

# CHALLENGES OF ADAPTING ENGLISH MEDIUM INSTRUCTION INTO THE SPANISH UNIVERSITY CURRICULA AND SOME NOVEL SOLUTIONS: TECHENGLISH

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## Abstract

The integration of the Spanish university system in the European Higher Education Area (EHEA) demands a series of concrete proposals. As we advance in the implementation of the process of Bologna, it is necessary to contemplate a new paradigm of teaching/learning. Central to this new paradigm is the adaptation of the curricula into the English language medium (EMI). Among many strategies for internationalization of the Universidad Politécnica de Madrid (UPM) under adoption, this university has funded a project TechEnglish intends to facilitate the conversion of subjects and eventually degree programs into the delivery in the English Language. This paper details a work in progress and describes the collaboration between content teachers and applied linguistics. The three collaborative actions are currently underway: observation of classes by applied linguists, seminar delivery on topics requested by the content teachers, and materials development with the help of teaching assistants. We are convinced that this collaboration is the necessary ingredient to promote teaching and learning through English at our university.

Keywords: internationalism, EMI, ICLHE, Technical English.

## 1 INTRODUCTION

An integral part of internationalization strategy in the implementation of English as a medium of instruction (EMI) into the various degree programs in Europe[1]. However, the level of English among the citizens of the European Union is tremendously varied, not only among the countries but within them as well. In some countries such as Luxemburg or Holland the percentage of citizens who can hold a conversation in English who can hold a conversation in English is almost 100% in others they hardly reach 30%. According to the European Language Commission 47% of the European citizens can speak English; that is one of the reasons why it is adopted as a 'lingua franca' in many situations, including education. [2]

The response of Spain to this European context is far from being homogenous and Spanish universities have only recently placed internationalization as a priority in their agenda. Part of the response to internationalism of the Universidad Politécnica de Madrid (UPM) is the implementation of English language Medium instruction degree programs. To aid instructors to adapt their courses into English, the project TechEnglish has been funded by the UPM. TechEnglish includes a series of actions briefly described in the next section. However this paper concentrates on the contributions of applied linguists to the project

## 2 BACKGROUND INFORMATION

Three initial actions centred the training program designed to offer content teachers instruction on teaching in English: first, personal coaching from language experts who would observe the content language teacher in the classroom. Based on the experts' conclusions, the students' evaluation and content colleagues' feedback, content teachers are advised about possible alternatives and tips to improve their teaching in the classroom. A funded pre project "Agro-English" carried out a needs analysis as well as viability study [3].

The second fundamental action is the selection and training of assistants as the project heavily relies on the participation of bilingual students at the UPM who will contribute to the formation of content

teachers in English. Among other training tasks, the assistant students will help content teachers with the translation or adaptation of materials to different formats, including the use of technologies; will help the observation phases with video recording or preparing the sessions, will carry out follow-up sessions to the training workshops program (see below) under surveillance of language teachers and will, generally and under direction of language teachers, attend to the learning/training requests of content teachers in the program as demanded.

Connected with the former, the third action consists on the programming and development of training workshops taught by the language experts that match the needs of content teachers with regard to their teaching in a foreign language. Pilot training workshops are currently being undertaken by the language experts. Both the personal observations carried out in the first semester as well as research [4] confirm that methodology is probably one of the main obstacles for the content teachers to teach in English. The courses are published through the forum in the virtual learning environment the group is using for internal communication, MOODLE. The registration in the different sessions is made autonomously by the content teachers through an editable page on the platform (wiki) where they can write down their names under the workshop title and the session selected from among two or three options. Most workshops are repeated twice or three times at different times in two days to favour the enrolment of content teachers.

In what follows, the development and outcomes of the different workshops as well as the challenges associated with the collaboration of teachers with teaching assistants and materials development are described.

### **3 CHALLENGE 1: THE NEED FOR COMPREHENSIVE INPUT-PRONUNCIATION**

The importance of pronunciation in English Medium Instruction (EMI) communication constitutes a controversial topic. However studies confirm that training exerts a positive effect on language proficiency, and that this effect is in correlation to the desire of the learner to acquire a native accent [6].

The four hours seminar was divided into two sessions, and consisted of the following three stages: (1) ear training (listening): the learner's ears should be finely trained in recognizing distinctions of speech sounds; (2) drills in the production of sounds (speaking); (3) brief and simple articulatory instructions as to how to correct errors. The content of the first session was vowels and the second session was consonants. In the first session a brief explanation of the difference between English and Spanish vowel systems, and the problems arising from these differences along with practice in listening and discrimination and production of isolated sounds. The second session included a brief explanation of the differences between English and Spanish consonant systems, and the problems arising from these differences; as well as practice in listening; discrimination and production of isolated sounds, word articulation, connected speech, emphasizing and intonation and, finally, practice of the rhythmic characteristics of English.

Finally, with respect to formal instruction, different studies confirm that training exerts a positive effect on the perception of English vowels and consonants, contributing to the acquisition of a native or a near-native pronunciation [6].

### **4 CHALLENGE 2: THE NEED FOR VARIED METHODOLOGY-MULTIMODALITY**

English Medium Teaching is not just a question of changing the language of the instructor. "If you change language of instruction, you have to change the methodology!" This was the main objective and underlying message of the workshop "So you want to teach in English, let's have a closer look". Although much more research needs to be done on the effect of English Medium Teaching, studies show among other results that students ask and answer fewer questions and students have difficulties taking notes. [7]. [8].

The 2 hour workshop was attended by 22 content language instructors. Mathematics, Computers, Animal science, economics among others was the content areas. The session opened with the question "Why do you want to teach in English? A brainstorming session ensued with a wide variety of reasons. One which I had not encountered in research was that the instructor wanted to teach in English in order to maintain his level of English communication.

The next part of the workshop was dedicated to looking at comments from research on English Medium instruction in Higher education. In groups of three, the participants received one research comment which was discussed within their group. Then, the members were progressively moved to another group and discussed a different research comment. Then the discussion was summarized in a whole group. This gave the participants a chance to work with fellow participants in a nonthreatening environment. The results were extremely lively discussions as the research comments were meant to provoke.

An example of the implementation of EMI at one university is given below

“This has led to a reaction from some academics as expressed in the following quote. I’m tired of the determination of know-it-all politicians to control the university sector and order us to act in a certain way. Therefore I say as the 18th century revolutionary Americans in the fight against The English tyrants don’t tread on me!” I and my colleagues can determine when we need to introduce English in our teaching and when we have to nurture the Danish cultural heritage. The intervention and micromanagement of politicians is slaughtering our universities. [9].

Some research comments pointed out the need for a variety of didactic approaches. After much discussion, some conclusions were reached and were stated in the following recommendations: the need to create opportunities for students to ask and answer questions and to set aside time at the end of the lecture for questions; allow the students to prepare beforehand the material to be presented by giving bibliography or lecture notes; the use of other forms apart from Frontal teacher presentation and PowerPoint such as recordings, videos and guest lectures.

## **5 CHALLENGE 3: THE NEED FOR DISCIPLINE LITERACY- APPROACHING KNOWLEDGE LEARNING FROM THE POINT OF VIEW OF LANGUAGE**

The purpose of this session was to raise awareness of the problems caused by language when you are communicating knowledge, problems related to domain knowledge and learners’ expectation as well as to present some features of language such as formal/informal style, homophones, polysemy and synonymy, a simple “joke” was used as an “icebreaker”. Also a short tale by the Argentinean author, Ana Naria Shua was presented to make evident the need for technical terms in order to be successful in a professional field.

Peer discussion followed with several questions on how teachers deal with problems of meaning when teaching in Spanish. This discussion then moved to lessons in English, especially considering that some of the students may only know general English and lack disciplinary literacy while others may have attended instruction in an English-speaking country. Several examples of words, terms and concepts causing misunderstanding were shown.

The aim of the session was to show that the process of transmitting knowledge to learners’ of a discipline in a language different from their own is not an easy one as comprehension is always affected by individual’s knowledge and expectations. To exemplify the difference between listening and understanding and Ogden and Richards’ triangle [10] was presented to signal the distinction between the *word* (sound waves) and its *meaning* (the concept) when reference to the *real world* comes through the human mind. This triangle leads to the idea that words can acquire different interpretations as they can become altered by the different types of knowledge each individual user has. However, in disciplinary communication, terms are specific and have a unique definition in that field of knowledge or domain.

To conclude, the difference in the way of interpreting concepts becomes even more evident when dealing with two languages, for example, “power” can be translated into Spanish by *energía*, *potencia*, *fuerza*, *poder*, *electricidad*, etc. Sometimes the key to understanding comes through a discipline different from one’s own.

## **6 CHALLENGE 4: THE NEED TO STRUCTURE THE LECTURES IN ENGLISH - DISCOURSE STRATEGIES**

The success of many lessons depends on good organization and on the students knowing exactly what they have to do. If the teachers have not a clear idea of what they are going to say beforehand, the result can be disastrous. This seminar aimed to (a) to help non-native-speaker teachers to become fluent and accurate in the use of specialized and idiomatic forms of the English used when teaching;

(b) to enable all teachers to use English effectively and imaginatively as a means of instruction and as a means of class organization; (c) to provide content university teachers with practice in effective use of classroom English.

The first Class talk workshop was held on 4<sup>th</sup> September at the beginning of the first semester. In order to assess it, evaluation questionnaires were distributed to the workshop participants and returned after the workshop. Overall, the event was assessed as informative, inspiring and thought-provoking and it offered a bit of space for the exchange of professional experiences. Many attendants expressed their satisfaction with the content of the workshop and their desire of having more opportunities to develop the knowledge and skills they need to address university students' learning challenges. Taking into account the audience's observations, the next workshop will be modified somehow in order to enable content teachers to rehearse rephrasing instructions and to provide them with further practice in the use of idiomatic forms used when teaching in English.

## **7 CHALLENGE 5: THE NEED FOR ADMINISTRATIVE AND LANGUAGE SUPPORT- ROUNDING UP THE TEACHING ASSISTANTS**

The administrative load of converting and adapting the content courses into English is considerable. Hence funding was provided by the UPM to hire teaching assistants. They are an essential part of the project since they are taking courses and can help but also give feed back to other students, other professors and even to administrative personnel. We announced nine scholarships for undergraduate and/or graduate students from December 2014 to July 2015 (1440 Euros for 200 hours of work). Candidates had to be registered in courses in one of the five schools participating in the project (Agrónomos, Aeronáuticos, Edificación, Arquitectura, Caminos), possess a high level of English (C1 level), be computer literate (especially web design, video editing and or statistics programs). Their main roles were to help professors and be a liaison between professors and language instructors when preparing new courses to be taught in English. More specific tasks include preparing materials (e.g., translating power point presentations), helping professors to improve their English (private or group classes), film trial classes, analyse the results of surveys/questionnaires, and produce a final report of their activities.

Candidates were required to submit a short CV, a letter of intent, and documents that certified their level of English and report card. All were interviewed individually and in English by two professors, one a content teacher and the other an applied linguist. They were asked about their English history (when they began learning English etc.), organizational skills (how they organize their time), specialization in other activities (including expertise in filming or film editing) and how they thought the UPM could raise its international status. This last question forced candidates to be a bit more creative and realize that the main end goal of the TechEnglish project is to raise the international profile of the UPM.

## **8 CHALLENGE 6: THE NEED TO DEVELOP MATERIALS IN ENGLISH-SIMPLICITY AND CONCISENESS**

In a meeting held between language and content teachers about the suitable materials to be created for the TechEnglish project the first questions raised by content teachers was why first-year students were interested in having their course taught through English. This was a particular matter of concern for some groups where all the students were native speakers of Spanish and therefore shared the teacher's mother tongue. The intercultural factor could not possibly be the motivation in those groups, so would the teaching of specialised disciplines in English still be worthwhile and useful in those cases? Starting with a survey to know the students' motivation and levels of language was the first step to be taken before material development was addressed.

About the teachers' motivation, Peeter Mehisto's definition of Content and Language Integrated Learning (CLIL) helps to clarify the extent of involvement with the foreign language: [12] "CLIL is a dual-focused teaching and learning approach in which the L1 (first language) and an additional language or two are used for promoting both content mastery and language acquisition to pre-defined levels." In short, the advantages of teaching in English can be thought of as promoting cognitive skills, knowledge, and language acquisition to suitable levels. In fact, the teacher committed with the instruction in a second language must be a careful planner so as to promote the use of language (*language acquisition*) to the extent needed for interacting with their students. Through such practice the students acquire the levels of academic achievement, language competence, and social and cognitive skills required to adapt to the changing world. [12]

Second, the teachers must understand that teaching in English is a technique that develops hidden competencies that the students may not have fully displayed in their native language. This is why teaching through another language requires a great deal of planning so as to determine the levels of competence expected in each of the layers (social, language, content) concerned when teaching.

It can be concluded that effective materials will not only be responsible for transmitting clear information, but they will also contribute to achieve social interaction among the students, helping thus to create an environment of understanding where students feel confident to ask for help and solve problems together as most of them will find the foreign language as an additional difficulty.

## 9 CONCLUDING REMARKS

In this paper, we have tried to detail the challenges that can be encountered when a university is moving towards internationalization. In order to raise the international profile of the UPM this university as well as many other European universities have adopted the implementation of English as a medium of instruction (EMI) into the various degree programs. This endeavour has entailed a series of challenges as enumerated above: the need for professors to improve their pronunciation in order to be comprehensible to the students; the need for multimodality in the lectures as well as varied didactic approaches; the need to monitor literacy of the discipline to ensure students are understanding; the need to have a clear structure as well as clear aims throughout the course; and finally the need for outside support to develop and deliver interesting course material and ensure the completion of the learning outcomes and competencies. Although we have focused mainly on the contributions of the applied linguists to the project the collaboration between content teachers and linguistics is constantly deepening. We are convinced that this collaboration is the necessary ingredient to promote teaching and learning through English at our university.

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