

# **APPLYING PRINCIPLES OF CLIL TO ESP IN HIGHER EDUCATION**

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## **1. INTRODUCTION**

A debate on using the content of other subjects as an organising principle of language courses emerged long before the concept of content and language integrated learning (CLIL) was introduced to the language teaching methodology. For example, Larsen-Freeman (2000: 137-138) in her analyses of the so called content-based instruction (CBI) refers back to the “language across the curriculum movement for native English speakers in England, which was launched in the 1970s to integrate the teaching of reading and writing into all other subject areas” and stresses the need for “clear language objectives as well as content learning objectives”. Similarly, Yalden (1996: 61-66) in her classification of various types of language syllabi defines the concept of “subject-matter syllabus” and besides, she comments on its complex nature and the related key role of psycholinguists supporting the processes of teaching the content of another subject by means of a foreign language.

Richards and Rodgers (2001: 151) rank CBI among current communicative approaches as they perceive it as “a logical development of some of the core principles of Communicative Language Teaching, particularly those that relate to the role of meaning in language learning”. They also elaborate on various models of CBI and list the following curricular implications at the level of university language courses (2001: 216-17):

- *theme-based language instruction*, i.e. “a language course in which the syllabus is organised around themes or topics such as “pollution” or “women’s rights”;
- *sheltered content instruction*, i.e. “content courses taught in the second language by a content area specialist to a group of ESL learners who have been grouped together for this purpose”;
- *adjunct language instruction*, i.e. “students are enrolled in two linked courses, one a content course and one a language course, with both courses sharing the same content base and complementing each other in terms of mutually coordinated assignments”;
- *team-teach approach*, as a variation on the adjunct approach specifying the expected roles of the language teacher and the subject teacher;
- *skills-based approach*, “characterised by a specific focus on a specific academic skill area” (e.g. academic writing).

Today’s models of CLIL still demonstrate a high degree of resemblance to the initial proposals of CBI. Nevertheless, since the 1990s when the concept of CLIL was introduced, it has evolved into a well thought-out area which reflects the original principles of CBI and at the same time, it draws on the specifics of each particular educational context. There are numerous studies of CLIL in horizontal perspective, showing the differences in educational policies in various European countries (Key Data 2008), as well as vertically-designed analyses of the efficiency of CLIL at various levels of educational systems carried out both by language theorists and practising teachers as action researchers. Both types of the above mentioned analyses stem from the current view on CLIL as “a dual focused educational approach in which an additional language is used for the learning and teaching of content and language with the objective of promoting both content and language mastery to pre-defined levels” (Marsh, Wolff 2007 in CLIL-CD 2011) and they generate invaluable practical implications for CLIL teaching in all types of educational settings. In our further analyses, we will focus on the potential of applying the principles of CLIL within the tertiary sector and we will also address some of the related issues of teacher professional competence.

## 2. CONTEXT

In order to conceptualise CLIL at the tertiary level, a main inspiration could be found especially in the model elaborated by Greere and Räsänen (2010) within the LANQUA project who call for a shift from the *non-CLIL* stage towards the genuine *dual-focused CLIL*. The initial stages of *non-CLIL* and *pre-CLIL* teaching are characterised by a separate co-existence of the subject-specific content and the content of a foreign language, which later reach their meeting point in the area of language for specific purposes (LSP) or the so called discipline-based language teaching. The subsequent stage of *partial CLIL* refers to the efforts of the language specialist in the area of language for academic purposes (LAP) providing relevant skills prior to the actual subject-specific content as well as to the attempts of the subject specialist to teach the specific content via a foreign language. Unlike the above mentioned lower levels of the model, its top stages of *adjunct CLIL* and *dual-focused CLIL* are directed towards full integration of content and language teaching. Therefore, they require very close collaboration between the language and subject specialists who should define and pursue specific learning goals both in terms of the development of language skills and the mastery of content, including the implementation of adequate assessment schemes for measuring the learning outcomes.

## 3. TOWARDS CLIL AT THE UNIVERSITY OF PARDUBICE

CLIL is one of the priorities the University of Pardubice concentrates on within its long-term development plan. Due to the University's language policy, CLIL concerns only English, no other foreign languages being planned for dual-focused teaching. In the process of transition from non-CLIL to CLIL, the University has been facing numerous challenges, including big numbers of students with a low entrance level of English language competence, a broad diversity of study programmes, a wide range of professional and language needs, and a limited time for collaboration between language teachers and subject specialists. Consequently, non-CLIL and pre-CLIL teaching prevails for the time being, which means that special subjects are taught in Czech, and ELT is provided by means of low-level general English courses (A1) and ESP courses

reflecting the specifics of professional specialisation of the students at various faculties. This concerns mainly students of Bachelor's programmes.

Some of the faculties are more advanced than others as far as heading towards dual-focused CLIL is concerned. One of them is the Faculty of Electrical Engineering and Informatics (FEEI). At the moment, most ELT at this faculty is at a transitional stage from pre-CLIL to partial CLIL. The content is delivered exclusively by the faculty staff, some of whom give lectures or seminars in English, provide supportive material in English or assign the students obligatory reading from technical texts in the English original. ELT is catered for by the staff of the University's Language Centre who use mostly ESP, partly also EAP and general English course books and materials. While in the case of the content delivery provided by the FEEI staff the skills the students can practise are almost exclusively receptive, the language teachers focus on the complex language development of their students, supporting progress in their productive as well as receptive skills. Keeping in mind the achievement of the University's final goal, dual-focused CLIL, the English teachers have initiated collaboration with the FEEI staff in needs analysis, assignments and the development of the students' presentation skills. For example, a list of topics for technical presentations was composed by some of the subject teachers for the students to choose from for the purpose of a presentation in their English class. The most advanced step towards CLIL at the FEEI has been made in the PhD programme, within which the examination in English is organised in the form of a simulated conference. During the conference, the students present their research and theses to their colleagues and the examination board consisting of two FEEI subject specialists and one language teacher who jointly assess the presenters' performance. Similar PhD conferences are held at the Faculty of Chemical Technology and the Faculty of Transport.

Transition from non-CLIL to dual-focused CLIL is a gradual, complex and also costly process. At the University of Pardubice this process is now supported by a three-year project titled UNICOM - Innovative and Integrated Concept of Language Training towards Quality Assurance, Excellence and Internationalisation. The project has been running since January 2012 and will be completed by the end of 2014. It has won funding from the ESF, and the University relies on its added value in terms of transition towards CLIL. Figure 1 below illustrates how language learning will be enhanced and shows some of the specific forms of teaching that will be used within the project.

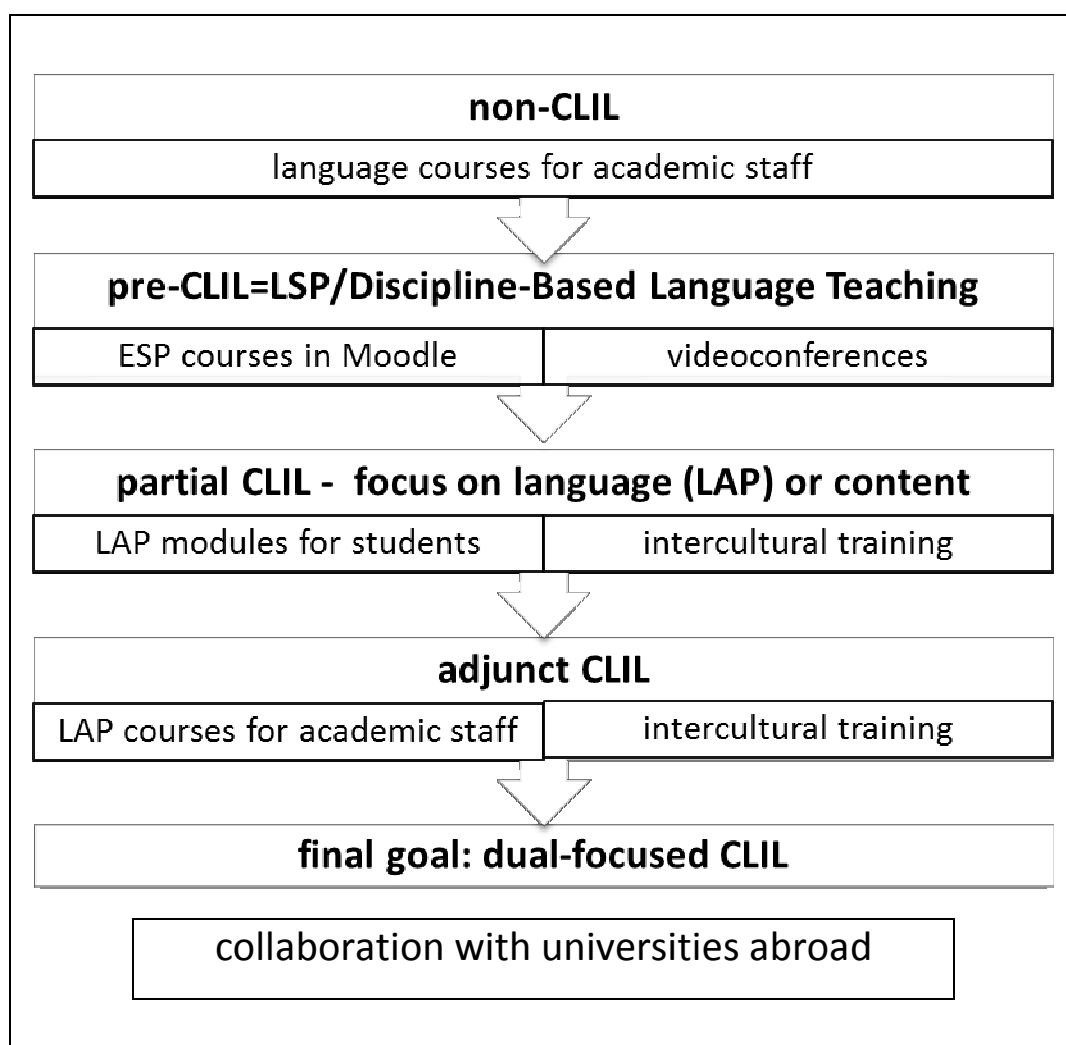


Figure 1: The added value of the ESF project in terms of transition towards CLIL at the University of Pardubice

The new modules or courses as well as intercultural training and videoconference sessions will be organised in collaboration with partner universities and institutions abroad. Since the core of the model of transition towards CLIL in our university setting could be still seen mainly in the pre-CLIL stage, the following considerations of the teachers' readiness to apply the principles of CLIL in their daily work relate to the area of ESP.

#### 4. IMPLICATIONS FOR THE KNOWLEDGE BASE OF ESP TEACHERS

Owing to the current shifts in the area of ESP, not only the above mentioned

important implications in the area of syllabus/course design should be stressed but also some fundamental questions concerning the nature of ESP teacher professionalism have to be posed. The growing demands on ESP teacher cognition are often expressed in terms of ever-existing tensions within the domain of ESP teachers' knowledge: their own subject-specific, i.e. language knowledge, vs. their students' specialist content knowledge.

In order to apply desirable multiple perspectives on the nature of ESP teaching it might be helpful to refer back to Shulman's category of the so called pedagogical content knowledge (PCK) defined as "blending the content and pedagogy into an understanding of how particular topics, problems, or issues are organised, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction" (Shulman 1986: 8). This category represents a specific quality possessed only by teachers compared to other specialists, for example in the area of languages it distinguishes between a professional teacher of English and a professional linguist. However, the situation in ESP is much more complex as the teachers are expected to blend not only pedagogy with linguistic content but also with the specialist one. From the perspective of the taxonomy of PCK suggested by Veal and MaKinster (1999: 7), we might conclude that the area of ESP reveals an interesting paradox that on everyday basis, ESP teachers have to demonstrate the use of their topic-specific PCK, e.g. the language of negotiations within the import-export business, while obviously lacking a relevant part of the pre-condition for this kind of knowledge at a more general level which is the so called domain-based PCK, i.e. the potentially insufficient knowledge in the area of business studies compared to the well-established one in the area of language studies.

Unlike the research-based implications in the area of ESP syllabus design, little has been written on the ESP teacher competence. However, recent analyses in this field have brought about some interesting theoretical perspectives which are definitely worth mentioning. Wu and Badger (2009) summarise the relevant research outcomes from previous two decades and, for example, they refer back to the characterization of ESP teachers according to Hutchinson and Waters (1987, in Wu and Badger 2009: 20) as "reluctant dwellers in a strange and uncharted land". Besides, they highlight the key assumption concerning the ESP classroom expressed by Dudley-Evans (1997, in Wu and Badger 2009: 20) that "the nature of the communication is made very distinctive by

the difference in the subject knowledge between the students and the language teachers”, thus implicitly referring to the potential of genre analysis as a tool of communication within the specific community of professionals or scientists. At the same time, practical applications of genre analysis within ESP classes might represent a huge challenge related to the structure of PCK since according to Cochran, King, De Ruiter (1991, summarised e.g. by Janík 2009: 44), the knowledge of the teacher is structured from the perspective of teaching-learning processes while the knowledge of the scientist is structured from the perspective of research.

In their inspiring analysis, Wu and Badger (2009) also pose the question of what is the “carrier content” (a means) and what is the “real content” (an end) of ESP teaching and then they further elaborate on the possible ways how the teachers might deal with the difficulties appearing in the language classroom due to their insufficient specialist content knowledge. By means of the empirical research carried out in Chinese educational context, they come up with an outline of categorisation of various strategies and tactics how to deal with the so called in-class subject knowledge dilemmas – avoidance strategies (moving to next topics, changing example sentence, focusing on morphology) and risk taking strategies (using literal translations, asking the students).

In response to the above presented analysis carried out by Wu and Badger (2009), Lowe (2010) provides his arguments why, on the contrary, the “ESP teachers must teach specialist content”. He very strongly expresses the view that “for an ESP learner, language is a means to an end” (Lowe 2010: 5) and formulates the following conclusions (Lowe 2010: 6-7):

1. Content must lead language –even for weak students.
2. Authentic content and authentic skills (for the early-stage professionals to function well in a foreign language).
3. Teaching content is possible while simultaneously deferring to and exploiting the expertise of colleagues and students.
4. We must avoid humiliating our students by giving them material below their professional level.
5. We must provide authentically difficult material and set authentically difficult tasks.

Both the commentaries of Wu and Badger (2009) and Lowe (2010) in fact address the essential issues of forming the specific PCK of ESP teachers. In order to carry out a desirable deeper analysis of this particular category, it might be very helpful to use the theoretical categorization suggested by Gess-Newsome (in Gess-Newsome and Lederman 1999) who distinguishes between integrative and transformational models of teacher cognition. For the integrative models, the chemistry-based metaphor of “mixture” of the integrated but potentially separable key components (i.e. pedagogical knowledge, subject matter knowledge, contextual knowledge) is used while for the transformative models, the metaphor of “compound” representing a completely new quality is suggested. A partial summary of the specifics of both models is stated in Figure 2.

	<b>Integrative model</b>	<b>Transformative model</b>
<b>Knowledge domains</b>	Knowledge of subject matter, pedagogy, and context are developed separately and integrated in the act of teaching. Each knowledge base must be well structured and easily accessible.	Knowledge of subject matter, pedagogy, and context, whether developed separately or integratively, are transformed into PCK, the knowledge base used for teaching. PCK must be well structured and easily accessible.
<b>Teaching expertise</b>	Teachers are fluid in the active integration of knowledge bases for each topic taught.	Teachers possess PCK for all topics taught.

Figure 2: Overview of Integrative and Transformative models of teacher cognition (Gess-Newsome and Lederman 1999: 13 - incomplete)

Unlike our previous analyses in the area of the cognition of the teachers of general English, where the transformative models were prioritised (Brebera 2010: 106), in the case of the specific ground of developing the ESP teacher’s professional competence we suggest the two-stage model comprising the aspects of both the transformative and integrative approaches. The primary development of PCK based on the domain-specific



language studies should be of a transformative nature and –using the Shulman-like terminology– directed towards a sufficient “amalgamisation” of linguistic content and pedagogy. However, the essential subsequent step of integrating the subject-specialist content knowledge into ESP, which potentially draws on the power of genre analysis, seems to be primarily of an integrative nature as it is absolutely necessary to carry out an ongoing analysis of the relevant aspects of course design (i.e. assessing needs, formulating goals and objectives, developing materials, designing an assessment plan, organizing the course, conceptualizing content –according to Graves 2000: 3) and therefore, to be well-aware of the role of both essential kinds of input, i.e. the linguistic input and the subject-specialist one, at all stages of the teaching-learning processes.

## 5. CONCLUSION

It is the very nature of CLIL that makes it impossible to give any uniformly applicable guidelines for transition to its dual-focused stage in higher education. Inevitably, and as also implied above, more research needs to be done and more debates should be held on local, national as well as international levels to help teaching professionals cope with the demands of the current language policies throughout the EU.

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