Monitoring EMI Teachers to Assess their Progress in University Bilingual Programs

Francisco Rubio-Cuenca & María Dolores Perea-Barberá

Authors:
Francisco Rubio-Cuenca
Universidad de Cádiz, Spain
paco.rubio@uca.es
https://orcid.org/0000-0001-9780-6059

María Dolores Perea-Barberá
Universidad de Cádiz, Spain
lola.perea@uca.es
https://orcid.org/0000-0001-9523-2805

Abstract:

The implementation of a bilingual teaching program requires a series of actions concerning methodological training and language support for both teachers and students. The Bilingual Education Program at Escuela Superior de Ingeniería (School of Engineering, University of Cádiz, Spain) was approved by the Board of the School in 2014 with the aim of developing English-Spanish CLIL-based bilingual curricula for the various Bachelor degrees offered. Amongst the measures taken to implement the program, teacher training has been a priority, with monitoring being an essential part. Monitoring sessions have now been carried out for more than six academic years and have a double objective: gathering the teachers' perceptions and beliefs regarding their role as EMI teachers and providing them with feedback as to their practice through class observation in order to fine-tune future language development and methodology programs. The goal of this paper is to show that monitoring sessions may serve as a valid tool for assessing the impact of in-service training on bilingual teaching. The results show that teachers have experienced remarkable progress by incorporating language awareness into their practice as EMI teachers, thus contributing to improve the language level of both their students and themselves, and by applying specific didactic strategies to make the learning process more dynamic, participatory, stimulating and creative.

Keywords: EMI; CLIL; bilingual teaching; monitoring; language awareness

1. Introduction

Teacher training and education has been a difficult issue since the introduction of internationalization policies in higher education institutions all over the world due to English gaining a prominent role as a vehicular language. In the European context, many state-run CLIL-based bilingual teaching programs have been launched at primary and secondary levels (Alonso et al. 2008; Czura et al. 2009; Lorenzo et al. 2009; Cabezas Cabello 2010; Fernández and Halbach 2011; Durán-Martínez and Beltrán-Llavador 2016; Pérez Cañado 2016) that provide an institutional framework in which the different stakeholders contribute to creating a favourable context for teachers and students, especially with respect to collaboration between foreign language- and content teachers (Contero 2018). Within the Andalusian Autonomous Community in Spain, the Educational Authorities launched the Andalusian Plan for the Promotion of Plurilingualism (Lorenzo et al. 2009; Cabezas Cabello 2010; Pavón 2010; Pérez-Cañado 2016) in 2005 with the aim of providing primary and secondary schools with the necessary institutional support to implement bilingual and plurilingual programs. In contrast, with little institutional support (Ramos-García 2013; Julián-de-Vega and Ávila-López 2018; Ramos-García and Pavón 2018), a number of universities in Spain have been timidly implementing bilingual and plurilingual programs based mainly on offering teaching staff language courses and bilingual methodology workshops adapted to each particular context in a similar fashion to non-tertiary education bilingual programs. At the University of Cádiz (UCA), Andalusia, Spain, three Faculties have been implementing their own bilingual teaching programs over the last decade: The Faculty of Education, the Faculty of Economics and Business Administration, and the School of Engineering (Rubio-Cuenca 2019). Needless to say, the implementation of these bilingual teaching programs is being carried out by taking a series of actions related to methodological training and language support for both teachers and students.

The Board of the School of Engineering approved The Bilingual Education Program (BEP) in 2014 with the aim of developing English-Spanish bilingual curricula for the various Bachelor degrees offered. The BEP envisaged different bilingual teaching modalities that followed the recommendations on key competences of the European Commission for Education (Fox et al. 2017; European Union 2018; European Union 2019) together with the guidelines for the implementation of the Andalusian Plurilingual Plan.

Amongst the measures taken to implement the program, teacher training has been a priority, with monitoring -a series of actions designed to track and support EMI teaching practice- being an essential part. Monitoring sessions have been

designed with a double objective: gathering teachers' perceptions and beliefs regarding their role as CLIL-based EMI teachers and providing feedback as to their practice in order to fine-tune future language development- and methodology teacher training programs. EMI teachers' beliefs regarding their practice in higher education institutions has been the focus of considerable research in the last decade, with results highlighting aspects such as teachers feeling that content should be prioritised over language (Airey 2012), the need for scaffolding both teachers' and students' language level proficiency—enhancing oral communication skills—, an emphasis on teaching key vocabulary, the management of academic discourse, and the collaboration between content and language teachers (Pavón and Rubio 2010; Pérez-Cañado 2014; Aguilar 2017; Sánchez-Pérez and Salaberri 2017; Rubio-Cuenca and Moore 2018; Contero 2020; Doiz et al. 2020; Llinares and Mendikoetxea 2020; Rubio-Alcalá and Mallorquín 2020). All of these, and certain other relevant issues, have been taken into account in the different studies to draw the appropriate profile of university EMI practitioners, by exploring their needs and proposing specific pedagogical and language competences in order to design and frame quality teacher training and development programs. The goal of this paper is to show that monitoring sessions can serve as a catalyst to assessing the impact of teachers' training to equip them for the bilingual classroom. The results show that teachers have made remarkable progress in their training as EMI practitioners through incorporating language awareness into their practice, thus contributing to improving both their and their students' language level and by applying specific teaching-learning strategies to make the learning process more dynamic, participatory, stimulating and creative.

2. Context of the Study, Methodology and Participants

2.2. *The Context*

The context of this experience is the Bilingual Education Programme (BEP) (Rubio-Cuenca and Domínguez 2016) at the School of Engineering (UCA), initiated in 2012 with the general aim of improving language skills of students working in Spanish and English. Following the general guidelines of the UCA's *Documento de Politica Lingüística* (Language Policy Document) published in the *Boletín Oficial de la Universidad de Cádiz* (BOUCA) in 2014, and from experience gained at the School of Education, the School of Engineering approved the *Líneas Directrices del Programa de Enseñanza Bi/Plurilingüe* (Guidelines for Structuring a Bilingual/Pluringual Education Programme) (Rubio-Cuenca 2014).

In 2018, the UCA issued the *Plan de Impulso de la Oferta Académica en Lenguas Extranjeras de la Universidad de Cádiz* (Program for the Support

of Foreign Language Lecturing at the University of Cádiz), (2018-2022) (henceforth, PIOLE) (BOUCA, 2018) with the aim of providing support and recognition in the form of a reduction in the teaching workload to teaching staff who offered their courses in a foreign language. Moreover, the PIOLE provided support for students through the provision of conversation sessions with language assistants. As coordinators of the Bilingual Education Program at the School of Engineering, we soon realized that the so-called *Impulso* ('boost') was addressed not only to staff teaching non-linguistic courses through a foreign language, but also to foreign language teachers, with no clear 'boost' to bilingual teaching programs.

By the time the PIOLE was issued, the School of Engineering had been providing this kind of support for teachers for more than six academic years. In addition, engineering students started receiving conversation practice in 2015-16 through the support of Erasmus placement students. The PIOLE did not therefore add anything new to our program, apart from offering internships for language assistants. In contrast, the PIOLE triggered a race for participation from teaching staff and departments who until that moment had not been involved in bilingual teaching at all, just for the sake of gaining specific recognition of their teaching by the institution, which would grant them a reduction in their workload, as stated in the PIOLE. So those Faculties and Schools that had been implementing their own bilingual programs until that moment had to start competing for support from the institution with the new comers to the new arena, with the contradictory results that many of the EMI teachers at the School of Engineering could not gain and still have not gained institutional recognition. In spite of the lack of institutional recognition, the BEP has been offering both academic English courses—provided by the Centre of Languages—and teaching methodology workshops led by outstanding CLIL experts for eight academic years to date. In parallel to such courses and workshops, we have been carrying out a monitoring plan with the main aim of tracking the implementation and development of the teaching activity of the BEP.

After years of planning and preparation through the BEP with specific courses taught through English, in 2019-20 we offered the English-Spanish Bilingual Degree in Computer Science as a pilot experience, the first engineering bilingual degree at the UCA (Rubio-Cuenca 2019). With this important milestone, the coordinating team of the BEP together with the Board of the School of Engineering consider that the BEP is contributing to further the internationalization of the School and the UCA by increasing the international mobility of both outgoing and incoming students and teachers; by providing language learning continuity for new students, who increasingly come from bilingual secondary schools and, not least, in terms of the general requirement

for students to achieve a minimum level of English (accredited by the CEFR) in order to graduate (Rubio-Cuenca and Moore 2018).

2.2. *Methodology*

As already mentioned, monitoring the teaching activity of our EMI teachers has been a mainstay in the development of the BEP for six academic years. The main goal of this study was to track the impact of the actions taken in the different phases of the implementation of the BEP and the adaptation of teaching practices to the new teaching paradigm. The monitoring carried out involved actions on behalf of all the different stakeholders in the program: regular meetings with mentors (Rubio-Cuenca 2014, Rubio-Cuenca and Domínguez 2016, Rubio-Cuenca 2019) and individual teachers, annual reports based on the teachers' dossiers (folders with documents and information based on their teaching practice), student surveys, teacher interviews led by language assistants, presentations or simulations, and class observation.

Monitoring consists of two sessions. In the first session (hereafter, MS1), teachers are interviewed by one of the language assistants. Together with a language biography questionnaire administered previously, the interview collected objective data regarding the specific context of their teaching. The main body of the interview prompted teachers to express their opinions concerning the pros and cons of their practice as EMI teachers, the attitude and motivation of their students with regard to the fact of being taught through English, strategies and activities, scaffolding and assessment. The second session (hereafter, MS2) consists of either a lesson plan and/or a classroom observation session.

As mentioned above, the first monitoring session consists of an individual interview with the language assistant and it is divided into two parts. The aim of the first part of the interview was to gather quantitative information about the participation of the teacher in the program: names and numbers of courses taught, percentage of the course(s) taught in English, language(s) used for oral communication, shared course planning and level of English. The second part of the interview consisted of up to fifteen questions regarding their practice as CLIL-based EMI teachers. For organizational purposes, we have divided the contents of this part of the interview into four thematic blocks: General impression of teaching practice, students, activities, and tracking of the teaching-learning process. Additionally, participants were asked to summarize their experience and expectations as regards implementing their courses in English in the future. In this paper, we are only able to present the results of the first monitoring session due to limitations of space.

Monitoring sessions have been carried out in five academic years between 2014-15 and 2019-20, excluding 2017-18 due to unexpected issues external to our program. This study has been designed as a mixed methods research by which we combine qualitative and quantitative data in order to minimize the weaknesses and to maximize the strengths of the study. As for validation, we have used part of the results of a study on teachers' attitudes to language and bilingual learning based on a survey and on a follow-up discussion with some of our participants conducted, respectively, in 2015 and 2017 (Rubio-Cuenca and Moore 2018).

2.3. *The participants*

Up to eighty teachers have joined our program since 2012. As participation has always been on a voluntary basis, we have been advising teachers to join the BEP at their own pace, taking into account their command of English, the extra time required for planning activities and adapting teaching materials, which part of the course they are implementing in English, etc. In general terms, the actions undertaken in our program include teacher training courses and workshops, work seminars, meetings with mentoring teachers, meeting with coordinators of the programs, monitoring and lesson implementation. As for monitoring, thirty-eight teachers have taken part in five academic years, as shown in Table 1 below.

As explained above, in 2017-18 we could not do any MS1 interviews, just three class observation sessions but with fragmentary information. As for the period 2018-20, it gathers the data for two academic years partly due to the fact that we devoted the autumn term of 2019-20 to MS2 and partly to the fact that all on-site academic activities were interrupted by mid-March 2020 due to the pandemic lockdown in Spain. Therefore, for MS1 we will only be considering the 2018-19 academic year, as the data gathered from the interviews belong to this academic year. Therefore, the results for MS1 and MS2 should be valid for this two-year period.

TABLE 1. Participants in MS per academic year

Academic Year	MS1	MS2
2014-15	17	0
2015-16	10	11
2016-17	18	6
2017-18	0	3
2018-19	17	5
2019-20	0	4

The School of Engineering currently offers ten Bachelor's Degree programs, including three Double Degrees and six Master's Degree programs. Most of the participants in the BEP are Computer Engineering teachers and have been involved in the BEP since its inception, their average level of English is B2+ and they have participated over several years in various in-service CLIL-oriented teacher training programs. This is the main reason why in 2016-17 our School of Engineering was equipped to start offering two bilingual English-Spanish specialized modules in both the 3rd and 4th year of the Degree in Computer Engineering. As initially planned (Rubio-Cuenca 2014), the Bilingual Technologies modules would act as a pilot to inform planning for the implementation of the full bilingual curriculum of the Degree in Computer Science, which was finally offered in 2019-20. Moreover, in 2017-18 we started a Master's Degree in Computer Security with three of the modules offered completely in English. As a result, twenty-one (55.2%) participants in the monitoring sessions belong to the Computer Science Department. The remaining seventeen participants belong to a variety of areas and university departments, such as Aerospace Engineering, Mechanical, Electronics and Electricity, and Design Engineering.

3. Results and Discussion

In this section, we will be making an analysis of the quantitative and qualitative results of our study based on the first monitoring session. As stated above, we will be contrasting our results with our 2018 study (Rubio-Cuenca and Moore 2018) where participants were invited to give their opinions on language learning and bilingual teaching and learning. All twenty-six participants in that study were also involved in the present study.

3.1. Monitoring Session 1 (MS1). Quantitative Analysis

In this section, we analyse quantitative data regarding the participants' degree of involvement with the bilingual program: number of courses implemented in English, number of sessions in English, the use of English for oral communication, sharing the teaching of subjects with other colleagues, and collaborative planning (Table 2, Figure 1). We also show the participants' CEFR level of English (Table 3, Figure 2) at the time of the interviews.

TABLE 2. Results of interview with BEP teachers

	Number of participants per academic year				Cumulative
Participants' Involvement	2014-15	2015-16	2016-17	2018-20[1]	2014-20
Participants interviewed	17	10	18	17	62[2]
Courses in English	16	12	24	21	73
Sessions in English (%)	23.1	33.4	18.9	33.7	27.3
English for oral communication used by the participant/teacher	5	7	12.5	7.5	32
Sharing subjects	0	8	8	12	28
Activities of course partners in English when sharing subjects	0	4	4	6	14
Collaborative course/ lesson planning	0	6	5	8	19

The furthest column on the right in Table 2 shows the overall results for the whole six-year period. The results for the sessions in English are not summative but in percentage terms. In cases where a teacher taught more than one course in English, this percentage is the result of the average percentage of all the courses taught by that teacher. Due to lack of space in this paper, the results for each individual participant are not shown. The item in the questionnaire "English for oral communication" had three options: "English/Spanish/English-Spanish" and a high percentage of teachers responded that they alternated English with Spanish, e.g., in 2018-20 nine (52.9%) participants alternating between languages (data not shown). Perhaps surprisingly, in previous academic years there were fewer participants alternating English with Spanish (only overall results are provided here, see Table 2). However, it is true that the number of those implementing their activities fully in English was lower than those alternating English and Spanish across the 2014-2020 period, except for the year 2016-17 when ten participants (55.5%) used only English to impart their course, five alternated between English and Spanish, and only three used Spanish as the only language for oral communication (data not shown). This

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1   As expressed above, the MS1 results belong to the 2018-19 period as no interviews were carried out in 2019-2020, partly because all on-site academic activities were interrupted in March 2020 due to the pandemic lockdown in Spain.
2   This is not the real number of participants as about half of the respondents repeated the interview in different academic years. The total number of participants is thirty-eight across the 2014-2020 period, as specified above.

increase in English as the only language for oral communication may have been caused by the introduction of the Bilingual Technologies module in that year.

FIGURE 1. Participants' involvement in BEP
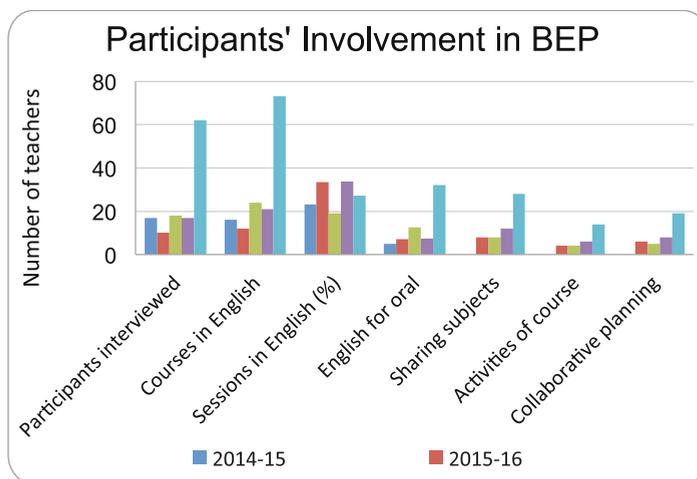
On the other hand, in the 2018-20 period there was a reduction in the number of teachers preferring to give English-only lessons even though most of the participants were the same as in the previous academic year. The reason for this reduction may be that most of the interviews were conducted in 2018, following our two-year study on teachers' attitudes. By then, most of the teachers were becoming more language-aware and were, therefore, more inclined to use Spanish not as a recourse (Doiz and Lasagabaster 2017; Storch and Wigglesworth 2003) but as a resource (i.e., explicitly focusing on both languages) (Rubio-Cuenca and Moore 2018:98-99). This is supported by the considerable increase in the percentage of sessions (33.7%) and number of courses (21) implemented in English as compared to previous years (see Figure 1). For example, in 2015-16 participants offered only twelve courses in English, nearly half what was offered in the 2018-20 period. The table and the bar graph also illustrate an exponential increase in the number of teachers involved in collaborative planning and sharing teaching of courses with colleagues. Unfortunately, we do not have this data for 2014-15, as in that academic year the interviews were more informal and sharing and collaboration with other teachers had not entered the equation yet.

Regarding the participants' command of English (see Table 3 and Figure 2 below), as already reflected in our 2018 study (Rubio-Cuenca and Moore 2108: 92-93), there was considerable heterogeneity. Across the whole 2014-20 period

there was a spread of levels from B1 to C1 in 2016-17 and 2018-20, and from B1+ to C1 in the two earlier years. We should point out the fact that the study was done on a voluntary basis and part of the teaching staff participating in the BEP were not monitored even though some declared they had a B2+ or higher level in English in their language biographies. It is also true that some of the participants with a B2+ or C1 level who did the interview in 2014-15 declined to do it again in successive years, maybe because they felt more confident with their level of English than the rest of participants. The year with the lowest participation was 2015-16—only ten. That may be the reason why we had no C1 or higher-level participants and the B2 (+) participants decreased by half.

TABLE 3. English levels of participants

ENGLISH LEVEL	2014-15	2015-16	2016-17	2018-20	2014-20
English A2	0	2	0	0	2
English B1	0	0	6	7	13
English B1+	5	4	7	1	17
English B2	4	2	1	4	11
English B2+	4	2	3	3	12
English C1	4	0	1	2	7

FIGURE 2. English levels of participants
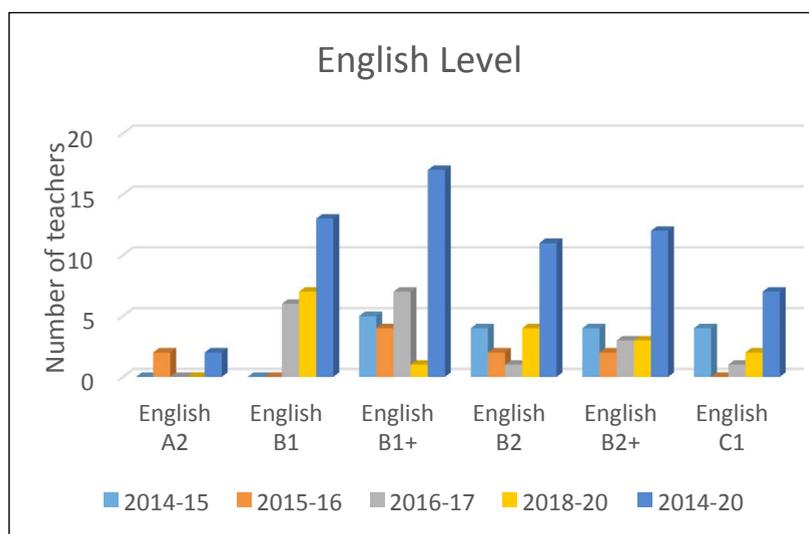
3.2. Monitoring Session 1 (MS1). Qualitative Analysis

The main body of the interview was a qualitative analysis to check the development of the teaching practice of participants as EMI teachers. We divided the interview into the following thematic blocks:

- General impression of teaching practice: strong vs weak points.
- Students: main goal, learning through English, motivation, oral interaction.
- Activities: types of activities, successful activities, activity planning and implementation.
- Tracking the teaching-learning process: scaffolding, feedback, assessment.

In the following sections, we will be analyzing participants' responses to the questions in each block.

3.2.1. General impression of teaching practice: Strong vs weak points

The aim of this thematic block was twofold. On the one hand, we wanted to know what participants enjoyed most in their teaching practice (i.e., strong points). On the other, we asked them to state the drawbacks or weak points of their practice, regardless of whether these were influenced by internal factors (i.e., being outside their comfort zone, their insecurities regarding their level of English, etc.) or external factors (i.e., the attitude of students and their level of English, the presence of international students, collaboration with other teachers, the support of the institution, etc.).

Regarding the strong points and what they most enjoyed as EMI practitioners, in 2014-15—the first time we did the interviews– seven participants (41% of total participants) highlighted the positive attitude of students towards the new way of perceiving their learning. However, only five (29.4%) said they were using English as the language of oral communication in their lessons (see Table 2). In 2015-16, eight participants (80%) expressed their satisfaction with their practice, and there was a significant increase in the percentage of those using English for oral communication in their lessons (33.4%) as compared to the previous academic year (29.4%). In this round of interviews, most participants expressed their satisfaction with the new approach and the positive changes experienced in their teaching practice, and this time they focused on their training to become EMI practitioners: "The CLIL method is very attractive for me. I can make my classes more dynamic and my students more involved. CLIL method gives me an opportunity to enrich my classes." (T9, 2015-16).

In 2016-17 only five participants (27.7%) expressed their satisfaction with their teaching practice, again focusing on their training. This may be explained by the fact that quite a few teachers joined the BEP for the first time in this academic year, most from a variety of engineering and scientific areas and having no practical experience with the new methodological approach.

Finally, in 2018-20 most participants had been in the program for up to six academic years and half of them expressed their general satisfaction, returning to focus on the students' positive attitudes and the way they felt their students were improving their English while completely following the contents of the lesson: "The best thing about CLIL teaching is that the students can improve their English as they learn the contents of the subject. I have realised that the students' attitudes improve in the learning process and after noticing how much they have learned by the end of the course" (T5, 2018-20).

All in all, twenty-nine participants (46.7%) in the whole period under analysis talked about the strong or positive points of their teaching practice, while forty-three (69.3%) focused on the drawbacks or weak points of their experience rather than on the positive ones. The uncertainties and insecurities of teachers involved in bilingual teaching programs have been explored at length in recent research (Pavón and Rubio 2010; Doiz et al. 2011; Johnson 2012; Rubio-Cuenca 2012; Contero 2020; Doiz et al.2020). For example, in the study conducted by Doiz et al. (2020: 157-158) at two Spanish universities, most participants stated that teaching in a foreign language reduced the range of the vocabulary they used significantly, thus conditioning the degree of detail given in their explanations. They also found the pronunciation of technical vocabulary particularly challenging and felt that their communication skills were reduced. The ability to improvise and express themselves spontaneously was also negatively affected. Most of these studies propose plans for improvement, for changing teacher's beliefs and their image of themselves as a teaching practitioner in order to mitigate their insecurities when confronted with planning and teaching through a foreign language.

In 2014-15, the students' low level of English, particularly on some industrial engineering degrees (T4, T24), their lack of interest in learning through English, their lack of specific vocabulary, together with their lack of effort and motivation stood out as the main drawbacks for participants. Very cognitively demanding content makes subject matter hard for students even in their mother tongue.

As for their perceived level of English, the main drawback was with oral communication, speaking and understanding in English. Some teachers complained that they did not notice any progress in the students' level because of the reduced number of activities they used and the lack of time and continuity of the sessions in English (T9, T33). Moreover, some of the teachers felt very

insecure with their oral English. Coping with lessons with large numbers of the students was another issue as it was hard for them to control small groups, and because of the disparity in the language level of their students, also mentioned in 2015-16 (T26, T27).

In 2016-17 the main drawbacks revolved around the insecurities of teachers with their own level of English, maybe because after a few years in the program, they are more language-aware and can detect their own strengths and weaknesses more easily. That is why some of them kept postponing the use of English for oral communication in the class or even refused to start implementing activities in English. Another drawback related to the students' insecurities about or even rejection of speaking in English: "I try to speak in English while discussing some concept. Nevertheless, some of the students were not content with that situation and complained about it" (T17, 2016-17). Finally, one of the participants expressed his concern about the difficulty they had "to create an environment in which both students and teacher would feel comfortable. (T16, 2016-17).

In the period 2018-20 we had seventeen participants who showed themselves to be really involved in the program and their opinions were more based on their practice as EMI teachers than in previous years. Moreover, some framed their comments with key concepts normally used by language specialists. They based their complaints on the extra time they needed to prepare and implement the activities, as students struggled a lot with understanding complex concepts, which made lessons advance at a slower pace than if they were in Spanish. However, the percentage of sessions implemented in English (33.7%) was significantly higher compared with previous years. Again, some of the participants described their insecurities with their own level of English and the lack of institutional recognition of them as bilingual teachers. In this same line, Contero (2020: 260-261) analysed the reasons for teachers' refusal to participate in a bilingual teaching program, and found them to include the extra time and effort for lesson planning, the slow pace of lessons, the lack of response or commitment of the students and the need for institutional support.

3.2.2. Students: Main goal, learning through English, motivation, oral interaction.

CLIL-based English-Medium Instruction requires a pedagogical shift from a lecturer-centred to a student-centred methodology. The general goal of any bilingual teaching program regarding students should be improving their command of the vehicular foreign language both conversationally (i.e., Basic Interpersonal Communication Skills or BICS, Cummins 2008) and academically (i.e., Cognitive Academic Language Proficiency or CALP, Cummins 2008) in

order to harness their potential as prospective engineers, mathematicians, architects, etc. Internationalization seems to be the general driver of 21st century higher education institutions, with students at the epicentre of this pedagogical revolution. In this line, we wanted our participants to tell us how they felt they could motivate their students to enhance oral interaction, and to make them aware of the relevance of communicating in English using the vocabulary of the different academic disciplines.

First, we asked participants whether they had a main goal for their lessons. In 2015-16, nine participants (90%) admitted that improving oral interaction and communication was their main goal for their students as EMI teachers, but highlighted the importance of reading specialized papers and enriching their vocabulary.

In 2016-17 only three participants (16.6%) gave a detailed description of their goals concerning students, focusing on both the improvement of the students' English—i.e., the acquisition of specific vocabulary—and understanding the subject matter at a reasonable pace, with the priority being the latter.

> My main goal while teaching in English remains the same as in the case of teaching in Spanish. I want my students to understand the content of the subject. To learn, to study the content. However, I also want my students to interact with me and between them [sic] in English. It is important to make students participate no matter the level of English they have. They should try to get better and better (T3, 2016-17).

In 2018-20, six participants (35.2%) pinpointed content acquisition and key vocabulary as their main goal. Moreover, after at least four years in the BEP, the teachers interviewed also tried to frame their goal within the larger academic and professional context: "The main goal for me as a CLIL teacher is that my students should learn to read academic articles in English and that the use of English would become a natural part of the subject and a completely normal element in the students' lives. The world of engineering demands the daily use of English" (T16, 2018-20).

Another question was how they considered students could learn better through English. In 2014-15, six participants focused on the need for improvements in students' language skills. Five of them acknowledged that they dedicated more time to listening and speaking than the other skills, though reading and writing were also taken into account.

In 2015-16, all the participants recognised the importance of English for their students and how they tried hard to make students aware of this fact. They also agreed that the CLIL approach provided them with the necessary tools to

give their students support and scaffolding throughout their learning process, and that alternating between English and Spanish should be a natural way of communicating in the bilingual class (T3, 2015-16). In 2016-17, one participant expressed his concern with improving his students' reading and writing skills, while also recognising that oral interaction was essential (T7, 2016-17).

Finally, in the period 2018-20, three participants commented on the importance of English for their students' career prospects, their motivation for learning through an international language and the fact that having international (i.e., Erasmus) students in their classes with hardly any knowledge of Spanish encouraged them to include more activities in English and use English more frequently for oral communication (T14, T19, T30).

Encouraging oral interaction between students and the teacher and between students themselves both during and outside of lessons was another topic of the interview. Most participants agreed that they did their best to encourage oral communication in and outside the classroom, except in 2014-15 when very few participants were actually doing activities in English, and Spanish was frequently used as the language of oral communication in the class.

Discussion and debate in small groups was a strategy that participants had started to use in 2018-20. All in all, once they gained some experience and got more confident about their training as CLIL teachers, participants reported they were trying to find new strategies and techniques for encouraging oral interaction in the class. For example, telling the students that communication is not a matter of correction (T8, 2016-17).

Motivating students has been one of the key factors in support of the implementation of bilingual teaching programs as opposed to traditional EFL courses (Lasagabaster 2011; Doiz et al. 2014; Turhan and Kirgöz 2018). In our monitoring session, participants had to talk about techniques and strategies (Dörnyei 2001) they used or would like to use in their lessons to motivate their students to learn through English. They used strategies such as grading activities, games, videos, mixing different types of activities and telling students about their professional experience with English. Job-hunting by collaboratively building their CVs, attending talks by international experts, real-life simulations and using humour are other ways of motivating students that were mentioned: "I compare the School of Engineering with a company. I know that to motivate my students (i.e., the workers) I need to motivate them continually" (T20).

All these opinions come to reinforce the teachers' 2018 position as language facilitators (Rubio-Cuenca 2018: 94). They all agreed that they should scaffold their students' subject specific discourse in the foreign language, basically focusing on the acquisition of technical vocabulary but also helping them with oral communication. The teachers' perceptions were obviously influenced by

their training in bilingual teaching methodology. However, we must admit that some teachers are implementing their courses fully in English with no CLIL-based training and providing no language scaffolding to their students. In spite of that, they argue that they are succeeding in their teaching without paying any particular attention to language issues. In line with this, Aguilar (2017: 7-9) found that most of the engineering teachers participating in her study gave a clear preference to content over language, they were more for conventional EMI than CLIL-based EMI strictly speaking as they refused to give corrective feedback on language issues or assess their students' English, mostly because they themselves felt insecure about their proficiency in the foreign language. Some agreed that paying specially attention to key technical vocabulary placed their focus halfway between CLIL and EMI.

3.2.3. Activities: types of activities, successful activities, planning and implementation

In the academic year 2014-15 all the participants gave a detailed description of the different activities they used to make lessons more dynamic, with different ways of grouping students (individual, pairs, small groups). However, in the following years participants tended to provide very general statements and rather than describing specific activities they talked about the types of activities in very general terms: pair work, group work, active learning, peer feedback, cooperative work, listening, reading writing activities, projects, etc. One of the participants in 2018-20 declared that, though not consciously, she planned her activities using CLIL teaching techniques (T20, 2018-20).

Table 4 provides data on the number and variety of activities the participants reported to have been implementing in their lessons.

From the data in Table 4, looking at whole 2014-20 period it is clear that presentations—by both teachers (N=14) and students (N=16)— along with video-based activities (N=15) and direct questions (N=13) were the activities favoured by participants. As for teacher presentations, participants explained that they tried to make them dynamic using a variety of activities and scaffolding strategies (e.g., uploading the presentation to the course's virtual platform, backing up the presentation with a list of key terms, etc.) with the aim of activating prior knowledge of the topic and guiding understanding (Dale and Tanner 2015). On the other hand, most of the teachers had student presentations as one of the central activities in their lessons, as they considered student presentations to be a complex activity, cognitively demanding and integrating language skills.

TABLE 4. Types of activities

ACTIVITIES	2014-15 (N=17)	2015-16 (N=10)	2016-17 (N=18)	2018-20 (N=17)	2014-20 (N=62)
teacher presentation	7	0	4	3	14
student presentation	7	4	2	3	16
video-based activities	8	1	3	3	15
group discussion	2	0	1	3	6
group problem solving	3	0	0	0	3
class debate	3	2	1	2	8
direct questions	6	2	3	2	13
true/false questions	2	0	0	0	2
questionnaires, tests	0	2	0	1	3
brainstorming	2	0	0	0	2
vocabulary	2	0	0	5	7
paragraph matching	1	0	0	0	1
gap-filling	0	1	0	1	2
pronunciation and spelling	4	0	1	1	6
summaries	2	0	0	0	2
translation	0	0	0	2	2
web search	2	0	0	0	2
reading activities	0	1	2	1	4
writing activities	0	0	3	3	6
games	3	0	0	4	7
simulations	0	0	0	3	3
interviews	0	0	0	1	1
forums	2	0	0	0	2
TOTAL	56	13	20	38	127

Short thematic videos were quite useful resources according to participants. Moreover, multimedia resources with powerful visual support were considered to be generally successful when used properly. Participants normally used direct questions, subtitles, follow-up pair or group work and discussion.

Asking questions in any format comes naturally in educational contexts and our participants used questions to reinforce or check understanding (i.e., for assessment) but also for triggering web searches on the topic or for guiding or scaffolding students towards a fruitful outcome when engaged in more complex activities such as group discussion or class debates. As such, we agree with Sánchez-García that asking questions is a powerful strategy to enhance both teaching and learning processes (Sánchez-García 2018:106). In the same way as direct questions, activities that directly or indirectly focus on reinforcing key terms and specialized vocabulary have become almost an obsession for EMI practitioners, as they are aware that key terms convey essential subject-matter concepts. Moreover, many participants thought that reading articles in journals or set books and writing essays or summaries, in English, equipped their students with the necessary skills to become good communicators in their professions (T7, T16, T21, T23, T29). We would like to point out that in 2018-20 some teachers were already implementing, or directing their planning towards, more complex activities, such as serious games (N=4) and real-life simulations (N=3).

Finally, when talking about planning, we asked participants whether they had any language goals, that is, whether they included key terms, discourse functions or any specific language skills. In 2014-15 and again in 2018-20, only one participant (T5 in both cases) stated that she planned activities trying to integrate all four skills, as in her opinion, as a CLIL teacher she should help students gain command of the English language. This holistic approach to language issues is quite unusual for a non-language specialist, showing that a teacher should always be language aware when she plans or designs her courses. Eight participants openly declared that they had no language goals when planning activities. However, from the information gathered about the types of activities (see Table 4), language goals were likely intuitively in their minds.

3.2.4. Tracking the teaching-learning process: scaffolding, feedback, assessment

Scaffolding, feedback and assessment are three recurrent topics for in-service training teachers. This is the fourth thematic block of MS1. Very few participants gave their opinions on these topics for several reasons: maybe because they did not quite grasp the concept, as in the case of scaffolding as applied to bilingual teaching; or because they could not devote time to answering or simply did not know how to do it, as in the case of feedback; or even because some topics may be considered difficult in English-medium higher education, as in the case of assessment in English (Wilkinson and Zegers 2006), mainly due to uncertainties and fears caused by the language barrier (Rubio-Cuenca 2012; Reierstam and Sylvén 2019).

Regarding scaffolding, providing videos with subtitles or with transcripts in English, uploading presentations and glossaries of key words to the course's virtual platform, brainstorming as a technique for activating previous knowledge on the topic, underlining or highlighting key words, gap-filling or even alternating English with Spanish were mentioned as scaffolding techniques. Only fifteen participants (24.1%) in the whole 2014-20 period mentioned scaffolding explicitly.

From the limited information gathered, feedback was understood rather as corrective language feedback, even though the question had a more general goal, which included content as well as language feedback: "How do you give feedback on your students' learning process?" Only eight participants (12.9%) explicitly talked about giving feedback on language rather than content. They gave students feedback by checking pronunciation, using rubrics to check their progress in the language, repeating questions, or even writing corrective or encouraging remarks, such as "You should work on grammar!", "You are improving your pronunciation!"(T7, 2015-16). Some others said they gave corrective feedback when communication failed or when inaccurate vocabulary was used. For individual feedback, one participant regularly held one-to-one meetings with her students (T5, 2018-20).

Assessment in EMI has always been a controversial topic affecting both teachers and students. As stated by Wilkinson and Zegers (2006: 28), there is an assessment gap in English-medium higher education due to a series of assumptions regarding EMI teachers' competence to teach in English and students' competence to learn through English and to cope with highly demanding academic content. A crucial assumption amongst EMI practitioners was—and still is—that the students' competence in English is equal to what would have been expected if the students had studied in their mother tongue (Wilkinson and Zegers 2006: 29). Obviously, these assumptions may affect assessment at any level, particularly in our context with teaching staff enrolled in our BEP on a voluntary basis, without a minimum English level requirement, without an official accreditation, even without stating the bilingual nature of the teaching-learning process in the course syllabuses. Within this 'adverse' context, most teachers refused to assess in English the contents they had taught in English, as students might complain. They even run the risk of being admonished by the university authorities.

To be able to fully interpret the results of our study regarding assessment, we should keep all these assumptions in mind. Most participants admitted that they did not use English to assess the learning of their students in terms of subject content. Some declared that English was neither assessed nor evaluated, which means they did not focus assessment on language. Some of them gave students partial assessment, with the choice of doing tests in either English or Spanish.

Some administered evaluation questionnaires on the contents of the bilingual lessons to get feedback from their students, but they were not graded (T10, 2015-16). A Master's course participant stated that although she prepared all the texts and exams in English, the language itself was not evaluated (T9). The following statement provided by one of the most experienced teachers sheds some light on how EMI should integrate English assessment in their lessons: "For me, the students' professional development comes first and the students' English is assessed throughout the course, although English is never graded but the assessment (of the students' use of English) is integrated in the activities and projects of the course" (T5). Thus, English is assessed but students do not get marks for their performance in the language.

All in all, year after year participants recognized that they had been learning a lot as CLIL-based EMI teachers and all of them were very willing to continue imparting their course in the future using the techniques and strategies learned in our training programs.

4. Conclusion

Monitoring sessions through informal interviews in English with EMI practitioners have proved to be an appropriate tool to gather first-hand information on teachers' beliefs and perceptions regarding their practice as EMI teachers in order to track the development of bilingual programs and check the impact of training on the teaching-learning process. Within the context of the Bilingual Education Program (BEP) at the School of Engineering (UCA), monitoring sessions have shown a move over time towards participants' preferring to alternate English and Spanish in their lessons, supporting the results of our 2018-study where most teachers in this same setting valued the use of L1 as a resource. Moreover, there has been a gradual increase in the number of sessions and courses imparted in English. By the end of the period studied (2014-20), participants had increasingly committed to planning their courses in collaboration with other colleagues. The fact that we have no language-level requirement for joining our BEP together with the fact that participation in all the actions undertaken were on a voluntary basis may justify the average B1+/B2 English level of our participants, which is slightly below that of our 2018-study (Rubio-Cuenca and Moore 2018:93).

When asked about the drawbacks in their work as EMI teachers, the students' low or heterogeneous level of English together with insecurities about their own level of English stood out as teachers' main fears. The extra time needed to prepare and implement activities, the slower pace at which lessons advance together with the lack of institutional recognition of them as EMI teachers were other notable drawbacks. When compared with similar research, already mentioned in the

body of this work (Pavón and Rubio 2010; Pérez-Cañado 2014; Aguilar 2017; Sánchez-Pérez and Salaberri 2017; Rubio-Cuenca and Moore 2018; Contero 2020; Doiz et al. 2020; Llinares and Mendikoetxea 2020; Rubio-Alcalá and Mallorquín 2020), we conclude that these are key issues common to bilingual programs in higher education in Spain. In order to mitigate such issues, quality teacher-training programs should be designed and developed based on a detailed needs analysis for each specific academic context and backed by the structured internationalization framework that the institution needs to develop (see Bazo et al., 2017).

Fortunately, weak points are normally balanced by strong points and as teachers advanced in their training, they felt more satisfied with their teaching and with the students' progressive involvement with the new way of learning. Thus, we may conclude that monitoring and training have had a positive impact on their own self-image as EMI practitioners. Moreover, teachers were gradually becoming more confident with their command of the language and with how students were naturally acquiring the contents while improving their English.

As for teachers' goals regarding students, understanding subject-matter content came as a priority, which was promoted by encouraging students' oral communication and reading of subject-specific academic papers to reinforce the acquisition of key vocabulary and key concepts. Today's engineers need to be excellent communicators in English (T16). Participants demonstrated that although learning the contents is the priority, they felt that part of their responsibility as EMI practitioners was to help their students improve their academic and/or technical English, which often involves using Spanish as a resource or scaffolding strategy.

The results reinforce the perceptions of participants in our 2018 study (Rubio-Cuenca and Moore 2018) and are backed by similar research in different academic contexts (Airey 2012; Lasagabaster 2013; Aguilar 2017; Doiz et al. 2020; Llinares and Mendikoetxea 2020; Zayas and Estrada Chicón 2020). All these academic works highlight that teachers feel they should scaffold their students' subject-specific discourse in the foreign language, prioritize key vocabulary over language structures, and also help them with oral communication. We thus consider increased language awareness to be a radical change in how, after training, teachers perceive their teaching practice and themselves as teachers.

Another positive outcome of their training is how participants have oriented their teaching increasingly towards activities that would make their lessons more dynamic and balanced with the aim of raising the students' interest and motivation in an integrative context, regardless of their level of command of the language. Activities tend to be more naturally implemented and more ecologically minded (McConnell-Moroye and Ingman 2018) more student-centred, thus promoting a good learning environment.

Conventional activities in higher education such as teacher presentations, student presentations and asking questions, were thus planned and implemented in a more dynamic way than when courses were implemented in Spanish. Teachers even used scaffolding strategies to activate the students' knowledge and guide their understanding. Exploitation of thematic videos in a variety of ways was also a very popular activity in participants' classroom practice. Moreover, in the final monitoring period some participants reported employing complex activities such as debates, simulations or even serious games, thus devoting more time to student-student oral interaction, something quite unusual in university settings (Llinares and Mendikoetxea 2020; Zayas and Estrada Chicón 2020).

As for feedback, most of the interviewees understood the question as relating to corrective feedback on students' English, while our aim was rather to discover whether they gave both subject-matter and language feedback in English. Consequently, a few participants commented that they gave corrective feedback on vocabulary, on some grammatical constructions when students did not know how to express something in English and with pronunciation. We might call this 'incidental feedback' as there were no feedback strategies planned beforehand. Moreover, most teachers stated that they planned no language goals.

Regarding assessment, most participants reported that they did not assess English, even though our question was addressed to whether they assessed the learning process (i.e., content). We could thus conclude that content assessment in English in EMI environment is still a critical topic. Moreover, teachers fear students might complain about subject-matter content being assessed in English when it is not a requirement of course syllabuses. Therefore, we make a call to all stakeholders involved in the language policy of their institutions to channel bilingual teaching initiatives towards full recognition of EMI programs all over the Spanish university system. In this vein, we recommend universities to follow the three lines of action for internationalization proposed by the CRUE (Spanish Universities Board of Rectors): accreditation, training and incentives (Bazo et al. 2017).

We should not conclude our study without pointing out its obvious limitations and giving some suggestions for future research. One of the caveats of this analysis is the fact that the data under scrutiny is only part of our monitoring to be contrasted in future research with the teachers' self-perception of their performance, which is the aim of the second monitoring session, mainly focusing on class management and oral interaction. Another limitation is the limited scope of our analysis both regarding the number of participants and the academic context, a School of Engineering. A more generalizable picture would be achieved by extending the interviews to lecturers from other Schools of Engineering across Spain. Differences in the English language proficiency of participants was another shortcoming, which has obviously biased their views

and impacted their answers to our questions. A recommendation for further research would be to classify both qualitative and quantitative results according to participants' proficiency level and years of training as EMI teachers. Further research should be carried out on EMI's already proven relevant topics, such as classroom management, oral interaction, planning, time management, discourse management, materials and activities, content and language scaffolding, and strategies to improve pronunciation.

All in all, the results show that participants are satisfied with their training and have experienced great progress. After years of monitoring their teaching practice, it is clear that they have become more language aware and have a clearer image of themselves as EMI practitioners. They also feel they are contributing to improving both their and their students' language level, and that CLIL-based training and monitoring has meant a turning point in their teaching practice by applying specific didactic strategies making the learning process more dynamic, participatory, stimulating and creative.

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