

# The ReCLes.pt CLIL project in practice: Teaching with results in Higher Education

**María del Carmen ARAU RIBEIRO**

*Instituto Politécnico da Guarda, Portugal*

**Margarida MORGADO**

*Instituto Politécnico do Castelo Branco, Portugal*

**Isabel CHUMBO**

*Instituto Politécnico de Bragança, Portugal*

**Ana GONÇALVES**

*Escola Superior de Hotelaria de Estoril, Portugal*

**Manuel Moreira da SILVA**

*ISCAP-Instituto Politécnico do Porto, Portugal*

**Margarida COELHO**

*Instituto Politécnico de Portalegre, Portugal*

## **Abstract**

Based on the project partially funded by the Portuguese Foundation for Science and Technology (FCT), the ReCLes.pt CLIL initiative created communities of practice and learning for Content and Language Integrated Learning (CLIL) in Higher Education. The project was implemented in six polytechnic institutes in Portugal to support and develop teaching in English based on a methodology that integrates content and language while attending to learners' needs in both areas. Despite the growing number of English as a Medium of Instruction classes in Higher Education, there remains a paucity of CLIL in the country, both at this and at other levels, although neighboring Spain, for example, has demonstrated an ample use of the CLIL approach, especially in primary and secondary schools. This paper provides an opportunity to get to know these communities of practice and learning in Higher Education to better understand the various ways of dealing with this concept, involving not only the English teachers but also the specific subject teachers in training. This contribution also covers the basis for this training, how the groups are formed, ways to make them work, and best practice as well as results related to monitoring and assessment over the initial three years of the project. The variety of topics and tools created for the 33 piloted modules by these communities of CLIL practice and learning have been published as part of the project. In many cases, continue to be specifically designed and then implemented and assessed in Portuguese Higher Education based on the *ReCLes.pt CLIL Training Guide* (Morgado et al., 2015).

**Keywords:** Content and Language Integrated Learning, Portuguese Higher Education, Community of Practice, Polytechnic Institutes.

## 1. Introduction

The ReCLes.pt CLIL project is an ongoing applied research project on the use of Content and Language Integrated Learning (CLIL) in six Higher Education (HE) polytechnic institutes in Portugal. The innovative approach in the Portuguese context reflects the scarcity of the use of CLIL in HE. The project addresses undergraduate and graduate courses taught through English by reinforcing strategies for developing students' foreign language skills, apart from their regular English classes, and provides teacher training for professors and lecturers in HE to develop competence to teach in English and participate in CLIL communities of practice. The project received support from the FCT for a seven-month period as identified best practice in Higher Education in Portugal, comprising a review of the literature, the *ReCLes.pt CLIL Training Guide*, training courses, the implementation and assessment of CLIL modules to identify areas of improvement and best practices, and motivation for the local, national, and international communities of practice and learning.

The project has been developed through the Association of Language Centers in Higher Education in Portugal – ReCLes.pt – and its general design is linked to not only the specific context in Portuguese HE and the respective linguistic policies at these HEs but also the extensive literature review on CLIL experiences in HE all over Europe. Six HE polytechnics were involved – the Estoril Higher Institute for Tourism and Hotel Studies and the Polytechnics of Bragança, Castelo Branco, Guarda, Porto, and Portalegre.

This article will firstly provide a theoretical background for the main topic, followed by an explanation of the methodology, then proceeding to a section focusing specifically on how the project was implemented in the participating institutions. Results and a brief discussion are interlaced within this part since the results differ from school to school. The conclusion includes a set of recommendations and ideas for the improvement of the communities of practice and learning.

## 2. Background

To establish some key concepts for the aim of this project and also to establish the specific terminology in the field, let us consider that some of the lesser known precepts in HE are that (i) teaching through English implies readjustments to educational methodologies and (ii) that HE language and content professors and lecturers (hereon referred to as *teachers*) also need to adjust their (academic) cultures *of* and *for* learning when they replace their mother tongue with English as a Medium of Instruction (EMI) in their adoption of a CLIL approach – the integrated learning of content and language – and thus focus on student needs in terms of learning not just content but also culture, cognition, and communication.

A keener focus on the foreign language needs of students and on scaffolding techniques is needed when teaching in a language that differs from the teachers and students' mother tongue. Adopting CLIL means the fundamental embrace of code-switching as positive for acquiring and using domain-specific terminology and classroom instruction language, both implicitly when preparing classes and explicitly, for example, when teaching.

Thirdly, when used as a medium of instruction, English as a foreign language carries with it cultural assumptions of *what can be said* and *how it need to be taught*, learned, and shared in the community of practice and learning made up of CLIL teacher trainers, content teachers in training, and students. Smit and Dafouz (2012, p. 3) claim that English used as a lingua franca in tertiary education combines “the shared linguistic repertoire available to the interlocutors in multilingual educational settings with their expertise in the respective content area and its genre-specific conventions”. As in any other attempt to describe cultural dimensions, while some CLIL products, practices, people, communities, and some perspectives are made explicit through research and practice, many perspectives may remain invisible or intangible. As a result, underlying perceptions and attitudes are affected, such as highly contextualized academic cultures of learning, with direct and indirect forms of participating in CLIL. Similarly, negotiations needed to move from one set of practices to another; HE teachers may need to “give up” content topics from their syllabus because they may not make sense in English; scientific terminology may or may not gain space, depending on the domain. Much of this is visible, but parts of it are also invisible in the sense that content teachers hardly ever consider that they use a particular language and discourse to teach or that learning is about grasping the specific discourse of a particular subject, or being able to use a meta-language through which to think and reason.

Moore and Dooly (2010) call on Wenger’s (1998) notion of Communities of Practice (CoP) to highlight that CLIL operates within the new paradigm of the language user in subject-specific fields of knowledge that could be considered highly-contextualized communities of practice, where it makes no sense to separate the content from its linguistic paradigm. Form and meaning have to be negotiated together and knowledge is shaped in that complex interrelation (Moore & Dooly, 2010, p. 76). This position is based on current theories of knowledge which understand disciplines as social fields of practice, whereby language used in research and in the classroom within a certain study area constitute social practices embedded in particular contexts. They comprise “formal structures of knowledge and practices, and actors who share interests and norms (whether explicit or tacit) of knowledge production and communication” (Freebody et al., 2008, p. 191) as well as dissemination of that knowledge, for example, through teaching. There will be, according to Freebody et al. (2008, p. 192), preferred genres within each study area and favored interpretive frameworks as well as the tendency to “register combinations, ways of coordinating knowledge in language and image, ways of using abstraction and technicality”, which are often built on cross-cultural and bilingual approaches.

### 3. Methodology

The aforementioned theoretical issues support the framework for the ReCLes.pt CLIL project, which was put into practice across three stages. The first stage, during the academic year 2013-2014, focused on the need, detected across Portuguese polytechnic institutes, to assess the readiness of these HE institutions to engage with the CLIL approach in order to meet their internationalization strategy. Initial studies also explored how foreign languages are taught within these schools and the

existence and extent of language policy as well as the perceptions of governance and teaching staff of their own foreign language competences and those of their students. The aim was to start a debate and reflection on linguistic policies and the best ways to teach and learn in and through a foreign language, in this case English. Two questionnaires following Jensen and Thøgersen (2011) were used to assemble relevant data on the foreign language practices in these HE institutions. International offices, governing bodies, and teachers were interviewed and asked to describe the courses taught in English and other foreign languages, the number of international students, and their ability to participate in classes in Portuguese.

The second stage of this applied research (also in academic year 2013-2014) aimed at training CLIL teachers and creating a CLIL community of practice in Higher Education institutions through the ReCLES.pt network. During this stage, the collaborating partners prepared for training future CLIL teachers by laying the theoretical and practical framework for teacher trainers of this community and preparing adequate CLIL teaching materials and resources. Based on publications and papers/posters as well as multiple meetings (skype and face to face), and from best practice examples (in a shared database of related research), the partners used collaborative writing to produce a CLIL manual for teacher trainers – the *ReCLES.pt CLIL Training Guide – Creating a CLIL Learning Community in Higher Education* (also available online at <http://recles.pt/> under the tab Publications), which aims at facilitating the creation of CLIL modules and materials adapted to particular study areas and the preferred collaborative modes of each of the participating HE institutions.

This CLIL Training Guide uses the organizing principle that, in a CLIL construct, English is not used for communication alone, but to mediate knowledge, i.e. learning as a sociocultural construction of knowledge for which “students need opportunities to construct their own understanding of subject community knowledge, using appropriate frames of reference and vocabulary under expert tutelage” (Moate, 2010, p. 3).

In this stage, the *ReCLES.pt CLIL Training Guide* served as a guide for the local 10-hour training courses running in each participating institution, with 20 additional hours dedicated to assisted preparation of modules to be carried out by participating teachers in a classroom context. The teacher training courses, which took place from September to December, 2014, were carried out by the ReCLES.pt language specialists in each HE polytechnic and directed at other specialist staff previously identified and invited to take part in the project. The training sessions were run in a Community of Practice format (Wenger, 1998; Moates, 2010), where both the English language teacher and the specific subject teachers worked collaboratively in developing competences to use cognitive and social constructivist educational strategies to create, organize, implement, and assess a CLIL module in their own classes. In some of the local teacher training courses, the voluntary subject teachers’ English level was tested and accepted based on a minimum B2 CEFR level.

A key factor in this process that was especially valued by the subject specialists was the opportunity and time given to consider and discuss particular contexts for their respective subject areas (content organization models, methods used, forms of interaction with students, among others) as well as their own experience and

expectations regarding the prospect of teaching *through* English in order to identify how best to adequate these aspects to the CLIL framework. In an individual training log, one of the data collection tools used, a specialist teacher called attention to the fact that “the opportunity to talk about our difficulties and doubts in a friendly and known environment is very important.”

Before, during, and after the implementation of the modules (until the end of academic year 2014-2015), all specialist teachers also responded to pre- and post-implementation questionnaires and were interviewed after implementing their CLIL module. Students also completed a questionnaire about their own experience as learners in these CLIL modules.

## 4. The project in practice

The project was implemented in six different institutions following the CLIL framework and the ReCLes.pt CLIL project methodology. The specific characteristics of the community of practice and learning at each polytechnic are described in this section along with the unique CLIL modules created.

### 4.1. Estoril Higher Institute for Tourism and Hotel Studies

At the Estoril Higher Institute for Tourism and Hotel Studies (*Escola Superior de Hotelaria e Turismo do Estoril* – ESHTe), there were five specialist teachers selected to be a part of the first CLIL community of learning and practice. Some of the participants had previously taken part in a C1 conversation course organized by the ESHTe a couple of years earlier, while the others were assessed for speaking and writing to guarantee a minimum of B2 level in English. These specialist teachers, from areas as diverse as Event Management, Tourism and the Environment, Microbiology, Business Strategy, and Nutrition, completed the 10-hour training course divided in four weeks with an English language teacher who guided them through CLIL using the resources and methodologies outlined in the *ReCLes.pt CLIL Training Guide* (Morgado et al., 2015).

During the training sessions, which were based on a collaborative approach, many pedagogical concerns arose as part of the CLIL methodology. Specialist teachers were particularly concerned about the changes they would have to make in the syllabus to accommodate more student-centered strategies; they were apprehensive about the number of students in each class as well as students’ receptiveness to CLIL, namely in regard to assessment; and they also questioned the fact that adapting their classes to a foreign languages was going to be time-consuming, especially due to the scaffolding activities they had to envisage with students showing a wide range of learning styles and multiple intelligences. The teachers also found that they needed some support from an English language teacher throughout the implementation phase. Despite their B2-C1 level of English, some teachers also admitted having some difficulties in using classroom language in English, which was an aspect that was also addressed in one of the training sessions. These were concerns shared not only in the sessions but also registered on the individual training logs which were completed at the end of each session to provide more specific feedback about the activities conducted and the discussions that took place.

Throughout the training sessions, specialist teachers also had the opportunity to bring specific examples from their projected CLIL modules to get some advice and ideas from the rest of the participants about the best ways to adapt the content into CLIL classes where the exclusive focus was neither the content *per se* nor the development of specific competences needed in the specific subject, but the development of student skills in the English language. In addition, this adaptation also required a clear understanding and integration of cultural aspects (where code-switching in the classroom is sometimes necessary for a clear understanding of the specific or technical vocabulary in the Portuguese context) and more opportunities for communication through a greater focus on student-centered strategies. In general, specialist teachers valued these training sessions not only because they were introduced to the CLIL approach, which was new for them since they were only acquainted with English as a Medium of Instruction (EMI), but mostly because of the breadth of the discussion about pedagogy and teaching/learning methodologies, which they had never experienced, especially with such a diverse group of colleagues.

Between January and April 2015, six CLIL modules were implemented at ESHTe (in all the above-mentioned subjects, some repeated in the day and evening courses, with the exception of Microbiology), in a total of 18 hours (with sessions ranging from 2 to 3 hours each), and involving a total of 151 students from the 1<sup>st</sup> study cycle degrees in Cookery and Food Production (1<sup>st</sup> year), Hotel Management (3<sup>rd</sup> year), and Tourism Management (3<sup>rd</sup> year). In addition, though not considered in the scope of the ReCLes.pt CLIL project, the language teacher who conducted the CLIL training sessions also implemented the CLIL approach in a 3-hour seminar of the 1<sup>st</sup> study cycle degree in Tourism Information (3<sup>rd</sup> year) and in a 4-hour seminar on Markets and Trends of the PhD in Tourism, involving nearly 40 students.

Some of the methodologies adopted included collective creation by the students, for example, of the evaluation structure for an event through a problem-based learning (PBL) approach that simultaneously promoted the students' discussion skills and elicited specific cultural aspects associated with event management and production (in the degree in Event Management). Another application incorporated the analysis of specific codes of ethics and a cross-debate about tourism and sustainability which fostered the students' reading and oral communication skills (in Tourism and the Environment). Yet another example was the small-group tasks that required students to critically analyze hotel mission statements, thus promoting reading and oral discussion skills along with the construction of an understanding about what a company's mission statement should include (in Business Strategy). A final example was a critical discussion on carbohydrates followed by students' written reports about the subject (in Nutrition).

All these modules were monitored onsite either by the supporting English language teacher or by one of the peer specialist teachers, which gave each teacher first-hand critical comments on their modules and suggestions for improvement. In general, with the exception of students who assessed themselves as having a A2-B1 level and clearly experienced some difficulties in expressing themselves in English, students were very satisfied with their experience as CLIL learners and with the activities developed and, thus, supported the implementation of future CLIL



modules although they also showed some concerns about how assessment would be implemented in subjects being taught through a foreign language.

One of the main concerns after this implementation of specific CLIL modules rests on the absence of an institutionalized language policy that would clearly outline the future approach to CLIL and to subject classes to be taught through a foreign language. Concerns voiced by different members of the academic community identified hindrances to classes fully-taught through English as either the students who are less competent in the English language or how the needs of students who would still wish to be taught in their mother tongue would be met. Other problems identified were related to the assessment which could be conducted in a foreign language and the fact that many of the school's teachers are not proficient in English. As a result, in the following academic year (2015-2016), , and following a written and oral placement test in July 2015 given to more than 50 volunteer teachers, the school offered three English language courses for teachers and academic staff in each semester.

Implementation of CLIL-based courses at ESHTe has developed a renewed informal school culture, with more colleagues from different subject areas now collaborating in research papers and presentations in English, more colleagues speaking in English with one another during class breaks and lunch breaks organized for the sole purpose of communicating in English.

#### 4.2. Polytechnic Institute of Castelo Branco

The CLIL community of practice and learning at the Polytechnic Institute of Castelo Branco met over a semester, negotiating their content-specific cultures, their learning and teaching assumptions, and their explicit and implicit uses of English as a Medium of Instruction (EMI) within a CLIL approach among colleagues and with students during the piloting of the CLIL modules they had created.

The teacher practices included shared products, such as the verbal interactions during the 10-hour face-to-face teacher training sessions, as well as teaching logs, pre- and post-training questionnaires and *can do* lists, CLIL modules designed and piloted with students and post-piloting interviews, which will be presented through three case studies.

##### *Case study 1*

Case study 1 refers to a senior lecturer from the Agriculture College who devised a module on Pesticide Labels. With over 30 years of teaching experience, his English language self-assessment was an overall C1+ (CEFR), with C2 for listening and C1+ for reading. Before the training sessions, his self-assessment revealed confidence in his pedagogical skills, with the exception of *maintaining students' interest when teaching in English* although he revealed less confidence in materials to be used in class, terminology, and lecturing in English, including preparing notes or reacting to students. He also expressed concern with the lack of ability to explain language patterns to be able to give linguistic feedback to students.

After the training course, most of these aspects scored higher than before

although he still did not feel capable of giving linguistic feedback to students. During the post-piloting interview, however, he offered comments that relate to language, for example, that students had never heard of some of the irregular plurals in English that were needed to speak about the topic (e.g. *fungus-fungi*), which shows that he had explicitly thought about the learners' abilities and needs in FL.

#### Case study 2

Case study 2 refers to a senior lecturer from the School of Technology, specialized in Industrial Engineering, who developed a module on 3D Printing. With over 20 years of teaching experience, his self-assessed was a C1 level of English. He started by expressing concern that he would not be able to assess the students' levels of English for technical terms or maintain student interest when teaching through English since he might not be as expressive or engaging as in his mother tongue. He also expressed concern with explaining language patterns and giving linguistic feedback to students.

All these concerns diminished by the end of the training, with the exception of his ability to explain language patterns or giving linguistic feedback to students. In the post-piloting interview, he considered the overall training experience to be particularly interesting from a pedagogical perspective and as a teaching experience. He even noted that he had not found it more difficult to express his ideas effectively in a foreign language after all. Although classroom interaction and feedback from students was diverse (ranging from very good to indifference) in his six pilot graduate and postgraduate classes, he felt he would like to continue to experiment with CLIL by working in tandem with the English for Specific Purposes teacher who had collaborated with him in the planning and writing of the module.

#### Case study 3

Case study 3 refers to a content teacher from the School of Management, with over 12 years of teaching experience, who self-assessed himself at a B1-B2 level, despite being bilingual Portuguese and English, born and educated in South Africa. For his module on Time Management, he initially felt a lack of confidence in both assessing students' levels of English and correcting or making suggestions on students' written assignments, a confidence that was gained through the training course.

Like the teachers in case studies 1 and 2, he expressed concern regarding language-based rather than content-based aspects of CLIL teaching, such as being able to explain language patterns and give linguistic feedback to students or prepare written tests in English. Contrary to the experience of others, after the training, he felt less confident in several aspects, as if the piloting experience had opened his eyes to additional complexity, namely in adapting materials for CLIL and in aspects of his use of EMI, such as finding appropriate vocabulary when preparing written materials in English; identifying authentic material with the appropriate language level for his students; or creating own materials (worksheets, presentations, diagrams, hand-outs) in English to be used in class. His confidence also decreased slightly regarding his ability to prepare lecture notes in English; maintain student interest; explain himself clearly in class; answer student questions clearly when unprepared; and give appropriate examples spontaneously.

Nevertheless, during the post-piloting interview, he noted that his preparation



and implementation of the CLIL module had been very successful overall and particularly interesting as a teaching experience. In contrast to the teachers in case studies 1 and 2, he did not believe that he had developed more interactive and student-centered teaching methodologies or used more electronic media than when teaching in Portuguese nor did he believe that CLIL methodologies and strategies were very different from the ones he uses when teaching in Portuguese. This may be due to the fact that his own learning experiences were in South Africa, where perhaps learner-centered lessons are more common, and his bilingual competences in English and Portuguese.

### 4.3. Polytechnic Institute of Guarda

Before creating the teacher training group for CLIL at the *Instituto Politécnico da Guarda* (IPG), the Director of the School of Technology and Management (ESTG – Escola Superior de Tecnologia e Gestão) prepared a list of the teachers whom she hoped would be qualified for the training – a level set at B2 (Coyle, 1999, 2008; cf. Gierlinger on the L4C approach to include CLIL teachers of other levels), based on enrollment by international and ERASMUS+ students so that they could have more regular access to English-taught classes (Wachter & Maiworm, 2008; Doiz, Lasagabaster, & Sierra, 2013; Wachter & Maiworm, 2008, 2014). Simultaneously, the Portuguese host-school students could be exposed to quality teaching of these subjects through a foreign language (FL). English was selected as the target FL in response to the new linguistic diversity in the classroom and for greater internationalization, a direct result of the Bologna Agreement and its aims to harmonize the European Higher Education Area through a European credit transfer system and better conditions for student and staff mobility (Kirkpatrick, 2014; Morgado et al., 2015).

The teachers on the original list were filtered for B2 level (CEFR) and four were selected to join the community of practice and learning established at the ESTG-IPG, where their respective areas would be developed to equip them with strategies for teaching through English, with recourse to a range of scaffolding possibilities for their students to practise with the ICT-based strategies that helped to focus on the new terminological base of the content area to be acquired.

From Accounting to three different areas of Engineering – Civil, Environmental, and Computer – the content teachers and the language teaching specialist met over the course of 10 hours to debate and develop their skills. An area of great concern was the participants' own linguistic competence and the probability of finding students who would have greater skills in English, which was met by the concept of the language user (cf. Cook, 2002; Arau Ribeiro, 2015a, 2015b). The sheer usefulness of being able to use the FL as a means of communication, rather than as an end in and of its own, freed these teachers from these implied constraints and gave new meaning to their role in the CLIL classroom where they could be mediators and facilitators instead of role models for English usage. This constructive approach toward language use in the classroom which would not be strictly monolingual allowed for resort to the plurilingual resources of each of the participants – teacher and students. Together they could negotiate meaning in a relevant context that opened the possibilities

for more student contributions in class since they also embraced the objective of communication through the FL. Of special note was one student who alleged to never having had any English before but who was appropriately scaffolded in his learning experience with financial statements to carry out the project and present his results in English.

In considering the terminologically-based scaffolding activities, the use of word frequency lists and clouds was a motivating way to select out and visualize the terminology that would be most impactful for a given learning module. Some students realized that they actually had previous knowledge on a topic, the memory of which was reconnected for use in a specific task. Along with activation of this previously-acquired knowledge, it was also solidified through description, explanation and discussion to enhance understanding of the requisite vocabulary and its related ideas/concepts. Then, the information was specifically applied in a context specific to the areas under study, such as the financial statements referred to above or equations to calculate appropriate foundation in Civil Engineering.

Following the new Bloom's taxonomy of learning, students used the information in a new way, interpreting diagrams, scheduling maintenance appropriately, demonstrating their calculations, or choosing adequate tools to execute a project, to name just a few ways that new and remembered information could be exercised. To focus on higher order thinking skills (HOTS), activities were devised to encourage analysis, evaluation, and creation of new points of view or even new products, learners were asked to justify their decisions and recommendations, and then demonstrated the ability to distinguish between different parts of the processes that they had constructed.

In a computer course, students simulated meetings with their non-tech clients to explain and adjust their preparations for a database under construction. The client was played by the guest English teacher, who acted like the most difficult of business partners to provide opportunities for the students, in the role of computer software consultants, to solve problems spontaneously and in a fashion that could be considered reasonably coherent. Environmental Engineering students received support with rich images that prompted discussion and elicited the vocabulary that would appropriately describe the difficult ecological notions that concern all like-minded world citizens on planet Earth. Classroom observation notes recorded the fact that students were at first reticent to participate in a classroom situation which was initially interpreted as evaluative of their English level but were soon convinced that using their own levels of English was in fact the means to an end of working with a new and fascinating subject that has its own jargon and specialty language that would be obligatorily represented in the context of subject-specific formats.

The teachers participating in the community of practice and learning were excellent partners, debating, and discussing the joys and difficulties of relaying concepts and ideas through a language that is not their own. Their mutual trust and willingness to share in an open community of practice and learning was a promising beginning for this pilot phase of the project. Future communities of practice may be composed of less-willing participants, who may feel threatened by the need to communicate and

teach their subjects through English. Hopefully, the lessons learned and the models established through the CLIL ReCLes.pt project will remain an inspiration, supported by a desire to improve teaching methods and language competence in general.

#### 4.4. Polytechnic Institute of Portalegre

At the *Instituto Politécnico de Portalegre* (IPPortalegre), the five specialist teachers who were invited to participate in the 10-hour CLIL training course were selected for their experience in teaching ERASMUS students and for their proficiency in English (C1). The organization and content of the CLIL course modules and the resources used in the training sessions were mostly adapted from the *ReCLes.pt CLIL Training Guide* (Morgado et al., 2015) and complemented with resources and materials related to the particular specialized areas of the specialist teachers, namely Marketing and Advertising, Painting, Sculpture and Artistic Education, Cinema Studies, Psychology and Special Needs Education, and Industrial and Quality Engineering.

As a result of the CLIL ReCLes.pt training course, five CLIL modules were implemented at IPPortalegre although only two of them during the pre-established time span of the project. The planning of each CLIL module required additional hours (face-to-face meetings and e-mail exchanges) of collaborative work between the language specialist and the content teacher, mostly to explore the best way to scaffold the English materials to be used in class. This enriching collaborative process entailed the negotiation of some content topics and a close joint work ethic to adapt materials aimed at scaffolding student skills in learning English and specialty content. Thus, in the CLIL modules on Team Work in Early Intervention and CLIL in Primary Education, a long technical text was cut into sub-topics and re-arranged with summary titles; a list of procedures replaced a long descriptive paragraph; keywords were provided or highlighted in the text and synonyms inserted in parentheses; graphic organizers were added to better explain a more complex paragraph and post-reading activities with summary and gap-filling exercises were suggested as enrichment and synthesis of the content topic.

The data collected with the tools used for monitoring the implementation of the modules (CLIL module planning template, questionnaire to assess the CLIL module for teachers and for students, interview with content teachers) point to a very positive view of the CLIL module pilot experience, both for the teachers and students. Content teachers reported an overall very optimistic teaching experience, including the perception that the methodologies adopted for their CLIL modules facilitated the learning of the content in question and enhanced their participation in class.

Teachers highlighted as particularly positive the collaborative experience with the CLIL teacher trainer, an improved understanding of the students' language needs, and the fact that they had developed more student-centered methodologies than when teaching in Portuguese. Contrary to the expectations expressed after finishing the ReCLes.pt CLIL training course, the time spent preparing and adapting material was no longer perceived as a drawback or a difficulty for using a CLIL approach in the future.

As for the students, a few mentioned as less positive the inadequacy of the

materials used in the CLIL module for their own level of English, their uneasiness with participating in class in a foreign language, and an increased difficulty in expressing their ideas in English. Nevertheless, most of the students mentioned that, in comparison with learning in Portuguese, in the CLIL pilot module they had participated more in the different activities and had worked more extensively in collaboration with other colleagues. They also acknowledged that their understanding of both the specialty content and language had been enhanced by the classroom methodologies used. Particularly positive, and despite the complaints documented above, was the fact that some students with less English competence (eg. A2.1) were highly motivated with the CLIL strategies, as they felt they had been able to overcome the challenge of reading, understanding, and synthesizing a technical text in English.

In general, the subject specialists at IPPortalegre reported that the ReCLes.pt CLIL training course offered them a broad overview of the CLIL theoretical framework, its educational and pedagogical potential, and a comprehensive variety of teaching strategies and innovative pedagogical practices to use in their future classes taught through English and even in Portuguese “to work in class or individually”. Aspects central to the CLIL approach, such as highly interactive, student-centered communication in the classroom, the use of scaffolding strategies to enhance language and content acquisition, and the promotion of student autonomy and critical thinking skills were also recognized. Moreover, content teachers asserted the intention of integrating this new knowledge into their future teaching practice, thus affirming in the questionnaires that “the new tools in electronic media will be used to new approaches in my courses”; they also expressed willingness to continue exploring the CLIL approach further and in a broader forum, commenting that “it will be very good to have more workshops with a big group of our colleagues to discuss all these subjects before real application”.

The concerns voiced were mainly regarding the assessment of student levels of language and the choice and adaptation of materials to their needs. The data collected in the pre- and post-training assessment questionnaires by the specialist teachers indicate that, on the whole, the CLIL training course afforded teachers a more positive attitude towards foreign language learning as a lifelong activity for both students and teachers and gave them more confidence in their ability to learn the strategies and tools to use a CLIL approach in their classes.

#### **4.5. ISCAP-Porto Polytechnic**

The implementation of the CLIL project at ISCAP (Porto Polytechnic) was and is still necessarily different from what our partners are doing, due to the fact that the ISCAP content teachers have been teaching Erasmus students in English for a number of years. Due to this scenario, a slightly different strategy has been adopted to articulate the syllabi of the English language classes with those of the content classes so that the English classes would integrate content-specific materials and the content classes would apply linguistic strategies.

With this approach in mind, the organization of a CLIL learning community at ISCAP based on ReCLes.pt project also pursued the purpose of contributing to

improve the teaching and learning process of our Erasmus Students, following the established training model. Some teachers who had been teaching in English in our existing Erasmus syllabus, and who assessed their English at a B1/B2 level, were invited to join the project and the CLIL teacher training sessions.

The community of practice and learning met four times to complete the 10 hours of training. When asked to describe their reasons for joining the course, they indicated that they had all been teaching Erasmus students for some years and had never reflected on any different approaches than those already used to teach their respective content in Portuguese.

As a first step, an explicit introduction to CLIL, both as a concept and as a practice, provided teachers in this learning community with an understanding of CLIL and its principles. Due to their previous experience with Erasmus students and working in English, their initial view was that the preparation of their lectures and materials in English was an easy task and they were rather at ease with most of the topics raised during the teacher training course. In the pre-training self-assessment, 50% of the participants were quite able to select their materials, create their own materials to be used in class, spontaneously react to student activity, and evaluate their students' work although they found it rather difficult to explain themselves clearly in class. However, the training sessions resulted in their development of a more critical analysis of their activities in the classroom. In fact, by the end of the course, some of the participants said that it was now more difficult to identify whether their own material had the appropriate level of English and a greater challenge to adapt the original materials to student needs.

Overall, the reflections of the participants at the end of the course are varied but also predictable. For the E-commerce teacher, CLIL sessions helped increase her awareness of issues related to identifying and adapting class materials to an appropriate level of English. She felt better prepared to master terminology and design original materials as well as comment on and correct students' linguistic performance. For the Statistics teacher, CLIL sessions were especially relevant to help maintain students interested by using more authentic materials in English and also by providing feedback on their linguistic competence. She is convinced that quality will thus be more similar to that of her classes in Portuguese.

The Public Relations teacher found that CLIL sessions helped her improve her teaching of Erasmus students in general. She emphasized her growing ability to identify an appropriate level of English and her own class explanations as the areas in which the course was more helpful. Finally, the Financial Mathematics teacher considered CLIL sessions a powerful contribution to her teaching of Erasmus students in general, highlighting her use of technical vocabulary and terminology as the areas in which the course was more decisive.

As an overall result, data confirm that the content teachers are now more aware of the importance of their role as CLIL teachers and feel they can improve their teaching resources also by collaborating with the English language teachers. Another interesting result is the fact this course greatly contributed to reinforce interdisciplinarity within ISCAP by opening a space for the possibility of collaboration

and joint work between colleagues of the Languages and Culture Department and other departments. In fact, after the course, the English and content teachers decided to collaborate and share contents in order to improve their pre-existing materials. Thus, to further implement the project and the pilot modules, they decided to align the summer semester's B2 and C1 English syllabi with those of content classes in E-Commerce and Financial Mathematics, covering a minimum of 12 hours of the respective courses.

Currently, further CLIL research, training and experiments are being developed at ISCAP, not only to obtain data and feedback but also to further develop the terminology-based approach designed and implemented during the ReCLes.pt CLIL project. Although no assessment tool has been applied yet, feedback from those teachers has been enthusiastic and motivating.

#### **4.6. Polytechnic Institute of Bragança**

Bragança introduced English-taught degrees in 2011 as part of an internationalization policy which began focused on the field of Management and later spread to eight other bachelors and masters-level degrees, attracting both Portuguese and international students. For the ReCLes.pt CLIL project, the degree in International Business Management, with its European label, was chosen for the implementation also because of the expected enrollment of students from different nationalities and backgrounds, which presents a challenge for teachers who use English as a medium of instruction.

The six participating teachers taught the second year of the degree in a number of core areas. They were tested for their language proficiency at level C1, with exception of one highly motivated high level B1, who was nevertheless invited to participate. Despite the teachers' high level of proficiency in English, they were well aware that they lacked some pedagogical preparation to teach through English and that was one of the main reasons why they chose to take part. The concept of CLIL was also a novelty but, after the first theoretical elicitation, they understood that the methodology could work positively for their specific teaching context.

Most of the students also evaluated themselves as level B2-C1, which was validated in their receptive skills. When faced with the students' linguistic self-assessment, the teachers accepted the results but added that many of the students also struggled with terminology and linguistic issues in their assorted mother tongues, explaining that this could have negative repercussions in learning through English.

Five modules were designed and later implemented, specifically in Economy, Auditing, Statistics and Quality Management, Information and Communication Technology, and Mathematics for Management. The initial difficulties stressed by the teachers when working with a CLIL approach were primarily related to the awareness that the approach to their specific subject area had to be changed and that this would be rather time-consuming. After some negotiation, the group concluded this needed to be done sooner rather than later. The diversity of possible approaches for one topic in a specific subject was regarded as very interesting, as well as the revelation of a set of classroom language skills. Most of the resources proposed during the four



training sessions and through the ReCLES.pt CLIL Training Guide were considered “very useful”. The ICT teacher even made suggestions of other tools which could be used for certain objectives.

Teachers described their overall involvement in the ReCLES.pt CLIL project, for example, as “a wonderful new world” and “highly motivating”. The group became aware that many of the students’ difficulties throughout their courses were, in fact, related to linguistic issues and that this had received a new impulse and improvement through the CLIL approach.

The main result from the IPBragança community of practice and learning was the introduction of a placement test for all students in the 1<sup>st</sup> year of this degree. If their level is not B2, they are sent for improvement courses at the Polytechnic Language Centre. The teachers have adapted their courses, now clearly distinguishing between objectives and learning outcomes. The evaluation of the courses was also partially changed with the introduction of a practical section which includes scaffolded activities and tasks, like terminological databanks and WebQuests in Micro-Economics.

While implementing their CLIL modules, the teachers were supervised by the language specialist who observed the students’ reactions and the regular procedures of the class. In fact, most of the teachers proposed the ideal situation, where the language specialist would always provide some feedback while the modules were being created and implemented, to contribute to their confidence and provide the opportunity for tandem work among teachers, which was a novelty at the institution.

## 5. Conclusion

During the teacher training course and subsequent CLIL module development, which aimed to be more of a community of practice and learning than an in-service training, English language specialists and content teachers all learned and worked collaboratively. Together, they discovered how to set up CLIL modules that would work for their particular contexts and, in the process, they gained an understanding of how to simultaneously scaffold students in acquiring foreign language competence. The community activities included negotiating and reconstructing subject-matter and enhancing, enriching, comparing, analyzing, synthesizing, and re-dimensioning certain content topics.

One of the major cultural challenges during the teacher training was to facilitate the content teachers’ understanding of the need to focus on the students and on themselves as language users (Arau Ribeiro, 2015a, 2015b; Arau Ribeiro et al., 2015c). Despite their diversity of backgrounds and learning and teaching experiences, most teachers had been unaware of the power of this perspective. Another related challenge was to accept and understand the emphasis on using language for communication and learning about specific subject content and the concomitant use of scaffolding to support learning.

Because scaffolding is not limited to text or corpus analysis of language features like lexis and grammar, the CLIL approach requires negotiation across cultures of and for learning and teaching. The ReCLES.pt CLIL communities of practice and learning

in Higher Education invited content and language specialists to join in a common goal of designing effective courses to be taught through English. This collaborative interdisciplinary approach to teacher training brought participants together to acknowledge and define the communication and cultural discourses needed by all those involved – the students, teachers, and researchers – in their particular academic, professional, and scientific contexts.

The ReCLes.pt CLIL project is, as stated at the beginning of this article, an ongoing project which has given rise to a community of practice and learning in Higher Education across Portugal. In the institutions involved, teachers have recognized the benefits of having gained a new perspective on how to teach through a foreign language and have acknowledged this perception as a challenge for improving their teaching on a daily basis.

Many Portuguese HE institutions consider that both internationalization and teaching in English has also given rise to a new target audience. As such, knowing how to teach through English is a recognizable plus for the careers of participating specialty teachers; taking on this challenge – whether individually or institutionally – may constitute an overall pedagogical innovation and improvement for Higher Education.

## References

- Airey, J. (2011). The disciplinary literacy discussion matrix: A heuristic tool for initiating collaboration in Higher Education. *Across the Disciplines*, 8(3). Retrieved from <http://wac.colostate.edu/atd/clil/airey.cfm>.
- Airey, J. (2012). “I don’t teach language”. The linguistic attitudes of physics lecturers in Sweden. *AILA Review*, 25 (pp. 66-72). Amsterdam: John Benjamins Publishing.
- Arau Ribeiro, M. (2015a). Presenting the L2 User: Considerations on foreign language psychology and teaching. *Revista de Estudio e Investigación en Psicología y Educación: Actas del XIII Congreso Internacional Gallego-Portugués de Psicopedagogía*. Vol. Extr., núm. 09 XIII Congreso Psicopedagogía. Área 9: Lenguaje, Comunicación y sus Alteraciones, (pp. 34-38). Retrieved from <http://congresopsicopedagogia.udc.es/actas-do-congreso.html>
- Arau Ribeiro, M. (2015b). Some Lessons Learned: The ReCLes.pt CLIL project in Higher Education. *e-TEALS – An e-journal of Teacher Education and Applied Language Studies*, 6 (pp. 20-37). Retrieved from <http://www.degruyter.com/view/j/eteals.2015.6.issue-1/eteals-2016-0002/eteals-2016-0002.xml>
- Arau Ribeiro, M., Silva, M., Morgado, M., & Coelho, M. (2015c). Promoting Dynamic CLIL Courses in Portuguese Higher Education: From design and training to implementation. *CASALC Review*, 5(1). Retrieved from <https://www.cjv.muni.cz/cs/wp-content/uploads/sites/2/2016/04/cr-2-15-16-arau.pdf>.
- Ball, P., & Lindsay, D. (2013). Language Demands and Support for English-Medium Instruction in Tertiary Education. In A. Doiz, D. Lasagabaster, & J. M. Sierra (Eds.), *English-medium Instruction at Universities. Global Challenges* (pp. 44-61). Bristol: Multilingual Matters.
- Castro, P., Lundgren, U., & Woodin, J. (2013). *Conceptualizing and assessing*

- international-mindedness: (IM) An Exploratory study*. The Hague: International Baccalaureate.
- Clegg, J. (2011). Teaching and Learning in two languages in African classrooms. *Comparative Education* 47(1), (pp. 61-77).
- Coyle, D. (2008). CLIL – a pedagogical approach. In N. Van Deusen-Scholl, & N. Hornberger, *Encyclopedia of Language and Education*, 2nd ed. (pp. 97-111). New York, NY: Springer.
- Dafouz, E., & Sanchez Garcia, (2013). ‘Does everybody understand?’ Teacher questions across disciplines in English-mediated university lectures: An exploratory study. *Language Value*, 5(1), (pp. 129-151). Retrieved from <http://www.e-revistas.uji.es/languagevalue>.
- David, C. (2013). Linguistic Hegemony or Linguistic Capital? Internationalization and English-Medium Instruction at the Chinese University of Hong-Kong. In A. Doiz, D. Lasagabaster, & J. M. Sierra, (Eds.), *English-medium Instruction at Universities. Global Challenges*. Bristol, Multilingual Matters.
- Doiz, A., Lasagabaster, D. & Sierra, J. (eds.) (2013). *English-medium Instruction at Universities. Global Challenges*. Bristol, Multilingual Matters.
- Freebody, P., Maton, K., & Martin, J. (2008). Talk, text and knowledge in cumulative, integrated learning: A response to ‘intellectual challenge’, *Australian Journal of Language and Literacy*, 31, (pp. 188-201).
- Gierlinger, E. M. CLIL – Teachers’ TL competence. *CLILingmesoftly: The practice and theory of CLIL*. Retrieved from <https://clilingmesoftly.wordpress.com/clil-teachers-tl-competence/>
- Jacobs, C. (2015). Mapping the terrains of ICHLE. In R. Wilkinson & M. Walsh (Eds.), *Integrating content and language in Higher Education. From theory to practice. Selected papers from the 2013 ICHLE conference* (pp. 21-38). Frankfurt am Main: Peter Lang.
- Kirkpatrick, Andy (2014). The language(s) of HE: EMI and/or ELF and/or multilingualism? *The Asian Journal of Applied Linguistics* 1(1), (pp. 4-15). Retrieved from <http://www3.caes.hku.hk/ajal/index.php/ajal/article/view/23>
- Moate, J. (2010). The integrated nature of CLIL: A sociocultural perspective. *International CLIL Research Journal*, 1(3), (pp. 38-45). Retrieved from <http://www.icrj.eu/13/article4.html>
- Moliner Bernabé, M. (2013). The Effects of CLIL from the Perspective of In-service Teachers in Salamanca (Castilla y León, Spain). *Exedra Revista Científica Educação e Formação*, 8. Retrieved from <http://www.exedrajournal.com/wp-content/uploads/2014/09/14.pdf>
- Moore, E., & Dooly, M. (2010). ‘How do apples reproduce (themselves)?’ How teacher trainees negotiate language, content, and membership in a CLIL science education classroom at a multilingual University. *Journal of Language, Identity, and Education*, 9, (pp. 58-79).
- Morgado, M., Coelho, M., Arau Ribeiro, M. C., Albuquerque, A., Silva, M. M., Chorão, G., Cunha, S., Gonçalves, A., Carvalho, A. I., Régio, M., Faria, S., & Chumbo, I. (2015). *ReCLES.pt CLIL Training Guide: Creating a CLIL Learning Community in Higher Education*. Santo Tirso, Portugal: De Facto Editores and ReCLES.pt. Retrieved from <http://paol.iscap.ipp.pt/~paol/docentes/recles/CLILTrainingGuide.pdf>

- Phillipson, R. (2009). English in Higher Education. Panacea or pandemic? In P Harder (ed.), *Angles on the European-speaking World: English in Denmark: Language Policy, Internationalization and University Teaching*, 9, (pp. 29-57). Copenhagen: Museum Tusulanum.
- Smit, U., & Dafouz, E. (eds.) (2012). Integrating Content and Language in Higher Education. Gaining Insights. *AILA Review*, 25, (pp. 1-12). Amsterdam: John Benjamins Publishing.
- UNESCO (2014). *Global Education for All*. 2014 GEM Final Statement – Muscat, Oman. The Muscat Agreement. Retrieved from <http://www.uis.unesco.org/Education/Documents/muscat-agreement-2014.pdf>.
- Unterberger, B. (2012). English-medium programmes at Austrian business faculties: A status quo on national trends and a case study on programme design and delivery. *AILA Review*, 25, (pp. 80-100). Amsterdam: John Benjamins Publishing.
- Van der Walt, C., & Kidd, M. (2013). Acknowledging Academic Bilingualism in Higher Education Assessment Strategies. In A. Doiz, D. Lasagabaster and J. M. Sierra (Eds.), *English-medium Instruction at Universities. Global Challenges* (pp. 27-43). Bristol: Multilingual Matters.
- Wachter, B., & Maiworm, F. (eds.). (2014). English-taught programmes in European Higher Education: The state of play in 2014. Bonn, Germany: Lemmens. Retrieved from [http://www.aca-secretariat.be/fileadmin/aca\\_docs/images/members/ACA-2015\\_English-Taught.pdf](http://www.aca-secretariat.be/fileadmin/aca_docs/images/members/ACA-2015_English-Taught.pdf)
- Wenger, E. (1998). *Communities of Practice: Learning, Meaning, and Identity*. New York: Cambridge University Press.
- Wilkinson, R. (2013). English-medium Instruction at a Dutch University: Challenges and Pitfalls. In A. Doiz, D. Lasagabaster & J. M. Sierra (Eds.), *English-medium Instruction at Universities. Global Challenges* (pp. 3-24). Bristol: Multilingual Matters.
- Yano, Y. (2013). World Englishes in 2000 and beyond. *World Englishes*, 20 (2), (pp. 119-132). Wiley Online Library.