# Improving Bilingual Higher Education: Training University Professors in Content and Language Integrated Learning

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**Abstract:** Few studies have been conducted at the tertiary level on Content and Language Integrated Learning (CLIL). The current study aims to gather and share preliminary data concerning CLIL in higher education at several universities in different countries. A questionnaire and brief description of the project and its objectives were emailed to all teachers at a Spanish university listed as having taught content courses in English in the last academic year, and to all the Language Center directors within the network with instructions to pass the questionnaire along to the CLIL teachers at their respective universities. The questionnaire was answered by 168 teachers, with 79% of responses (n=133) coming from four universities in Spain, Malaysia, P.R. China, and Turkey. The questionnaire results were exported to Excel and analyzed using statistical software. This preliminary phase of the research project, in which quantitative data has been analyzed, shows that CLIL teachers are intrinsically-motivated, language proficient, and aware of the need to adapt material to the bilingual classroom. In the next, qualitative phase of the project, issues regarding English language assessment, use of L1 in the classroom and scaffolding will need to be analyzed in depth in order to propose guidelines for future good practices and bilingual teacher training.

**Keywords:** Bilingual education, tertiary CLIL, EMI, language learning, UEM

## Introduction and Objectives

Universidad Europea, in its desire early on to become a truly international institution, began in 2006 to implement an academic model whereby communicating in English became a cross-curricular competency. English language instruction was included as a mandatory subject in all degree programs and students were expected to reach a level of English that would allow them to function in any modern, international context. In addition to this, English was embedded into daily university life, in the way of campus-wide events, activities in Spanish-taught classrooms, English medium instruction courses, and a number of fully English-taught degrees. This has resulted in a heightened awareness among the entire university community of the importance of having English skills in today's world, as well as a potential for increasing international enrollment due to a greater offer of degree programs and courses in English. However, this has also resulted in a higher demand for professors qualified in English language skills as well as training in pedagogies for integrating content and language. The university, in its continuous desire for improving educational quality and reaching excellence, has initiated quality processes through its Language Center, which has begun assessing English language instruction institution-wide in an attempt to detect and propose good practices.

In 2011, The Language Center carried out a preliminary survey following the theoretical background for needs analysis (NA) in Content and Language Integrated Learning (CLIL)

established by Ruiz-Garrido and Fortanet-Gómez (2009), seeking to collect information about the kinds of obligatory courses offered in English at the Universidad Europea de Madrid (UEM), offering teachers a space to share their perceptions and experiences, and identifying the types of support that would help improve the current CLIL offer for both teachers and students. Important data points from the survey included the following: 35% of CLIL teachers did not feel that they had received adequate training to teach in English, 35% stated they would like a pre-service intensive training course, 25% a year-long training course in CLIL methodology, and 37% were interested in an online collaborative space.

In the open answer sections, teachers explained that mixed-level groups, classroom management vocabulary and interaction, and the amount of time necessary to plan lessons were some of the most pressing issues, which match up with three of the eight areas of competence for CLIL teachers established by the Socrates-Comenius Project "CLIL across Contexts: A scaffolding framework for teacher education: interaction, planning, and cooperation and reflection" (Hansen-Pauly, 2009). This perception coincided with the research findings of Dafouz and Núñez (2009) on the difficulty with non-subject specific interactions (negotiating deadlines, jokes, eliciting student opinions, etc.).

Subject literacies, another of the eight areas of competence identified by the aforementioned project, takes on additional weight in a higher education context as student skills become more subject specific (45% of UEM CLIL teachers were interested in support for creating technical glossaries and procedural materials).

The current study aims to gather and share data concerning CLIL in higher education at UEM and within the Laureate network. In Spain, bilingual education is given considerable importance at both the state and private level, but few studies have been conducted at the tertiary level. The researchers therefore aim to fill this gap by finding out the levels of satisfaction of teachers and students with the implementation of CLIL at UEM, in order to propose improvements in the teaching of English-taught subjects, including progressive curricular immersion into the second language (L2), defining specific learning outcomes and objectives, and designing a syllabus for a future blended learning tertiary CLIL teacher training program, to be developed in a follow-up project.

## Literature Review and Scope

Content and Language Integrated Learning, or CLIL, is one of the key educational methodologies that respond to the need to internationalize education. "In a Europe which is moving slowly towards integration, CLIL has been highlighted as a key tool for intercultural learning, one which allows us to transform knowledge into understanding" (Hansen-Pauly, 2009).

According to the literature, the term CLIL was coined in 1994 in Europe (Mehisto, Marsh, & Frigols, 2008), and since then it has been defined and redefined several times by different sources (see Brinton et al., 1989; Marsh, 2002; Wesche, 1993). For the purposes of this study, the definition chosen has been "a dual-focused approach in which an additional language is used for the learning and teaching of both content and language" (Marsh, Mehisto, Wolf, & Martin, 2010, p. 2).

One of the great difficulties involved when researching literature on CLIL is the great many homologous terms that exist for the same (or very similar) methodology. According to *One Stop*

*English*, an English teacher's resource site published by Macmillan English Campus, there are fourteen terms under the umbrella term CLIL, including Content-based Instruction (CBI) used in the United States and Canada, or English as a Medium of Instruction (EMI) used in Asia, parts of Europe and sometimes in the US (www.onestopenglish.com). However, a closer look at terms such as CBI or EMI will show that they are most often used within a context of language learning where the objective tends to be rapid acquisition of a language through the learning of authentic material. These and other such terms do not place the same emphasis on the integrative nature of multilingual education that CLIL does, where there is clearly a dual aim: learning content and learning a foreign language, as proposed by Coyle's 4Cs Framework (Coyle, 1999, 2007). Furthermore:

> The 4Cs Framework takes account of integrating learning (content and cognition) and language learning (communication and cultures). The 4Cs Framework suggests that it is through progression in knowledge, skills, and understanding of the content, engagement in associated cognitive processing, interaction in the communicative context, developing appropriate language knowledge and skills as well as acquiring a deepening intercultural awareness through the positioning of self and "otherness", that effective CLIL takes place. From this perspective, CLIL involves learning to use language appropriately whilst using language to learn effectively. (Coyle, 2006, p.9)

As far as preparing teachers to be qualified CLIL practitioners, the literature coincides in that integrating content and language poses unique challenges to instructors, who are normally either content or language specialists, but rarely both. A good CLIL instructor must be able to both transmit the knowledge and skills students need to learn in a particular subject and help them improve their language level. Met, as far back as 1999, proposed that in order to be successful, CLIL teachers need to have skills in a great many areas, including content knowledge, content pedagogy, understanding of language acquisition, language pedagogy, knowledge of materials development and selection, and understanding of student assessment. The Socrates-Comenius 2.1 Project enumerated eight CLIL teacher competences, which include planning, multimodality, interaction, subject literacy, evaluation, cooperation and reflection, context and culture, and learner needs (Hansen-Pauly, 2009). It also mentioned the importance of spaces for teachers to collaborate and reflect on their work. Marsh et al. (2010) also made reference to the difficulty involved in teaching content in English:

> Teachers undertaking CLIL will need to be prepared to develop multiple types of expertise: among others, in the content subject; in a language; in best practice in teaching and learning; in the integration of the previous three; and, in the integration of CLIL within an educational institution. (p. 5)

CLIL goes further beyond other methodologies, as it focuses just as heavily on the acquisition of language as on the learning of content. This poses major challenges for higher education institutions, which need to put into practice training programs that will assure the language level of professors teaching content in English, ensure their subject literacy not only in their native language but also in English, choose the subjects that will be taught in English according to pre-established criteria, and provide ongoing training and support in multilingual classrooms.

The overall major challenge, in the development and implementation of a teacher education curriculum in CLIL, is its integrative nature. This is the case at all levels of education – primary, secondary, tertiary, vocational and adult. CLIL seeks to teach two subjects in one – a

content subject and a language. Content subjects, such as mathematics and an additional language, are usually taught separately (Marsh et al., 2010).

CLIL teachers need to know how to write a course description, a course syllabus, and lesson plans, among other, using the proper vocabulary for skills and grammatical structures. They need to know the rules of pronunciation to be able to pronounce their terminology (of vital importance in students' learning in order to be understood within their field), and above all, CLIL teachers need the resources to be able to handle problems encountered when there is not a language expert present to help.

The general opinions and perceptions of CLIL instructors presented in the literature consulted is corroborated by the results obtained from UEM professors' responses to the questionnaires regarding CLIL practice at this university. The results, as will be seen in the section dedicated to such, support the idea that CLIL instructors need greater support on the part of institutions, more in-depth training into the intricacies posed by integrating content and language in the classroom, and collaborative spaces where they may interact, share ideas, and reflect upon their teaching.

## Methodology and Quantitative Study

To survey the teacher profiles and experiences in CLIL courses at the tertiary level within the Laureate network, a questionnaire and brief description of the project and its objectives were emailed to all teachers at UEM listed as having taught content courses in English in the last academic year, and to all the Language Center directors within the Laureate Universities network with instructions to pass the questionnaire along to the CLIL teachers at their respective universities. The questionnaire chose not to consider teachers who teach the subject of English, but rather those teachers specifically involved in the teaching of content subjects through English. The questionnaire was reviewed by several members of the UEM Language Center with knowledge of CLIL practices but not directly involved in the project, and piloted by academics enrolled in a CLIL training course at UEM. The online questionnaire contained factual questions and questions looking for evaluative responses, and included a title, a brief introduction, and some instructions for filling it in. The questionnaire was two pages long and was divided into six sections:

- Biographical/Teacher profile, with eight items: self-assessed language level, age, years of experience teaching, years of experience teaching subjects in English, languages used for instruction, name(s) of the university/universities, academic department(s), and whether or not the English level of the teachers was sufficient to teach in English. There were three closed and five open questions.
- Student profile, with two items: individual English levels and class English levels. All questions were closed, evaluative responses to a positive statement rated on a five-point Likert scale.
- Content assessment, classroom management and preparation, with seven items: influence of student English levels on teaching, influence of mixed student English levels on teaching, influence of student English levels on material adaptation, the amount of preparation time needed to prepare a class in relation to one taught in the teacher's native language, kinds of assessment used, and a comparison between assessment criteria used for classes taught in English and other languages. There were six closed questions and one open question.
- Language use, with three items: English language assessment in the content course, use of languages other than English with students in the classroom, and use of languages other than English with students outside the classroom. All questions were closed.

- Teacher motivation, with four items: agency in teaching in English, enjoyment teaching in English, satisfaction with compensation for teaching in English, and reasons for teaching in English. All questions were closed, with the last question allowing multiple responses and a text box to add additional responses not listed.
- Training and support, with six items: the kind of training desired, the duration of said training, the format of said training, kinds of support desired, satisfaction with the English and pedagogical training received at the university, and the kind of training received. There were five closed and one open question. One closed question included a text box for types of support desired but not listed.

The questionnaire results were exported to Excel and analyzed using statistical software.

## Results

The questionnaire was answered by 168 teachers, with 79% of responses (n=133) coming from four universities: UEM, INTI International, Les Roches Jin Jiang, and Istanbul Bilgi.

*Teacher profile*: 80% (n=133) self-assessed their English level at C1 or above. Seventy-six percent (n=127) were between 26-45 years old. The mean teaching experience was 9.5 years; 36% (n=60) of respondents had 5 years or less teaching experience. Sixty-three percent (n=106) reported having 5 years or less experience in teaching in English. Eighty-five percent (n=129) agreed or strongly agreed that their English level was sufficient to teach in English.

*Student profile*: teachers didn't agree that student English levels were adequate ($\overline{x}$ = 2.71, n=152) nor that student English levels were homogenous ($\overline{x}$ = 2.2, n=152).

*Content assessment and classroom management*: teachers didn't agree that student English levels and mixed-level classrooms had no effect on their teaching ($\overline{x}$ = 2.38, $\overline{x}$ = 2.13, n=152). Sixty-four percent (n=97) agreed that they adapted their class material to student English levels. Fifty percent (n=76) responded that classes took longer to prepare, with 64% (n=49) reporting that classes took at least one and a half times longer to prepare. Fifty-eight percent (n=148) agreed that they used the same assessment criteria regardless of the language of instruction, with presentations (82%), writing (76%), teamwork (63%), and case studies (59%) being the most popular forms of assessment.

*Classroom language*: 34% (n=51) were neutral on assessing language in the classroom; 43% (n=65) reported never using languages other than English in the classroom, as opposed to 30% outside of the classroom. Twenty-two percent (n=33) reported using languages other than English frequently or very frequently outside the classroom.

*Teacher motivation*: 50% (n=76) said teaching in English was their own decision; 80% (n=120) enjoyed teaching in English; 44% (n=66) didn't agree that they were compensated fairly for their CLIL classes; 51% (n=77) answered that the reason they were teaching in English is because they were asked to by their superiors; the second and third most popular reasons were a love of languages (43%, n=65), and that they enjoyed teaching students from other cultures (43%, n=65).

*Training and needs*: teachers would prefer to receive training in speaking (46%, n=70) and academic English (45%, n=69); 27% (n=41) were interested in receiving CLIL training; 10% (n=17) wouldn't like to receive any training at all. Six percent (n=6) preferred intensive pre- or post-session training, and face-to-face (54%, n=82) and blended (45%, n=69) formats were preferred to online (23%, n=35). Fifty-three percent (n=81) expressed interest in an online collaborative space, 42% (n=64) in shared resource repository, and 40% (n=60) an opportunity to publish good practices. Satisfaction with English training was mixed ($\bar{x}$ = 2.93, n=149), and 26% (n=40) have received no training at their university. Only 7% (n=11) mentioned receiving CLIL or academic English training.

## Discussion and Further Research

The present paper is based on an online survey provided to CLIL teachers of the Laureate Universities network, i.e., on a quantitative instrument. To ensure reliability and representativeness, the following additional data collection activities are being carried out: 1) classroom observations (taped interactions, field notes, short semi-structured interviews with teachers); 2) focus group discussions with CLIL teachers; 3) student-centered data collection: survey, focus groups; and 4) expanded research inside and outside of the Laureate network.

As a result of the insights gained, the researchers intend to propose a tailor-made CLIL teacher training program for both UEM specifically and the wider community of tertiary level CLIL teachers. The following aspects of the survey carried out will be taken into consideration when designing the CLIL course:

1. Teacher profile: The survey indicates that CLIL teachers tend to be relatively young (under 45), with a high level of English proficiency (according to their self-assessment), with little teaching experience in general and even less in teaching through English. This profile suggests a need for general methodological training in addition to specific CLIL training, as well as training in specific rather than general English skills, such as EAP and ESP. This analysis is supported by items 21 and 24, in which teachers ask for specific rather than general support.
2. Student profile: Responses suggest that either low English level or mixed level classes are common and are considered a challenge to the teacher. Training teachers in scaffolding and classroom management seems to be indicated to improve the situation, as well as, on the part of the institution, ensuring students reach an adequate level of English by the time they start CLIL classes. In addition, institutions might consider scaffolding classes themselves, i.e., considering a progression from soft into hard CLIL as students move up through the curriculum.
3. Teacher motivation: In spite of additional preparation time and other challenges of the CLIL classroom, teachers seem surprisingly positive and enjoy teaching CLIL classes. Institutions might consider adding extrinsic motivational elements to the clearly existing intrinsic ones.
4. Teacher training: Results indicate a preference for pre-session, face-to-face, or blended training including opportunities for collaboration in a community of practice.
5. Assessment: Respondents do not feel comfortable with assessing language as well as content. Researchers recommend institutional support by establishing ground rules for assessment, as well as collaborations with the Language Center for joint assessment. Assessment tools show a distribution across different testing tools focusing on knowledge, progress, and competences.

6. Classroom language: Teachers feel more comfortable with using their first language (L1) outside the classroom than inside it. A clear language policy, as well as awareness-raising regarding the appropriateness of L1 as a support in class, especially in soft CLIL environments, is recommended.

## Conclusions

This preliminary phase of the research project, in which quantitative data has been analyzed, shows that CLIL teachers are intrinsically-motivated, language proficient, and aware of the need to adapt material to the bilingual classroom. In the second, qualitative phase of the project, issues regarding English language assessment, use of L1 in the classroom and scaffolding will need to be analyzed in depth in order to propose guidelines for future good practices and bilingual teacher training.

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