

Teaching English at the university: A shared experience

Mònica Feixas

Eva Codo¹, Digna Couso², Mariona Espinet³ and Dolors Masats⁴

Department of Applied Pedagogy

Faculty of Education

Universitat Autònoma de Barcelona

(1) Department of English and German Philology. (2 and 3) Department of Education in Math and the Experimental Sciences. (4) Department of Education in Language, Literature and the Social Sciences.

Abstract

The study discussed in this article compiles a set of reflections of a group of six educators from different departments within the Faculty of Education on the experience of teaching their courses in English in the Foreign Language Teaching degree programme, as well as some teaching strategies they have used to make it more effective.

The prior experience and the exchanges held over the course of two academic years (2005-06 and 2006-07) as part of this project enabled us to conduct a preliminary analysis of the challenges entailed in teaching the (non-language) courses in a second language (English) in the Catalan university system, and specifically of the advantages and difficulties of conducting Content and Language Integrated Learning (CLIL).

The advantages include the fact that learning the language is framed in a real context and students work on contents and develop linguistic skills at the same time. However, for the teachers it means testing and sharing innovative teaching strategies, as well as keeping up a high level of English competence. The main difficulties are related to the students' mastery of the language, the faculty's ability to convey the contents and motivate the class work and homework in a second language, and their ability to choose the most appropriate strategies and teaching resources.

General area of interest of this innovation

This innovation could be of interest to professors who are interested in learning the advantages and disadvantages of content and language integrated learning, who analyse the processes of teaching and learning in a given discipline in a second language, and/or who are thinking of teaching or are already teaching university courses in English.

1. Objectives

The purpose of the project is to improve the English communicative competences of students in Teacher Training (Foreign Languages) by teaching the non-language courses in English. During academic years 2005-06 and 2006-07 (the period when this project was being implemented), the following courses were taught in English: Mathematics I (core course), Basic Issues in the Sciences (elective) and Educational IT (core course) from the first year; Teaching the Sciences (elective) from the second year; and School Organisation (core course) from the third year.

The goals were as follows:

1. To improve the language skills of the students in the degree programme so that they could reach the level of English mastery needed in the jargon from the world of education (jargon related to teaching, school organisation, mathematics, sciences and the new technologies) in the five areas in which a language is learned: oral comprehension (listening), oral expression (speaking), written comprehension (reading), written expression (writing) and communicative interaction.
2. To support the faculty involved by helping them to draw up and translate teaching materials in English.
3. To analyse the difficulties students face in attaining the cognitive-linguistic skills needed to successfully complete each course and to seek teaching strategies to overcome these difficulties.
4. To improve the coordination among teachers from the different departments, specifically those who were teaching the courses in English.

2. Description of the project

2.1. Context of the project

Teaching courses in third languages is one of the priorities of DURSI, the UAB, the Faculty of Education and the degree programme in Foreign Language Teaching. This is a degree programme that constantly seeks new ways of improving its students' language skills, especially oral and written expression in third languages.

Based on the twofold goal of contextualising the use of the foreign language and increasing the number of contact hours with this language, the initiative of teaching non-language courses in English emerged as a pilot experience. Therefore, eight academic years ago, the course on School Organisation began to be taught in English.

This year, the university context has changed based on the process of adapting its degree programmes to the Bologna directives, making teaching courses in English even more timely. In fact, starting in academic year 2004-05, the Academic Regulation Committee of the Universitat Autònoma de Barcelona began to recognise teaching in third languages for credits. Given this new framework, the coordinator of the degree

programme and the professor who had participated in the pilot project decided to go one step further.

The initiative came to fruition in a project to improve teaching quality (MQD) and the creation of a working group that includes the faculty who have decided to teach their courses in English (Mathematics I, Educational IT, Teaching the Sciences, Basic Issues in Science, and School Organisation) and the coordinator of the degree programme (part of the Department of Language Teaching). The experience gained in the pilot (Feixas, 2005) served as a point of departure.

2.2. Teaching approaches centred on Content and Language Integrated Learning (CLIL)

According to Marsh (2002), the term «content and language integrated learning» (CLIL) refers to «any educational context that has the twofold goal of using a language other than the students' native language as a means of teaching and learning non-linguistic contents». However, it often replaces the notion of «content-based instruction», and we can therefore claim that the term is used to refer to both teaching of a second language by learning contents from other curricular areas, and the learning of a non-language discipline per se, such as mathematics or the sciences, using a second or foreign language as the vehicle of this learning.

If we bear in mind that one of the goals of the CLIL approach is to provide students with chances to study contents from a variety of perspectives (Marsh, 2002), we could argue that this approach tries to palliate the paradox that Mohan (1986) describes when stating that although a language is a system that relates what is said (the content) with the means used to say it (expression), content classes ignore the role of language as a means of learning, while language classes do not take the content they aim to convey into account.

According to Coyle (1999), CLIL approaches can be used in any classroom, that is, in any age bracket and at any level of competency in the foreign language if the contents are made accessible by fostering orality (the ability to express oneself orally) and reading comprehension. This means, according to the same author, that we must rethink the concept of language so that its learning is linked to its use and not just to theoretical knowledge. Therefore, learning a language means knowledge of a linguistic system (the grammar, vocabulary, syntactic structures and communicative functions of a given language) linked to the ability to reflect on the use of this code (the development of meta-cognitive skills) and the construction of knowledge based on the development of linguistic skills and general cognitive skills.

According to Jorba (1998), the acquisition of content in the curricular areas makes it possible to develop the cognitive-linguistic skills (describing, summarising, defining, explaining, justifying, arguing) that in turn develop cognitive skills.

In other studies (Jäppinen, 2005, 2006), the taxonomy used to analyse CLIL experiences in non-university education was the SOLO instrument (Structure of the Observed

Learning Outcomes) developed by Biggs and Collis (1982), which is used to describe the structure of a response and see the hierarchical progress in the structural complexity of several responses.

This global vision of language as an instrument for acquiring both linguistic and non-linguistic skills and knowledge is implicit, for example, in the definition of the use of a language found in the European Reference Framework (2001:17), and according to this use it alludes to those

«actions performed by people which... develop a series of general skills.. and communicative language skills in particular. People use the skills they have at their disposal in a variety of contexts and under different conditions and limitations, with the goal of performing linguistic activities ... (that) entail linguistic processes aimed at producing and/or understanding texts related to topics from specific fields, activating the most appropriate strategies to fulfil the tasks.».

The general skills listed in the Framework – which are interpreted in terms of declarative knowledge (knowing), skills (knowing how to do) and attitudes (knowing how to be) and learning capacities (knowing how to learn) – are common to any field of knowledge (including linguistic disciplines) and are therefore the ones that we wish to foster in a CLIL classroom.

3. Methodology

This study gathers the points of view of students and professors involved in the experience of participating in non-language courses in English, and it analyses some of their productions. In order to achieve these goals, four instruments were used:

1. A comparison of the written output of two groups of students from different degree programmes who have studied the same course with the same professor in English and Catalan. Using *Biggs & Collis' SOLO instrument* (1982), we analysed a sample of 18 texts written in groups of 3-4 students focusing on resolving cases studies in the field of school organisation (nine written in Catalan and nine in English, three texts per case study). The texts, chosen at random, corresponded to different groups in each case. From each case study, we chose three questions to analyse in detail: questions that require students to offer argumentative responses instead of descriptive or explanatory responses. The goal was to examine to what extent they were able to identify the relevant ideas, apply them in problematic situations and justify their decision coherently. Independently, two professors classified the responses according to the SOLO taxonomy. Their level of agreement was around 90%.
2. *A guideline for critical reading of scientific texts*, developed based on materials created in the LIEC group in the Department of Teaching Mathematics and Exper-

imental Sciences at the UAB. In this case, two texts produced by each student after one free and one critical reading process were examined, and we identified the profiles of the students in terms of the degree to which they had developed the skills of reading and writing critically. The texts resulting from the free and guided critical readings were analysed using a list of categories that include the most important aspects that characterise a critical position towards a text by readers. For each student, we compared the initial free text and the guided critical text to reveal the presence or absence of each of the categories.

In parallel, by developing a Catalan-English vocabulary list, we helped students to expand their vocabulary in the target language. This glossary contains terms and expressions from the world of education and helps students use English to give instructions, organise classroom communication and guide the learning in each of the courses mentioned above.

4. Results

The results presented below are related to the three different studies conducted in this project and the development of a list of Catalan-English education vocabulary:

Study in the courses on «Basic Issues in the Sciences» and «Mathematics I» to find out students' and professors' perceptions of the experience of taking and teaching a course in English.

The professors of this course were positive about the experience, although they believed that the CLIL approach means considerably more work and effort because of the fact of teaching the course in a non-native language and ensuring that the students follow it and acquire the main points and develop reflexive competences. This leads to a sense of additional unease because when the students come upon difficulties, it is more complex to identify whether they are due to the difficulty of the material or their level of language mastery.

According to the students' perceptions, the majority did not identify taking the course in English as an intrinsic difficulty, rather they found the contents of the course challenging. However, they admit that they had to get used to following the classes in English and including the specific technical vocabulary, and that at first this was more difficult. In some cases, they mentioned an added difficulty with oral and written expression, in particular with the evaluative tests. With regard to the usefulness of the experience, all the students deemed it positive to take courses in English, regardless of the effort this entails. CLIL helped them to improve their overall language skills, especially their specific vocabulary and their oral and written expression skills, the activities worked on the most in the classroom. In terms of their interest, the students did not find that doing the course in English affected their level of interest in the course either positively or negatively. Students seemed to also generally admit that there was little oral interaction amongst themselves in English.

Some of them, despite the fact that they liked the course in English, said that it clearly means more effort and more time, both inside and outside the classroom.

In general, we have been able to prove that the students' way of understanding improvements in their language skills is more reductionist and traditional than the view of the teachers, linked primarily to linguistic aspects (phonetics, grammar, etc.). This suggests changing some aspects of the structure of the questionnaire used in order to more accurately capture students' opinions, as well as using other tools for gathering this information (interviews, etc.). We also believe that it would be worthwhile to objectively evaluate students' language competency, perhaps via cooperation with other language courses in the degree programme.

4.1. Study in the course on «School Organisation» to examine the complexity of the responses by groups of students from two different degree programmes who have worked on the same case studies in English and Catalan

Despite the fact that the sample of studies analysed is relatively small and the results they offer us cannot be decisive, we do have proof suggesting that students' understanding of the contents was in no way limited by the fact that the classroom language was English in one of the groups. In fact, few student responses were categorised in any of the first three levels in the SOLO taxonomy, which is related to superficial and essentially descriptive responses. The majority of the responses show that the students understand the complexity of the situations presented, they are capable of reflecting on them – weighing the pros and cons of the different options – and they are able to take a final decision on the actions to be conducted.

The Catalan group showed a higher number of argumentative responses than the English group. The production of complex responses in a foreign language is a cognitively more laborious and linguistically more complex endeavour than doing it in one's native language. However, we can neither generalise nor conclude that the fact that one group did it slightly better than the other was for linguistic reasons. The case studies were examined by different groups in each degree programme; therefore, the results are difficult to compare. What is more, the instrument used to analyse the results does not explain why there are differences between the level of complexity of the responses produced and to what we can attribute these differences. It is clear that we need to have a tool that is capable of integrating an analysis of both the content and the linguistic complexity of students' responses without omitting the type and nature of the questions being answered.

The results particularly ended up revealing the effectiveness of the teaching-learning process. Despite this, we would have liked to have identified a higher number of argumentative responses, as they show a level of cognitive involvement and therefore offer proof of a deeper reflection and comprehension of the content. More emphasis must be placed on developing the students' cognitive-linguistic skills in the non-language courses as well (Jorba et al., 1998). This entails, among other things, that

when planning and presenting the materials to the students, the professors must explain the type of responses they expect in the exercises more explicitly, and especially that the responses must show reflexive thinking in the sense that they defend a position and are able to assess it by means of alternative options from the different critical perspectives.

4.2. Study of the course «Teaching the Sciences» to identify students' level of critical reading of scientific texts.

With regard to critical reading, the students show difficulties when reading texts in another language. They claim that reading in English prompts insecurity in that they are not totally sure whether they have caught the message that the text aims to convey and that it takes them much more time since they have to regularly look up the meaning of many words. This attitude is in part conditioned by the meaning that students assign to the activity of reading: they interpret it as a process of transmitting knowledge that must be acquired instead of viewing reading as a chance to question the world and the teaching profession as it is presented in the texts.

The results of comparing the two texts produced by each student enable us to state that the use of a simple teaching strategy like handing out guidelines for critically reading professional texts yields the following results:

1. It produces an overall improvement in students' critical reading skills. There was a considerable rise in the critical elements of the texts they produced after the initial free reading and the ones they produced after the guided critical reading. However, we need a more detailed analysis of each category to see whether this improvement in students' critical reading is general or only concentrates on certain specific aspects.
2. It considerably increase the students' critical reading skills in relation to aspects linked to anticipating before reading. In their texts, the students show the presence of references, of explaining their expectations as to the content of the text, both cognitively and emotionally, and of identifying and evaluating the formal aspects of the text.
3. It helps students to be more aware of their difficulties and therefore it empowers them to minimise them. However, where we see a lesser degree of improvement is in their ability to take the stance as learners and as professionals.

The majority of the students believe that reading is an activity aimed at extracting the main ideas that the text conveys, and therefore they spontaneously situate themselves as passive receivers. A lower number of students also shows in their free reading texts the ability to forge relations with other more personal domains as readers, and the ability to assess what the text states. Where we find a greater difference in the guided critical reading texts is in the presence of statements about the author and his or her position. While in the free reading texts no student saw the need to reflect on the author and their role in constructing the text, in the guided text this percentage rose to around 25%.

In short, offering students guidelines on how to critically read contributes to their understanding the most relevant aspects of the text (author's intentions and position, structure of the text, the student reader's relationship with the ideas espoused in the text), and it helps them to develop a critical posture towards an intentional vision of the professional world sketched by the author. We therefore see the need to develop other more interactive teaching strategies that foster the construction of more critical personal and professional positions as the result of the reading.

5. Conclusions

Teaching a course in English is a huge challenge for professors, yet also for the majority of students who reach the university with a foreign language competency level equivalent to a basic user (common reference level A2), and who are then asked to speak, write, read, interact and understand the contents of a course in English.

One of the problems seen in studies about CLIL is that few teachers who are not language specialists dare to teach in a foreign language. Written and oral expression are the aspects that primarily need the most improvement among teachers, as it is necessary according to our theoretical framework to offer and demand textual models of a variety of cognitive-linguistic skills (describe, explain, argue, justify) that students can work through systematically.

In general, some difficulties that the students and professors encountered when experimenting with the CLIL approach at the university are the lack of fluidity in students' interaction and oral expression, and the difficulty of written expression (such as lab reports). We should note that this is more common in the first year than in the third. Likewise, the advantages are related to an overall improvement in vocabulary, the consolidation of grammar or expressions, and a rising interest in the use of the language to ask questions, explain, justify or discuss newsworthy issues and subjects related to the course in English. Where there is also coincidence is in the fact that this learning is linked to an expansion of students' vocabulary.

Navés and Muñoz (1999) claim that major efforts are still needed to provide CLIL classrooms with useful materials for the professors and their students. In this sense, the professors who have contributed to this experience noticed that there is little teaching material and few resources to make the teacher's job of teaching language contents within their courses easier, which makes it difficult to apply a very solid methodology in the classroom from the theoretical standpoint. They all agree that the difficulty of finding Catalan-English vocabulary lists specific to the sciences, mathematics, computers or teaching the sciences contributed to making the job of building the lists more toilsome and time consuming.

Along the lines postulated by Muñoz (2002), the fact of having used a foreign language as the classroom language and as a means for learning the material in the courses has led the faculty to be more aware of the challenges that their students had to

overcome and, in consequence, it has stimulated their strategic behaviour to overcome these challenges. Likewise, they all supported teamwork and claimed that without the support of their colleagues in the experiment and the degree programme they would not have been able to rise to and overcome the challenges posed by teaching in English.

The results of the objective tests of students in CLIL settings, compared to those of students who took the same courses with the same professor in their own language, do not show significant differences. The professors' impression, confirmed by both the results of the evaluations of the projects in the course and the final exam, and confirmed by the analysis of the text productions of both groups of students, is that the same difficulties arose in both student groups, and that these difficulties are inherent to learning the contents of the discipline rather than being a result of the classroom language used.

In short, the students' and professors' visions converge in that the CLIL approach promotes a greater use of the foreign language, which serves to practice the language, and by practising it, the learning improves. For the majority of students, the CLIL approach was not a problem – not even for those with language problems – and they all noticed significant improvements in their level of mastery of the foreign language and were therefore able to overcome difficulties they encountered.

For all the professors that participated, this teaching innovation project meant facing some of the major challenges involved in university teaching in another language. This pathway is just now getting underway, and we must continue in this line of inquiry in order to get more significant results and control for variables such as student performance and levels of English in order to more clearly determine the impact of CLIL on the learning results.

References

- BIGGS, J. B. and COLLIS, K. F. (1982). *Evaluating the Quality of Learning - The SOLO Taxonomy*. New York: Academic Press.
- BULLOCK, A. (1975). A language for life. *Educational Report*.
- CABALLERO DE RODAS, B. and MASATS, D. (1999). «Les llengües estrangeres com a vehicle d'aprenentatges escolars». *Perspectiva Escolar*, 232, February 1999. Barcelona: Associació de Mestres Rosa Sensat. pp. 19-25.
- CASSANY, D. (2006). *Rere les línies*. Barcelona: Empúries.
- CODÓ, E.; MASATS, D.; FEIXAS, M.; ESPINET, M.; COUSO, D. (2007). «Analysing the Level of Complexity of University Students' Written Responses: A Comparison between First and Foreign Language Productions». In RUST, C. (2007) (Ed.): *Improving Student Learning Through Teaching*. Oxford: Oxford Brookes University. Pp. 158-170.
- COUSO, D.; FEIXAS, M.; MASATS, D.; ESPINET, M. *Treballant les competències lingüístiques dels futurs mestres de llengua estrangera en context: l'ensenyament de ciències*

- cies i matemàtiques en anglès*. Presented at the 3rd International Congress of University Teaching and Innovation. July.
- COYLE, D. (1999). *Against all odds: lessons from content and language integrated learning in English Secondary schools*. Policopiat.
- ESPINET, M.; CODÓ, E.; FEIXAS, M.; MASATS, D.; COUSO, D. (2007). *Llegir i escriure críticament en el context d'assignatures impartides en anglès s: el cas de la titulació de mestre especialitat llengua estrangera*. IDES Campus UAB Innovation workshops.
- EUROPEAN COMMISSION (2005). *Key Competences for Lifelong Learning –A European Reference*, 0221 (COD).
- FEIXAS, M. (2005). *La decisió d'impartir una assignatura troncal en anglès s: right or wrong?* 2nd Conference on Teaching Innovation. UAB.
- FEIXAS, M.; MASATS, D.; COUSO, D.; ESPINET, M.; CODÓ, E. (2006). *Millora de les competències en llengua anglesa dels estudiants de la titulació de mestre especialitat llengua estrangera mitjançant la impartició d'assignatures no-lingüístiques en anglès s: una experiència AICLE*. IDES Campus UAB Innovation workshops:
- JÄPPINEN, A-K. (2006). «CLIL and future learning». In Björklund, S. et al. (2006)(Eds.): *Exploring dual-focused education: integrating learning and content for individual and societal needs*. Vaasan Yliopiston Julkaisuja
- JÄPPINEN, A-K. (2005). «Thinking and content learning of mathematics and science as cognitional development in content and language integrated learning (CLIL): Teaching Through a Foreign Language in Finland». *Language and Education*. Vol.19, no. 2. pp. 147-168.
- JORBA, J. (1998). «La comunicació i les habilitats cognitivolingüístiques». In Jorba, J.; Gómez, I.; & Prat, A. (Eds.) *Parlar i escriure per aprendre. Ús de la llengua en situació d'ensenyament-aprenentatge des de les àrees curriculars*. Barcelona: ICE-UAB.
- Common European framework of reference for languages: learning, teaching, assessment*. (2001) <http://www6.gencat.net/llengcat/publicacions/marc/index.htm>. [Retrieved 3.3.2008]
- MASATS, D.; FEIXAS, M.; COUSO, D.; ESPINET, M. (2006). *La docència en anglès s en assignatures no-lingüístiques a la titulació de Mestre Especialitat Llengua Estrangera*. Presented at the 3rd International Congress of University Teaching and Innovation. Barcelona. July.
- MOHAN, B.A.(1986). *Language and content*. Reading, MA. Addison-Wesley.
- MUÑOZ, C. (1997). «Age, Exposure and Foreign Language Learning» in L. Bosch, C. Muñoz & C. Pérez *Second Language Acquisition: Early Childhood Perspectives*. APAC Monographs, 2: 16-22.
- PRAT, A., Márquez, C., Marbà, A. (2008). *Literacitat científica i lectura. Temps d'educació*.
- RAMOS, L. and ESPINET, M. (2007). *Narrativas experimentales en la formación de docentes de ciencias*. 4th Campus Conference on Teaching Innovation at the Universitat Autònoma de Barcelona.

- RAMOS, L. and ESPINET, M. (2007). *Relatos narrativos de las prácticas de laboratorio en la formación de docentes de ciencias*. 4th National Educational Research Congress. Yucatán, Mexico.
- RAMOS, L. and ESPINET, M. (2007). *Relatos narrativos y trabajo experiemntal en la formación de maestros de ciencias*. 4th Congress on Social Communication of Science, Scientific Culture and Democratic Citizenry.. Madrid, Spain.
- STEVENS, L.P. and BEAN, T.W. (2006). *Critical literacy: Context, research & practice in K-12 classrooms*. New York: Sage.
- VARIOUS AUTHORS. (1996). *CLIL in Catalonia, from theory to practice*. APAC: Anglès (Girona).

Keywords

Content and Language Integrated Learning, higher education, cognitive-linguistic skills.

Financing

Aid for financing projects to improve teaching quality (MQD) at Catalan universities. AGAUR (Identification number: 2005 MQD 00130).

Project leader

Mònica Feixas
Department of Applied Pedagogy
Faculty of Education
Universitat Autònoma de Barcelona
monica.feixas@uab.cat

Presentation of the project leader

Mònica Feixas is a professor in the area of Didactics and School Organisation in the Department of Applied Pedagogy. She holds a degree of Philosophy and Arts: Education from the UAB, and a Master's in Educational Administration from Columbia University Teacher's College. She also holds a PhD in Education from the UAB. Her main avenues of research are related to the professional development of university faculty, teaching culture at universities and the abandonment of university students and retention strategies, cultural change in organisations (CCUC research group) and organisational development in educational institutions (EDO research group).

Members of the project

Eva Codó

Department of English and German Languages and Literatures

Faculty of Philosophy and Arts

Universitat Autònoma de Barcelona

eva.codo@uab.cat

Digna Couso

Department of Teaching Mathematics and Experimental Sciences

Research Centre of Scientific and Mathematical Education (CRECIM)

Faculty of Education

Universitat Autònoma de Barcelona

digna.couso@uab.cat

Mariona Espinet

Department of Teaching Mathematics and Experimental Sciences

Faculty of Education

Universitat Autònoma de Barcelona

mariona.espinet@uab.cat

Dolors Masats

Department of Teaching Language, Literature and the Social Sciences

Faculty of Education

Universitat Autònoma de Barcelona

dolors.masats@uab.cat