

# CLIL MATERIAL DESIGN AT UNIVERSITY

## A discussion of CLIL methodology illustrated by materials used in higher education

- Oliva-Girbau, Angels

Universitat Pompeu Fabra (UPF)

Departament d'Humanitats

c/Ramon Trias Fargas, 25-27, 08005 Barcelona

**[angels.oliva@upf.edu](mailto:angels.oliva@upf.edu)**

- Walsh, Mary Louise

Universitat de Girona,

Escola Universitària de la Salut i l'Esport (EUSES)

c/Francesc Macià 65, Salt 17190, Girona

[mary.walsh@cadscrits.udg.edu](mailto:mary.walsh@cadscrits.udg.edu)

### 1. ABSTRACT IN ENGLISH: 500-700 characters

The European Space for Higher Education, with its emphasis on mobility and internationalisation, is pushing universities to produce multilingual and communicatively competent graduates, with English as the academic lingua franca. In spite of the successful Content and Language Integrated Learning (CLIL) experiences in European primary and secondary education, there are few studies on the use of CLIL in Higher Education (HE). This paper presents the main features of CLIL pedagogies, its effects on content and competence learning, and as a tool to promote learner autonomy. The theoretical framework is accompanied by examples from a range of course materials that illustrate how CLIL can help HE instructors to promote the learning of cognitive and communicative competences along with subject content by increasing learner engagement and autonomy by creating a context for active learning, and the use of techniques such as scaffolding.

### 2. KEYWORDS: competence, classroom roles, material design.

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**3. FIELD OF KNOWLEDGE:** More than one area.

**4. SUBJECT AREA:** Innovation in Higher Education, Internationalization of the University.

**5. PRESENTATION CATEGORY:** Oral Presentation.

**6. DEVELOPMENT:** 25.000 – 35.000 characters (with spaces)

**a) Objectives**

In the following pages, we provide a summary of the main features that define CLIL methodologies, illustrated by examples from materials we have developed for two subjects in HE. Coyle's 4C's Framework (1999) sums up the interrelationships between content, communication (language), cognition (learning and related competences) and culture (context-bound identities) as they are supposed to occur in CLIL classrooms. In other words, in order for a CLIL course to be considered effective, it needs to help students expand their linguistic and subject-specific knowledge and competences; it needs to engage them in meaningful communicative and cognitively challenging activities; and it needs to connect learning to an increased intercultural awareness of the field of knowledge they are exploring.

The materials we present, tried and tested in subjects from different degrees and different universities, offer examples of how CLIL subjects can motivate students to discover content and acquire linguistic skills in a foreign language through the use of engaging materials, with progressively cognitively challenging tasks which require both content and linguistic exploration individually and in co-operation with other students. CLIL can help to promote students' ability to work in multilingual academic and professional contexts because it works on essential skills for life-long learning and the social construction of knowledge (Council of Europe, 2001).

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## b) Description of your work

CLIL encompasses any educational activity in which foreign language acquisition mediates the acquisition of subject content in order to create meaningful learning opportunities. CLIL demands students' active engagement in their learning, which requires teachers to change their classroom management routines, to make knowledge accessible to students through careful planning of the levels of cognitive and linguistic demands, and to create opportunities for exploratory interactions and engaging learning contexts (Escobar et al. 2011). In the following pages, we describe the key principles of the CLIL methodology, which include: 1) its **multiple focus** (on language, learning and cognition); 2) the construction of **safe and enriching learning environments**; 3) the use of **authentic** materials and interactions; 4) the promotion of **active learning**; 5) the use of macro and micro **scaffolding** to accompany students' learning to make them increasingly autonomous; and, 6) the promotion of **co-operation** among students and teachers (*Hammond et al, 2001*). Each one of these principles is summarised and illustrated by an example from the materials used in two university courses, for which we provide a brief description in table 1 below. Finally, we list the potential advantages of CLIL regarding issues such as the internalization of universities, the construction of learners' autonomy, or shifting the focus of second language acquisition from grammatical accuracy to effective communication.

### Example 1: English: Expressive Resources (EER)

The natural approach to this subject would seem to reside in the English for Specific Purposes arena, as in a business English course or along these lines. However, this proved rather problematic because it took for granted students' previous acquisition of field-specific contents and competences, and the possibility of seamless transposition to their equivalents in the English-speaking world. Because of this, the course instructors decided to teach this subject as a CLIL course<sup>1</sup> in order to enable students to acquire language knowledge through the acquisition of meaningful contents, both specifically tailored to their professional interests. As shown in

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1 We could also regard the course as an example of Content Rich Language Learning (Escobar, 2011), but at the time of planning this methodology was not widely spread, hence our drawing from previous CLIL experiences regarding classroom management, material development, etc.



table 1, the course comprised two umbrella modules and three modules that worked on different types of media. Throughout these modules, students got explicit instruction and practice on a range of communicative and cognitive skills they would then apply to a term-long project that consisted of creating a mock advertising agency in groups. These mock agencies then worked on different cases, writing a press release or managing unruly graphic designers for a customer's campaign, for example. At the end of the course, they all participated in a mock business fair in which they had to present their agency, negotiate contracts and network with one another.

### **Example 2: History and Sociology of Sport (HSS)**

The traditional teacher-focused classroom set-up of university could not be used in the case of HSS for obvious reasons: Students with low and medium level proficiency of English would not be included or engaged in a 1 hour and 45 minute class in a foreign language they were neither familiar with nor confident in. A more communicative and interactive approach was decided upon. A team of experts in language, content and curriculum planning worked together to design the course content (see TABLE 1), which was divided into four modules each building on from the previous one with the general objective of students being able to create a personal perspective and opinion on the evolution of physical education and physical activity. Students were expected to become familiar not only with historical fact but also with sociological theories and perspectives, as well as pedagogical and philosophical debates surrounding physical education. The broad scope of history narrowed down and deepened as the course progressed, focusing finally on the current situation in Spain, Europe and also the stark differences between countries with resources and those without.

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Subject		HSS	EER
University		EUSES	UPF
Academic year		1 <sup>st</sup> year	3 <sup>rd</sup> or 4 <sup>th</sup> year
Number of students		120/group	90/group
C o n t e n t s	<b>Factual and conceptual Knowledge</b>	<ul style="list-style-type: none"> <li>⤴ Know the different epochs in the history and development of physical activity and sport.</li> <li>⤴ Identify the physical activity and sports specific to each epoch.</li> <li>⤴ Understand the role of physical education in the integration and inclusion of immigrants and minorities within mainstream society.</li> <li>⤴ Understand and analyze the role of gender in the development of physical activity and sport.</li> <li>⤴ Relate the social theories and perspectives to our society.</li> </ul>	<ul style="list-style-type: none"> <li>⤴ Introduction to marketing and advertising language.</li> <li>⤴ Marketing ethics: environmental issues, fair trade, social responsibility.</li> <li>⤴ Written media: The press, printed documents.</li> <li>⤴ The interactive media.</li> <li>⤴ Radio and television.</li> </ul>
	<b>Procedural and meta-cognitive knowledge</b>	<ul style="list-style-type: none"> <li>⤴ Be able to identify, define, explain and analyze the different socio-cultural events related to the course.</li> <li>⤴ Understand, support and criticize the social and pedagogical theories related to the course.</li> <li>⤴ Develop arguments based on differing theories related to Physical Activity and Sport.</li> <li>⤴ Create role plays and socio-dramas contextualizing the main points of the course.</li> <li>⤴ Create a documentary analyzing and criticizing an issue or theme related to the course.</li> </ul>	<ul style="list-style-type: none"> <li>⤴ Become aware of and discuss the differences between the advertising industries of different cultures.</li> <li>⤴ Articulate and contest the assumptions behind marketing campaigns.</li> <li>⤴ Understand and analyse different types of advertisements using professional tools.</li> <li>⤴ Interact in typical professional situations.</li> <li>⤴ Produce meaningful texts or speech in an adequate register and format.</li> <li>⤴ Start up and present their own marketing business in groups.</li> </ul>

Table 1: Course descriptions.

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## 1) Focus on language, learning and cognition

CLIL courses activate simultaneously students' linguistic and cognitive skills, and contribute to the acquisition of field-specific contents and know-how (Coyle, 2005). This requires careful planning of the inter-relations between these aspects of knowledge, adapted to individual contexts and bearing in mind multiple variables – students' language levels, previous content knowledge, level of cognitive development, types of classroom interactions they are familiar with, and so on.

Based on the premises of socio-constructivism, CLIL regards language and knowledge as indivisible units that require meaningful social interaction to develop (Vygotsky, 1978). Firstly, because language acquisition takes place when the focus on form stems from a communicative need in a content-focused situation. Likewise, language becomes a tool for learning because thought takes the form of language, and becomes conscious only when it is articulated into words. Language cannot be separated from the meaning it conveys (Ivanic, 1998), as language choices are inextricably linked to the functions they perform. Consequently, teaching a foreign language does not mean having students memorise a series of grammatical constructs, but rather how these grammatical forms are embedded into a network in which users interact to achieve some goals.

- ▲ In EER, the theoretical contents of the course were presented and worked on as part of tasks that students needed to fulfil to build on their agency's portfolio. In the unit of printed documents, for instance, students had to write a message to an imaginary graphic designer in which they complained – politely – about the materials he had developed for one of their clients. In this message/report, they had to discuss technical aspects regarding the ad, its place of publication, its target audience, and such. To accomplish this task successfully, they needed the conceptual knowledge regarding printed adverts and the competences needed to produce them, discuss them and eventually modify them, and the communicative competences associated to the genre of the internal message/report (being polite while still getting their message across, getting the graphic designer to make whatever changes they wanted without further payment, etc).

## 2) Construction of safe and enriching learning environments

Learning occurs when students work within what Vygotsky called their zone of proximal development (1978), and when teachers, through their mediating support role, are able to assist students to extend their current understandings and knowledge. A teacher's function is therefore to facilitate students' learning by creating learning opportunities in co-operation with students, as the zone of proximal development is constructed in and through the activity in which learners and teachers jointly participate.

CLIL employs a variety of working arrangements, promoting in particular group work. On the one hand, this gives students the opportunity to organise themselves and the pace of their work. This creates less stressful contexts for foreign language practice for students and frees the teacher from constant classroom management and discipline issues. Students get more talking time in a less challenging environment than when speaking to the whole class, and the teacher can offer more individual assistance, hence tending more efficiently to students' needs regarding foreign language problems, for example. Working with large class sizes, small-group environments provide students with the opportunity to collaborate and learn from one another whilst being unobtrusively observed and evaluated by the teacher, whose role thus changes from producer to facilitator of knowledge, furnishing students with the materials and resources they need to learn.

△ EER was structured as a term-long project to be able to deal with 90 students with dramatically different language levels, backgrounds and professional experience simultaneously. The final part of every lesson was systematically devoted to project work, with students sitting together in groups and preparing the task to be handed in every week. Meanwhile, the teacher walked among the groups answering questions, revising their work and encouraging them to use English among them. As a result, students' talking time in class was much higher than in the average lecture, and at the end of the term students had built a thick portfolio for their agency, which they shared at the “trade fair” with their classmates as a rehearsal for a common professional scenario for them.

## 3) Use of authentic materials and interactions

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CLIL materials often have to be adapted for lower level students. However, if students are prepared beforehand with appropriate pre-task activities, authentic materials enrich the students' knowledge of the subject and of other cultures. The 4C's of CLIL include culture and the use of authentic materials gives students insight into this. With regards to interactions, role plays and socio-dramas allow students to apply what they have learned and use it to resolve situations which they may come across during their professional careers, or may have already witnessed as a student.

- ▲ An example of authentic material and interactions can be found in the final unit of the HSS, which dealt with the current situation with regards to the multiculturalism, interculturality and inclusion in primary and secondary schools in Spain. Students were asked to share their experiences in groups and in an open class discussion. Authentic audio visual materials from various countries around the world were used to construct a global perspective of interculturality, physical education and working towards inclusion. Pre-task activities before watching the materials included learning key concepts, reading in pairs and in groups and also constructing key concept questions that they thought were relevant to the course. By the time the students viewed the material, they were familiar with the techniques and methods and were able to criticize and discuss them more in depth. They were also able to relate them to their own experiences. Once this was achieved, they were given socio-dramas to act out and to resolve. The situations were related to working in physical education, working in sports administration and also working as a monitor in a sports summer camp. Most of the students had some previous knowledge or background of the field and were able to see the link between the unit content and their prospective future careers.

#### **4) Promotion of active learning**

CLIL classrooms, due to its socio-constructivist roots, tend to be focused on the students, who are required to take on a more active role and be involved in and responsible for their own process of learning. Knowledge is not static, top-down and alien to students, but rather an ever-changing, dynamic view of the world and the ability to explore and modify this view.

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Consequently, CLIL needs to take into account students' previous knowledge, and their individual process of internalization of new knowledge through active social negotiation of meaning with their peers. Students' background and present situation determine their zone of proximal development, i.e. their potential to progress (as mentioned in point 1). In a CLIL classroom, students' main activity is to solve problems (tasks). While working on tasks, students become aware of previous concepts, ask questions, investigate, and use a variety of resources to fulfil the task. Teachers need to create opportunities for potential learning by developing materials that engage students into meaningful exchanges that guide them towards knowledge transformation and, hopefully, appropriation.

- △ An example of active learning was the group project in HSS. Students were given the task of choosing a topic related to the history and socio-cultural aspects of physical activity and sport. They were allowed to choose from a wide range of topics ranging from: *historical perspectives in sports, the influence of the mass media and corporate sponsorship, homosexuality in sports, national identity, physical education, and sports administration*. Students researched and developed the topic, taking into account the course content, social theories and their own experiences and perspectives. The students had to create a documentary on the subject, give an oral presentation to the rest of the class and submit a written report in the style of an academic paper. This activity activated the students as the majority of them were sports-orientated and found their own experiences had been influenced by what they had learned throughout the course.

## 5) Use of scaffolding to make students increasingly autonomous

Autonomous students are capable of solving problems using critical reflection, so that they can come up with the optimal solution and take appropriate action to implement it (Little, 1991). Scaffolding refers to techniques that guide students' acquisition of the language and cognitive skills that are necessary for learning to occur. Through the planning and gradation of task-challenge levels, CLIL enhances student autonomy and the social construction of knowledge among peers. Scaffolding applies to both linguistic and subject content, and to the cognitive

skills required to carry out tasks, assuming that the more demanding one of the aspects is, the less students can focus on the others.

There are two types of scaffolding, macro and micro (Mercer, 1994). Macro-scaffolding, also known as built-in scaffolding, is planned beforehand and determines the sequencing of contents and tasks, and the creation of supporting materials to help students deal with communicative, content-related and cognitive problems, as well as considerations regarding when to withdraw support and challenge students. As for micro-scaffolding, or point-of-need scaffolding, it covers teacher's more customised attention to students' needs during lesson, and it includes strategies such as paraphrasing, repetition, echo-questions, recasting of students' answers, and so on.

- ⤴ For HSS, images, graphs and tables were used to highlight and repeat the most relevant content of the texts. Students were also given tables and charts to complete categorising the information. For the first modules, the instructor created key concept questions to guide students towards the content which would later be used by the students as models to create and produce their own key concept questions.
- ⤴ In EER, micro-scaffolding occurred both in group and whole-class interactions. Before presenting the materials, the instructors elicited from students any previous knowledge they had on the issue, regarding subject content and language structures, thus guiding them towards the contents of the units. This was done using a variety of resources, ranging from games, to echo-questions, true/false exercises, mimicking, and such.

Language-wise, one way to scaffold students is to plan the activities from more receptive tasks to more productive ones, so that students get plenty of exposure before they set out to produce some discourse on their own.

- ⤴ An example of macro-scaffolding from the design of the HSS: During the course, students were required to give academic oral presentations and written reports. They also had to create dialogues for role plays, debates and socio-dramas. It was agreed that since the students were first-year undergraduates, it would be beneficial to include in the introductory module, *Introduction to the Course*, with a unit on Academic English (both written and oral) and another one on how to prepare a dialogue for a role play. In both of

the units, the students had some activities to familiarise themselves with (a) the models and structures presented and (b) working in pairs and groups on activities within the class. Students prepared academic oral presentations, reports and projects using topics that they had chosen related to sports. The students then presented their projects orally in class. The other students had to ask questions and assess whether or not they had followed the structure of the presentation using a checklist provided by the instructor.

## 6) Co-operation among students and teachers

Because CLIL practitioners conceive learning as a bottom-up process, necessarily social and collaborative, the traditional classroom roles and interaction patterns are enriched with different types of interaction that enable knowledge to be socially discovered and constructed. In practice, this involves reversing the proportion of teacher-talking time and student-talking time, which ends up being very different from the one we would find in an average lecture. Students' role is more active, as they need to explore and infer different types of knowledge from authentic sources, employing real-life communicative tools for this purpose. Teacher's role also needs deep changes regarding all stages of teaching, from planning, to repair strategies, assessment, work with other teachers across departments, and such. The implications in everyday teaching practice involve an increase in transparency, as students are informed of and required to participate in the process of assessment, which is enriched with a range of tools to be used by different agents.

- ▲ For HSS, each of the units contained groups and pair activities in which the students assessed one another. First of all, students worked in teacher-assigned groups with the task of identifying, classifying and then evaluating content before producing a summary to report back to their own student-assigned work group. The other members of the group would then assess whether or not the summary was relevant or accurate and add any information that they thought was missing.

## c) Results and/or conclusions

The implementation of CLIL can provide students with powerful communicative and cognitive competences, while promoting group co-operation and the social construction of knowledge,

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thus making students better-equipped to compete with graduates from other European countries in the global job market. CLIL is intended to cater to students' different learning rhythms and levels, which can be a very valuable asset considering the increasing heterogeneity and large class-sizes of present-day university. The provision of progressive scaffolding and the instructors' ability to fine-tune the level of linguistic and content complexity enable students to increase their autonomy.

CLIL takes into account the specificities of each field of knowledge. Consequently, students become familiar with the language expected from them in different academic circles, and through guided instruction gain confidence in using academic genres as new members in their field.

The teaching methods associated to CLIL change teachers' roles in the classroom from producers of content to facilitators of knowledge, so that they monitor students' learning rather than merely provide data. Having more opportunities to monitor students, teachers can furnish them with individualized and more varied feedback on their language and content acquisition throughout the term, using different tools and patterns, and introducing more varied formative assessment tools such as peer- and self-assessment.

By increasing students' autonomy as learners and focusing on the successful communication and transformation of subject content rather than on language accuracy, teachers can help students feel more confident about their foreign language skills, and adopt a more communicative approach to language learning. The communicative approach to second-language learning, using the target language to discover and transform new knowledge, and the sense of achievement derived from the accomplishment of increasingly challenging tasks throughout the course either on their own or in co-operation with the rest of the class can contribute to boost students' motivation. In spite of their language limitations, students are able to present very complex written and oral productions of the subject content using a range of communicative and cognitive skills to overcome their limitations. At the end of the course, students can have a portfolio of their work that demonstrates what they have accomplished.

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