each other. They belong to a sequence of connected quests in which each has a function. The work done in one quest is essential for the work that has to be done in others. This interrelation requires CALL to be used obligatorily and in a natural way, i.e. the learners must make use of technological resources in order to solve the CLILQuest through the accomplishment of its quests.

- A module has internal cohesion. When modules consist of more than one CLILQuest, a further degree of cohesion and integration is intended. The general outcome of a CLILQuest may be essential for the development of another CLILQuest within the same module.

- There is also cohesion across modules. Here, the general outcome of a CLILQuest in one module can be the input of a CLILQuest in a different module. In this sense, we are not linking CLILQuests but modules. As an example, based on the factual knowledge of a subtopic, in an Introductory Module the learners may organize a conference on a given issue that may be later held in the first CLILQuest of the Core-Knowledge Module.

One of the recurrent problems of the use of a programme of activities into the school life is time. Very often, teachers complain about the mismatch between the list of contents to be taught and the amount of school time allocated for their instruction. We may point to flexibility as one of the most useful features of the model presented here. The teachers may opt to use the CLILQuest as the only educational tool for a whole course or to use it in combination with other online or offline tools. S/he may also consider the use of CLILQuests either as in-class or out-of-class work. No restrictions to the use of this tool are imposed in this regard.

The modular structure of this framework permits the design of a variety of CLIL programmes that may fall easily into any schedule. To mention but a few, one topic could be taught within one month, one term, or even one year. The teacher could also consider the implementation of three subtopics over the three terms of the year, one subtopic per term. Each of these options has its pros and cons. For example, dealing with one topic within a month or a term prevents a detailed study of the topic. On the other hand, teaching a topic
over the course of one year allows greater detail but it is a monothematic approach, which can be discouraging for those learners who do not like the topic. It is the teacher the one who should decide on the use and scheduling of modules and CLILQuests over the academic year. Moreover, although the design of a programme such as this requires considerable time and effort, the modules and the CLILQuests can be quite easily recycled and substituted for others that can serve the same purposes.

Although the CLILQuest is grounded in known models of Language WebQuests, we are fully aware of the need of implementation and evaluation of this proposal in the actual classroom. Some possible areas for further development are noted here: for example, the framework should be refined to provide specific recommendations on evaluation. As explained elsewhere, an evaluation section should be included in the structure of the CLILQuest. Another aspect that deserves special attention is the means of coping with the different types of Focus on Form. We have only suggested a way to include some FonF part in the CLILQuest through the test section; however, we are aware that further explanation is needed to determine when, where, and how the different types of FonF should be applied in the accomplishment of the quests. In sum, the CLILQuest is awaiting for real implementation and some classroom action-research that may provide feedback on its validity and suggest replacement and improvement of its defective parts.

4. References


