Prof-teaching: An English-medium instruction professional development program with a digital, linguistic and pedagogical approach

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Abstract

The increase of English-medium instruction (EMI) in higher education has encouraged institutions to provide their academic staff with professional development courses. In this paper, we present the case study of Prof-teaching, a comprehensive EMI teacher training program at a Spanish university with a digital, linguistic and pedagogical approach. The main objective is to determine if the program meets the needs of the institution's current and prospective EMI lecturers. For this purpose, the university context, the key factors that promoted the program, and the objectives and components of its three modules are described. Then, a survey is conducted to gather demographic data and information about Prof-teaching participants' experience, motivation, needs and challenges in relation to EMI. Among the most interesting results was that experienced EMI lecturers claimed that pedagogical training was more important than developing linguistic competence, whereas inexperienced teachers were more concerned with their level of English. In general, the findings of the survey and final course evaluation questionnaires provide evidence of the benefits of the Prof-teaching EMI professional development program. The paper highlights the importance of collaborative efforts among university units to implement EMI teacher training initiatives, as well as conducting periodic needs analysis and quality evaluations. In addition, it is recommended that programs provide lecturers with support technology and that they include mentoring schemes with previously trained EMI content lecturers who already have experience in teaching their subjects in English.

Keywords: English-medium instruction, professional development, digital support, linguistic training, pedagogical training, mentoring.

1. Introduction

The rapid growth of English-medium instruction (EMI) in non-anglophone universities has brought with it many challenges for institutional authorities, language policy makers, teachers and students (Dearden 2014; Dafouz 2018; Macaro et al. 2018; Jiang, Zhang, and May 2019; J. Kim, EG. Kim and Kweon 2018). Each academic year more and more lecturers are confronted with having to switch from teaching in their first language to English without a great deal of training and preparation (O'Dowd 2018; Vu and Burns 2014). Thus, one of the main concerns of implementing EMI in non-anglophone universities should be developing professional development programs that will support academic staff to face their new and diverse EMI classroom scenarios.

In this paper, we present a case study of the implementation of Prof-teaching (acronym in Spanish for *Programa de formación para la enseñanza en inglés* translated- A teacher training program for teaching in English), a carefully planned and highly evaluated three-part EMI teacher training program with a digital, linguistic, and pedagogical approach. Our main objective is to determine if the program meets the needs of the institution's current and prospective EMI lecturers. The literature review that follows provides a brief overview of studies that have focused on EMI professional development initiatives and what they entail.

Until recently, research specifically on developing EMI teacher training programs was scarce. According to Macaro, et al. (2018, 56), "there is virtually no research data available on types of teacher preparation programs in EMI in higher education (HE)"; they go as far as stating that "they simply do not exist". Wilkinson (2018, 611) also alludes to the little that is known about what kind of linguistic and pedagogical training teachers in EMI require and receive. The same situation is noted in other universities worldwide (Jiang, Zhang, and May 2019). Nevertheless, in the past two years a plethora of studies, such as Sanchez-Perez (2020), Jimenez-Muñoz (2020) and the 'EMI teacher training in higher education' 2021 Special Issue of the *Alicante Journal of English Studies*, have begun to explore lecturers' needs, specific programs and their development in all parts of the world.

As far as lecturers' needs are concerned, Jimenez-Muñoz (2020) found in his case study of 162 EMI lecturers at Spanish Institutions that they were confident in their curriculum and teaching design skills, whereas they did not feel strong in methodological aspects such as ICT support, active methodologies, inter-cultural awareness, or language assessment. Interestingly, this need for pedagogical training was already highlighted by Klaasen & De Graaff (2001) and Kurtán (2003) two decades ago. Klaasen & De Graaff (2001) recommended that teacher training programs should include a focus on: (a) effective lecturing behavior, (b) awareness of second language acquisition difficulties, (c) reflections on beliefs and actual teaching behavior, as well as (d) cultural issues. Kurtán (2003) suggested that development initiatives should reflect main features of discourse practice and learning activities of target situations. She claimed that exposure to task-based, problem-solving and participant-oriented methodology can enrich academics' teaching repertoire.

EMI lecturers' reflections on both classroom pedagogy and language have also been pointed out as necessary components of professional development (Klaasen and De Graaff 2001; Kurtán 2003; Costa 2015; Guarda and Helm 2017; Gundermann and Dubow 2018; Airey 2020; Gay, Bewick, and French 2020). Gundermann & Dubow (2018), who outline an EMI assessment scheme at a German university, claim that reflection is a tool for quality. Guarda & Helm (2017), for example, explore how a shift in language makes lecturers at an Italian university reflect and innovate on practice. According to Costa (2015, 129) "training should be rethought as an exercise on self-awareness, self-discovery, and self-reflection". Although most studies refer to reflection on content lecturers' linguistic practices, others (i.e. Airey 2020; Gay, Bewick, and French 2020; Morell, Norte, and Beltran-Palanques 2020; Morell 2020) focus on the benefits of pedagogical awareness. As claimed by Gay, Bewick, and French (2020), although "transmissive lecturing styles" still predominate in most universities, interactive methods are being recognised as better options in the EMI contexts and reflective practices should be encouraged in EMI training. Similarly, Morell (2020) highlights the importance of interaction together with raising instructors' awareness of the use and combination of different modes (i.e., speech, writing, non-verbal materials and body language) to facilitate students' comprehension. In reference to the spoken mode or language use, Guarda & Helm (2017), for example, believe that professional development schemes should address language needs and

also offer a space for reflections. In addition, knowledge from the fields of English for Specific Purposes (Martín del Pozo 2017) or English as a Foreign Language (Gay, Bewick, and French 2020) have provided effective teaching practices and materials that could now be used in EMI. Besides reflecting on classroom pedagogy and language, there is also a need to consider how we can use ICT to better support both EMI teachers and students (Jiménez-Muñoz 2020; Guarda and Helm 2017; Borsetto and Bier 2021).

Professional development programs, according to the aforementioned studies, should take into account both pedagogical and linguistic needs. Nevertheless, so far there is no consensus about their contents nor their structure. Studies such as O'Dowd (2018), Costa (2015) and Jiménez-Muñoz (2020) have demonstrated that there is a lack of agreement among universities of whether to offer just linguistic support or a combined program with both pedagogical and language training. Jimenez-Muñoz's survey of 144 EMI-lecturer training programs in 21 countries worldwide revealed that "a landscape of differing requirements, language levels and content" exist amongst them (2020,132). Similar findings were reported by Costa (2015) in the European context, or Jiang, Zhang and May (2019), J. Kim, EG. Kim and Kweon (2018) or Vu and Burns (2014) in studies carried out in Asia. In the past two decades many diverse programs and support schemes have been developed. The latter range from advisory sessions to online discussions between EMI lecturers of different countries, such as *Two to Tango* (Valcke and Romero Alfaro 2016). Some training courses have fixed contents without adaptation for specific contexts and cultures, such as the Cambridge Certificate on EMI Skills and the EMI Oxford course (Martinez and Fernandes 2020), whereas others have conducted needs' analysis to provide for the specific necessities of their lecturers and students, as was done in the British Council China (Gay, Bewick, and French 2020). Other programs have taken into account the international classrooms and intercultural issues, such as the InterCOM at the Universidad Complutense de Madrid (UCM) (Sánchez-García 2020), or the DOing program at the Universidad Autónoma de Madrid UAM (Llinares and Mendikoetxea 2020).

A review of the literature shows that implementing a new EMI teacher-training program entails exploring lecturers' needs, examining types of programs and looking at how they have been set up in other contexts. The DOing program at the UAM (Llinares and Mendikoetxea 2020), for example, offers linguistic and methodological instruction and particularly fosters collaborative learning among peers. This program, which is the result of a coordinated effort among different university units and departments, started as a single course, English for Teaching Purposes, and it is now a complete program that provides lecturers with language certification, teaching experience and EMI accreditation. EMI teacher-training courses, such as DOing, pave the way for future training programs as the one presented here.

In this study, we set out to explore if Prof-teaching, the EMI comprehensive professional development program at the University of Alicante (UA) in Spain, meets the needs of the content teachers who are faced with using English as their classroom language. The study involves program participants' feedback and the analysis of the final course evaluations. Before focusing on the study, we describe the context and the driving forces that promoted the program, then the objectives, as well as the components of its three modules.

2. The Context of the Program

This section describes the University of Alicante's context in terms of the growing implementation of EMI subjects, its language policy, the findings of a university-wide EMI survey (Morell et al. 2014), and the previously offered EMI teacher training workshops. The

descriptive data of this section was gathered from the institutional websites, its annual reports and the *Instituto de las Ciencias de la Educación* (henceforth ICE)*,* the institution's Unit for Innovation and Professional Development.

2.1. The University of Alicante

The UA is a public institution of higher education in the Valencian Community, which has two co-official languages, Spanish and Catalan (Valencian variety). According to the 2018 memorandum report, over 21,000 students were enrolled within the 49 undergraduate degrees, 56 masters or 30 doctorate degrees of the university's eight faculties. Each of these faculties offered a broad range of content subjects in diverse languages (2121 subjects in Spanish, 478 in Catalan, 443 in English, 85 in French and over 100 in other languages). Among those offered in English, 183 were considered EMI courses. A large number of these subjects are taught within degrees that have a special program called *Alto Rendimiento Académico* (ARA) (High Academic Performance) that is available for outstanding students who have at least a B2 level in English. Students in the ARA program have half of their subjects in English. In 2018 at this institution the total number of credits with English as the language of instruction was calculated to be 1453,5 (14,535 face-to-face hours), a number that has grown from previous years and continues to do so. According to the 2019-20 report (see Fig 1), the number of EMI subjects have increased in nearly all faculties since the 2014-15 academic year.

Faculties	2014/2015	2019/2020
Arts & Humanities	71	73
Social Science & Law	46	56
Sciences	23	24
Engineering & Architecture	80	76
Health Sciences	8	11
Education	8	16
Total	236	256

Fig 1. Number of EMI subjects taught in each of the faculties at this institution.

This institution, as others, is immersed within an internationalization process that has come about: (a) to improve the university's prestige, (b) to attract international students, (c) to support progress in L2 learning and (d) to benefit staff and students' future academic and professional prospects (Morell et al. 2014). The Prof-teaching EMI teacher training program was set up in response to the demands of internationalization and in the framework of the institution's language policy described below.

2.2. The institution's language policy

The institution's language policy focuses mainly on the importance of learning languages to contribute to the academic and professional development of the university community through the use of official (Spanish and Valencian) and non-official languages (English and others). To do so, the university has issued grants for students and offered free

language courses to all staff provided by the *Centro Superior de Idiomas* (henceforth CSI), the institution's language center. It also has made it possible to offer content subjects in other languages. In addition, due to this policy, the ICE continuously provides lecturers with courses to support their research and teaching, as well as to enhance other languages. Among these workshops are the precursors of the Prof-teaching EMI teacher training program.

2.3. Previous teacher training workshops

The growth and implementation of EMI courses at this university have gone hand in hand with a series of teacher training workshops sponsored by ICE. These 20-hour courses based on studies on interaction and multimodality (e.g. Morell 2007, 2015), have been offered yearly to the university staff on a volunteer basis. Among them were 'Academic English for teaching and presenting', 'English for teaching content courses at university' and 'English as a medium of instruction at university'. For the three workshops, participants reflected on spoken English, became aware of multimodal communication and put into practice what they had learned by performing mini-presentations or mini-lessons. As indicated on Fig 2 there have been numerous editions and participants for each of the workshops.

Teacher-training workshop	Years offered	Number of editions	Number of participants	Overall evaluation grade /10
Academic English for teaching and presenting	2007-2018	16	381	9.6
English for teaching content courses at university	2011-2018	8	152	9.4
English as a medium of instruction at university	2014-2018	5	97	9.3

Fig 2. EMI workshops' years offered, number of editions, participants, and overall evaluation.

'Academic English for teaching and presenting', the first and longest-lasting workshop, consisted of helping participants to present their research at an international conference and to teach their content subjects in English. In the first years, most participants were more interested in preparing themselves for communicating in English at international conferences than in their classrooms. However, the demand for training to teach in English grew as the number of courses held in EMI increased. Consequently, in 2011 the course 'English for teaching content at university' was launched. Then soon after in 2013, course participants demanded more specific EMI training and the course 'English as a medium of instruction at university' was designed to fill that need by paying particular attention to EMI classroom language and to pedagogical aspects such as lecturing styles and lesson planning.

Workshop participants' responses to surveys throughout the years have indicated their positive feedback and their demand for more and longer EMI language and professional development courses. When asked at the start of the workshops "What do you think you need to be better able to teach in English?" lecturers without EMI experience reported mostly linguistic needs, whereas those with EMI experience referred to teaching skills and gains in self-confidence.

2.4. An EMI university-wide survey

To face this emergent EMI scenario, a university-wide study and survey (Morell et al. 2014) were conducted. The study, which set out to explore the university's language policy and its promotion of EMI, revealed that English was being widely used especially for international research collaborations and for many undergraduate and postgraduate degree subjects. In fact, 251 content subjects, i.e., 11.36% of the subjects being taught in the 2013-2014 academic year were in English.

The survey that aimed to learn more about teachers and students' attitudes and needs in relation to using English was responded to by 35% (n= 825) of the teaching staff and by 8.25% (n=2,257) of the student body. Seventy percent of the respondents had a positive attitude towards EMI. They believed that it created academic and professional opportunities for students and fostered international relations. Students reported that EMI teachers tended to use English when lecturing or presenting topics, but were more likely to speak in Spanish when activities involved interaction, e.g. questions, tutorials, announcements (Morell et al. 2014, 2628). The lecturers with a positive attitude (35%) were not willing to use EMI, unless they received further linguistic and pedagogical training. The teachers' responses indicated that the students' English needed improvement and subjects for specific purposes could support them (2622). They also highlighted the necessity of developing oral expression and classroom interaction strategies for both teachers and students in academic settings. The majority of the polled lecturers considered training to be necessary and suggested offering more courses to improve their oral expression and classroom interaction techniques.

The findings from the questionnaires administered in the previous EMI workshops together with those from the university-wide survey (Morell et al. 2014), and the institution's language policy plans have provided valuable information to design and implement a complete program to develop EMI teachers' digital, linguistic and pedagogical competences.

3. The Prof-teaching EMI teacher training program

The first meeting to plan the EMI teacher training program took place in February 2018. At that meeting previous UA workshops were compared with those from other Spanish universities by members of the departments of English Studies and Innovation and Didactic Training, the Language Center (CSI), the Unit of Linguistic Policy and the ICE coordinators. Conclusions from that mapping together with results from previous research determined that the program would have a digital, linguistic and pedagogical focus.

To meet the needs of lecturers using or intending to use EMI, a three-module program (see Fig 3) was designed. The first has a digital and linguistic focus, whereas the second and third have a pedagogical one. Although modules 1 and 2 can be done in any order, module 3 can only be done if the previous two have been completed. Module 2 can be convalidated for lecturers who have taken previous EMI workshops with a pedagogical focus (see 2.3). The program is offered to academics with at least a B2 CEFR English level, regardless of their EMI teaching experience. The three modules are held in English and focus on active teaching methodologies and class dynamics. Thus, participating and implementing the learned communication strategies is highly valued.

Module 1 (45 hours)	**Digital and linguistic tools for EMI**
26 hours face to face 19 hours on-line	Digital tools for EMI teachers Pronunciation and prosody English for the classroom Academic and Specific English
Module 2 (30 hours)	**EMI: Reflections, awareness and practice (RAP)**
20 face-to-face hours 10 on-line hours	EMI reflections Multimodal classroom communication Teaching methodology and lesson planning Mini-lessons
Module 3 (20 hours)	**Observations and practice**
13.5 face-to-face hours 6.5 on-line hours	Designing and writing course programs Peer observation of teaching Teaching, feedback and assessment

Fig 3. The itinerary of the Prof-teaching professional development program.

3.1. The First Module: Digital and linguistic training

Module 1 is named, 'Digital and linguistic tools for EMI*'* and aims to provide lecturers with language strategies and resources for the EMI class. The syllabus is organized into the following four sections: 'Digital tools for EMI teachers', 'Academic and specific English', 'English for the classroom', and 'Pronunciation and prosody'. This module, which consists of 45 hours (26 face to face hours and 19 on-line hours), responds to the needs of linguistic support reported in the questionnaires from the previous workshops and in the university-wide survey (Morell et al. 2014).

During the first part, 'Digital tools for EMI teachers' (see Fig 4), lecturers are given IT resources to produce better quality materials and boost self-confidence when preparing lessons. This incorporation of support technology to aid in linguistic issues and in teaching tasks is one of the distinguishing factors of Prof-teaching in comparison to other EMI professional development programs.

Digital Tools for EMI teachers

1) Language setting on browsers
2) Use of spelling and grammar checkers
3) Machine translation: pros and cons
4) Terminology, words in context and other domain-specific content resources
5) Presentation of some academic language resources
     a) Style guidelines, phrase-banks and collocations
     b) Some free online training resources for EMI teachers

Fig 4. Contents of 'Digital tools for EMI teachers.

The second section, 'Academic and specific English' (see Fig 5) aims to make EMI lecturers more aware of the academic and specialized language needed to meet the demands of a content subject and to provide them with resources to facilitate teaching and learning.

Academic and Specific English

1) The CEFR and the adaptation of materials used in lessons
2) Academic genres
    a) Academic vocabulary
    b) Academic registers
    c) Academic corpora
3) English for Specific Purposes
    a) Specialized vocabulary
    b) Elaboration of glossaries
    c) Digital resources for specific vocabulary

Fig 5. Contents of 'Academic and specific English.

'English for the classroom' (see Fig 6), the third section, deals with communicative and intercultural skills in the classroom, especially daily phrases and expressions that build exchanges between students and teachers and create rapport.

English for the classroom

1) Language and strategies for classes in English
2) Preparing and presenting visuals (diagrams, tables, graphs, etc.)
3) Classroom management
4) Question management
5) Giving feedback to the whole class and individuals
6) Intercultural competence: knowledge, attitudes, and values
7) Teachers' and learners' expectations about the teaching/learning process
8) Plurilingual and multicultural teachers/students: intercultural mediation

Fig 6. Contents of 'English for the classroom.

Finally, 'Pronunciation and prosody' (see Fig 7) focuses on practicing key sounds that are essential for understanding and on offering self-learning resources to check and improve pronunciation.

Pronunciation and prosody

1) What is intelligible pronunciation?
2) EFL and pronunciation
3) Common errors among Spanish ELF users
4) Resources for autonomous practice and improvement

Fig 7. Contents of 'Pronunciation and prosody.

3.2. Modules 2 and 3: Pedagogical training

Pedagogical training is the main focus of the second and third modules. The second is named, 'English-medium instruction (EMI): Reflections, awareness and practice' (RAP) and the third is 'Observation and practice'. Module 2, 'EMI-RAP', is an updated version of the previous ICE workshops (see 2.3), which consists of a 30-hour course (20 hrs. face to face and 10 hrs. on-line). Its main objectives are to:

1) Reflect on the principles of EMI,
2) Become aware of multimodal and interactive competences, teaching styles and lecturers' discourse,
3) Practice planning, performing and evaluating lessons in EMI.

These objectives are fulfilled in the 4 sections of this workshop. In the first, participants share their personal situations in terms of EMI needs and challenges. In the second, they become aware of the use and combination of verbal and non-verbal modes. In the third, they reflect on lecturing styles and review lecture types ranging from the traditional non-interactive to the flipped classroom. Then, they plan and prepare their own mini-lesson for the fourth and last section. In the final two sessions each participant puts into practice what they have learned by engaging their classmates in a 10 to 20-minute mini-lesson on a basic concept of their field of study. These mini-lessons, which are constructively co-evaluated by workshop peers, using the criteria in Morell (2015), are video-recorded for self-evaluation, training and research purposes.

Module 3, 'Observation and practice' is a continuation of 'EMI-RAP', but it focuses on participants' actual performance in their specific fields. This module, which entails 20 hours (13.5 hrs. face to face and 6.5 hrs. on-line), responds to previous workshop participants' demand for further observation and practice in their own disciplines. It consists of three phases. In phase one, participants are asked to design a course program. In phase two, they observe the lectures of two of their field-specific colleagues, who have taken one or more of the previous EMI workshops (see 2.3) and who have been designated as EMI mentors. In phase three, participants deliver a 20-minute lesson that is videotaped, evaluated and given feedback by peers. This peer observation and mentoring by content specific colleagues is another of the distinguishing features of Prof-teaching in comparison to other EMI teacher training programs.

4. The Study

This study presents the results of the first two years of the program's implementation and it aims to determine if the modules meet the needs of the academic staff who use English in class. For this purpose, a survey was designed and administered to Prof-teaching participants prior to taking the first module. The survey was an instrument to find out more about participants' background, EMI training course expectations and previous EMI experience. Once the EMI training course had finished, information was gathered from the participants through the institutions' quality assurance questionnaires, which allowed us to determine the degree of participants' perceived benefits of the program. In sections 4.1 and 4.2, the survey procedures and findings are described. Then, in sections 4.3 and 4.4, the quality assurance course evaluation surveys and their results are given.

4.1. The Survey

In this survey, which was created using LimeSurvey© web application, much like the one in Morell et al. (2014), demographic data and information about course participants' experience, motivation, needs and challenges in relation to EMI were gathered. The survey was delivered by means of an on-line questionnaire that was answered by the participants at the beginning of the first module of the 2018-2019 and 2019-2020 editions of Prof-teaching. The questionnaire consisted of 5 sections. In the first section, the questions focused on background data such as gender, age, field of specialty, years of teaching experience and motivation to teach in English. The second dealt with their English competence and the third with their EMI teacher training course expectations. The fourth and the last were about their needs, advantages, drawbacks, and recommendations for EMI teaching. The data from the open questions of the questionnaire were analyzed with the software Atlas.ti7©, whereas Excel© was used for the closed questions. The findings below summarize the most relevant outcomes of the survey.

4.2. Survey findings

Background and motivation

The demographic data was collected from 28 participants from the Faculty of Science (n=8), the Polytechnic School (n= 6), the Faculty of Economics (n=5), the Faculty of Education (n=5), the Faculty of Law (n=2) and the Faculty of Humanities (n=2), which allowed us to determine the participants' average profile. There were 16 females and 12 males that were mostly between 41 and 50 years of age and whose teaching experience ranged from 6 to over 15 years. In general, they had had a considerable amount of experience with Academic English mostly in presenting at conferences and writing papers for publications. As regards their motivation to teach in English, approximately a third stated that they considered it a professional challenge, whereas a quarter indicated that EMI courses provided students with more academic and professional opportunities for the future. Eighteen percent believed that implementing EMI courses attracted international students and eleven percent stated that they were teaching in English because it was required by their departments. Finally, eight percent claimed that they were just interested in the financial or academic compensations. Two respondents did not offer an answer to this question.

English competence

The majority claimed to have a B2 level (see Fig 8); nevertheless, their level of competence was not the same in each of the skills. They stated that it is easier for them to read and listen than to write and speak in English.
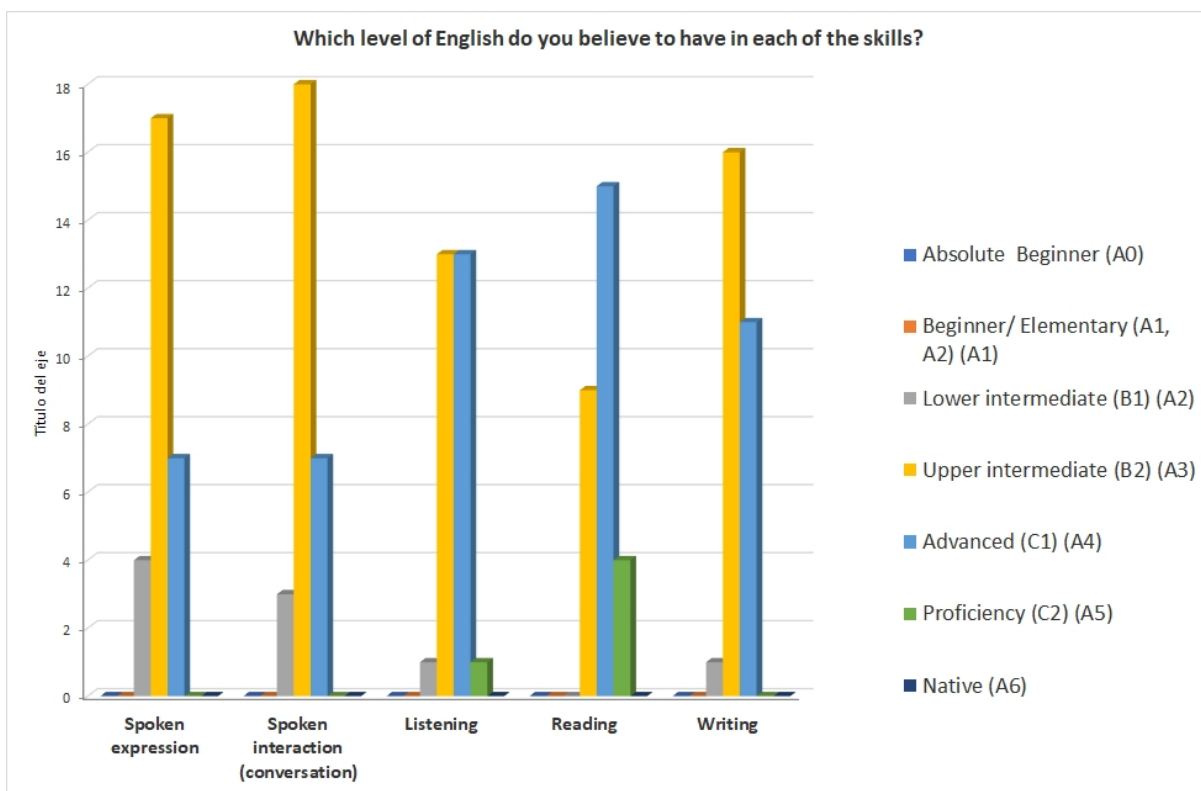
Fig 8. English language competence.

Course expectations

The responses to the open questions related to participants' course expectations for the EMI teacher training program indicated that nearly a third of the respondents (31%) expected not only to learn new methodologies, but also to be able to apply innovative tools and EMI-related resources to improve their lessons in English. Furthermore, the lecturers were interested in developing their speaking skills (22.5%) in order to be more effective in their communicative exchanges with the students; this was followed by their interest in improving their level of English in general (12.7%).

EMI teaching experience

As far as their previous experience teaching in English, 10 out of the 28 already had experience and half of the remaining 18 were willing to switch to using English in their classrooms. The 10 who had EMI teaching experience had taken one or more of the prior workshops (see 2.3), whereas for the 18 without any EMI experience (prospective EMI lecturers), this was the first time they registered for an EMI teacher training program. Five out of the ten with EMI experience had taught in an ARA program (see 2.1), whereas 5 out of the eighteen without experience considered that being able to teach in an ARA course or similar programs would be an incentive to start teaching in English.

Needs, drawbacks and recommendations

When survey participants were asked to rate the actions that could be taken to promote the use of English in content courses (see Fig 9), they gave more importance to courses for

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developing oral skills and classroom interaction than technological support or academic and specific language.
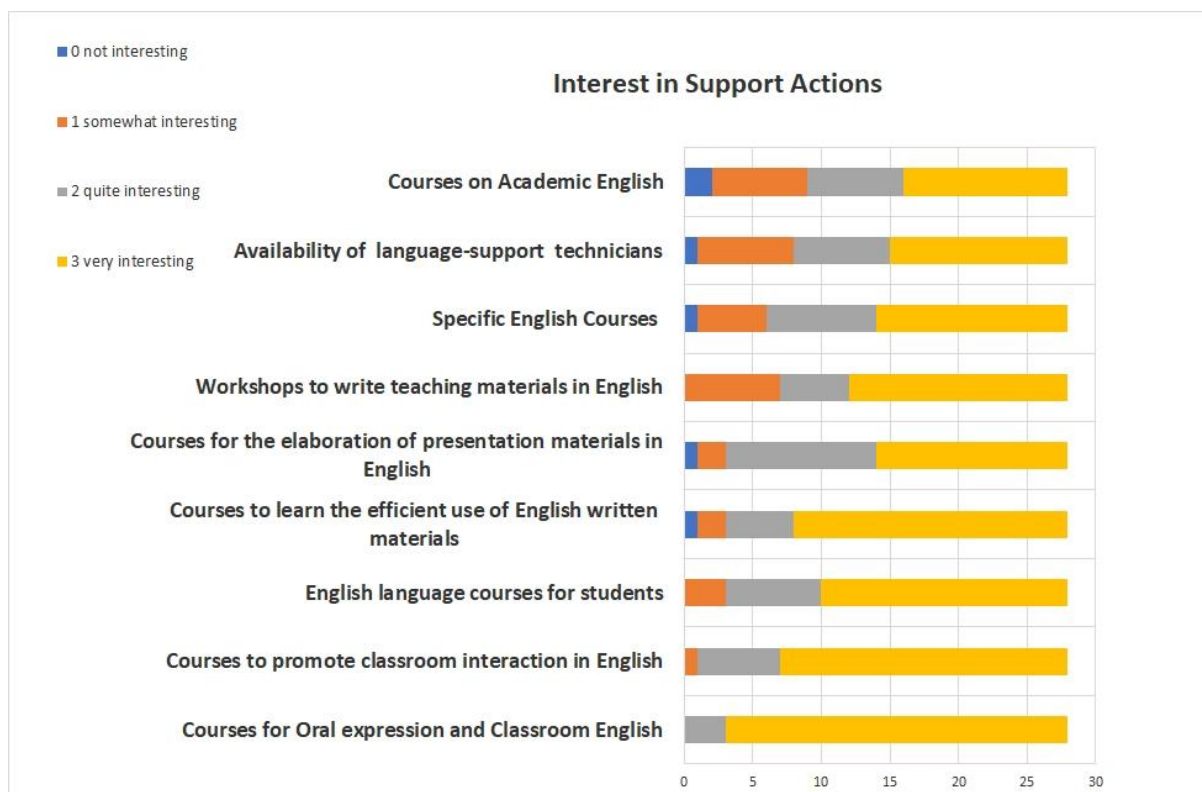

Fig 9. Actions to promote the use of English as the working language in content courses.

When the eighteen participants without EMI experience were asked what condition(s), if any, would be necessary for them to teach in English, they responded as follows. Five stated that they would be willing to teach in English in any case without any particular support. Nine stated that they would be willing to teach in English if they were provided with technical support and training courses. In addition, three would only be willing to teach in English if there was an ARA program (see 2.1) in their degree. Another three demanded recognition of the added effort to teach in English, either by having less credits in their workload or through some financial compensation. Finally, only one person claimed that he was not willing to teach in English. A total of 21 responses were gathered because participants were permitted to choose more than one response.

When the respondents with some EMI experience (10 lecturers) were asked which were the most difficult tasks, they claimed that explaining contents in class and elaborating materials were challenging; whereas interaction with the students and evaluation and assessment were the easiest (see Fig 10).
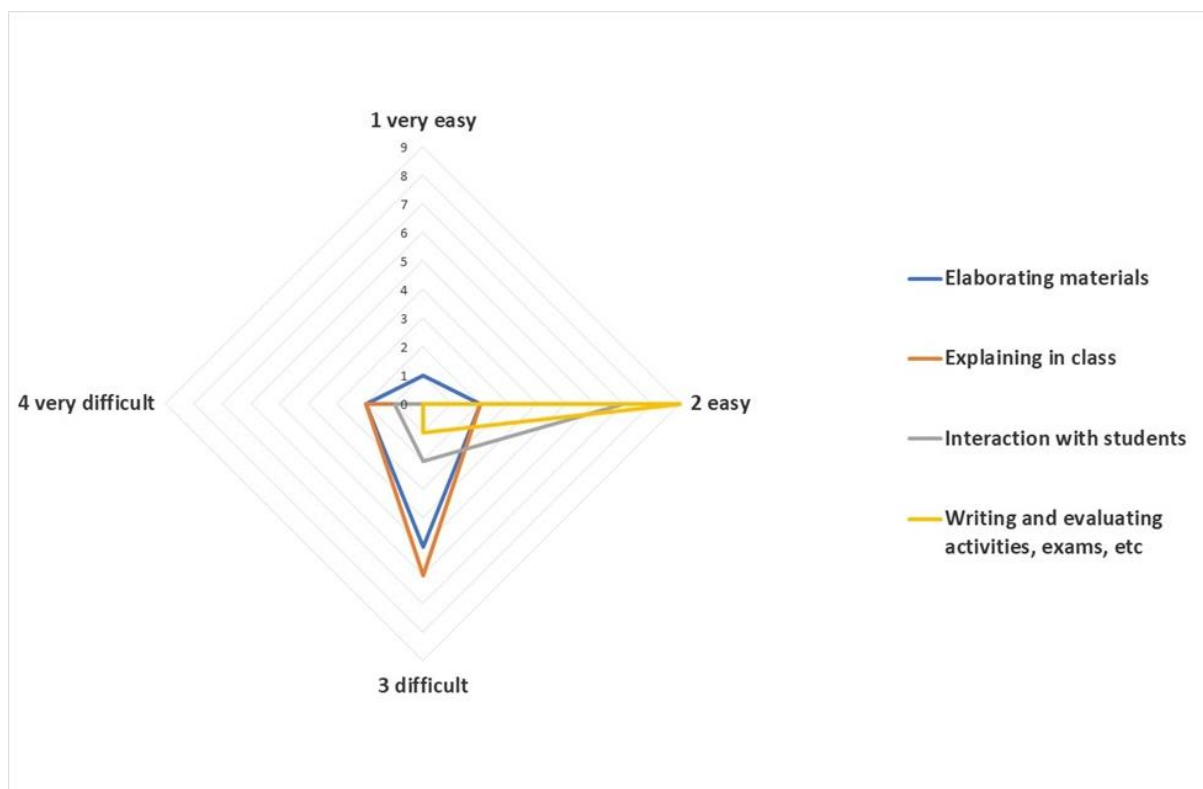
Fig 10. Level of Difficulty of Classroom Tasks for the teacher.

In fact, when requested to give some advice for other colleagues who did not have any experience in EMI, the majority of the suggestions had to do with the preparation of explanations and delivery of content. For example, some of the respondents made the following verbatim comments:

> *You should prepare the class very well, with an extra effort for specific language to communicate with students.*
>
> *Prepare the terminology and do not be worried about your English.*
>
> *Try to explain things easy and so prepare the materials in an easy way*

Other suggestions focused on the relevance of communication over accuracy or on the importance of being confident. For example:

> *The most important for the students is to learn the corresponding subject, no matter your English is not "the best one"*
>
> *Depend on the subject, if it is very technical I would recommend to use not a very technical language. To support the lessons with practical activities, that combine both theory and practice.*
>
> *Take it easy!!*
>
> *To go ahead and be self-confident.*

Teachers with some experience and professional development courses saw the implementation of EMI as a choice that implies effort and where it is capital to use better teaching methodologies and resources to support teaching and learning. They were also aware of the fact that students often did not have sufficient competence in English and, therefore, were less able to acquire subject contents with the same level of success as the students enrolled in a course taught in their native language.

For the respondents, the main threats for EMI implementation are the teachers' low level of English and the lack of knowledge of teaching resources/ methodologies; followed by the students' low level of English. If we analyse the results separating the responses from experienced and inexperienced teachers (see Fig 11), there are no significant differences. Although experienced teachers have graded the lack of knowledge of teaching methods as the most important threat, inexperienced teachers believe that teachers' lower level of English is a more important one. Interestingly enough, the lower positions in the ranking are occupied by the threat that EMI may force a reduction in the subject contents or that the students may have a lower academic achievement.
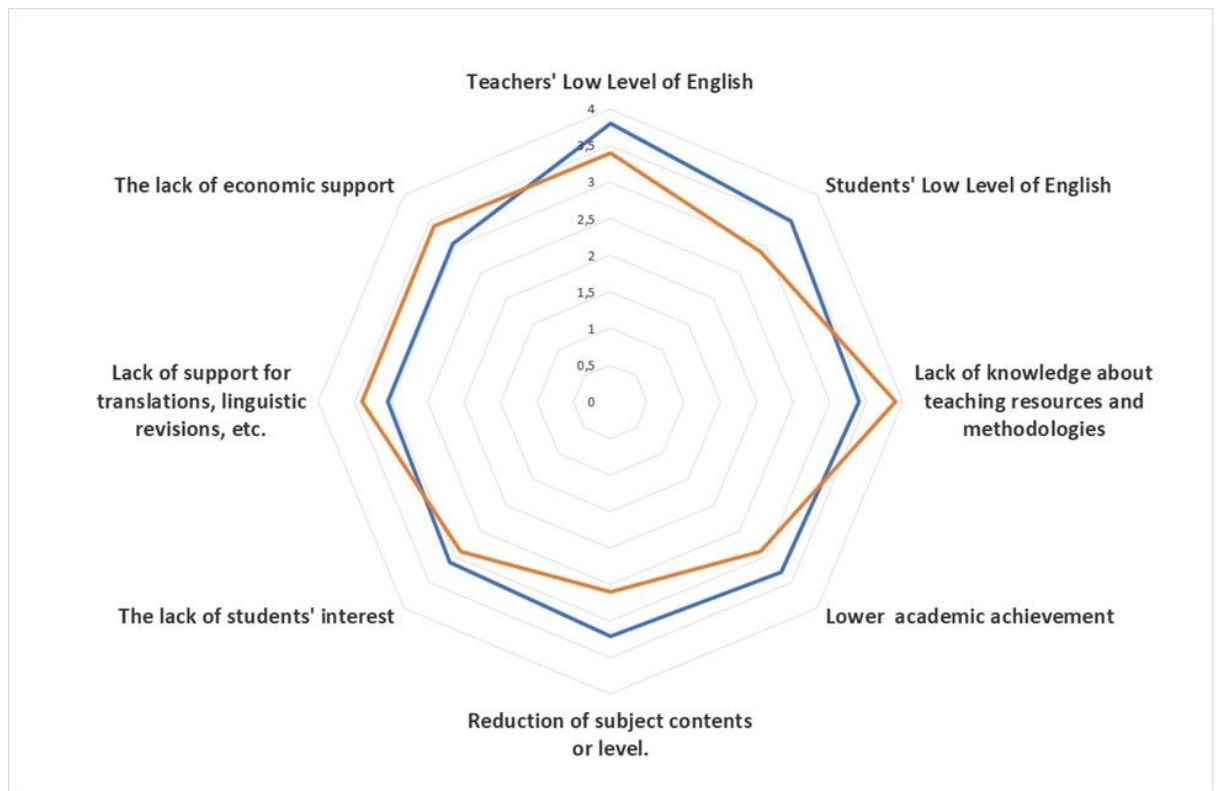

Fig 11. Evaluation of the perceived level of difficulty imposed by different threats in EMI implementation (from1-low to 5-very high).

When the participants were asked to rate the assets they had to face the challenge of teaching in English on a scale from 1 to 5 (see Fig 12), the importance of English in their area of knowledge, their general teaching methodologies and their competence in English (general, academic and specific) were in the highest positions. Methodological resources for teaching specialized language and students' competence in English were ranked in lower positions on the scale together with teaching experience in EMI.
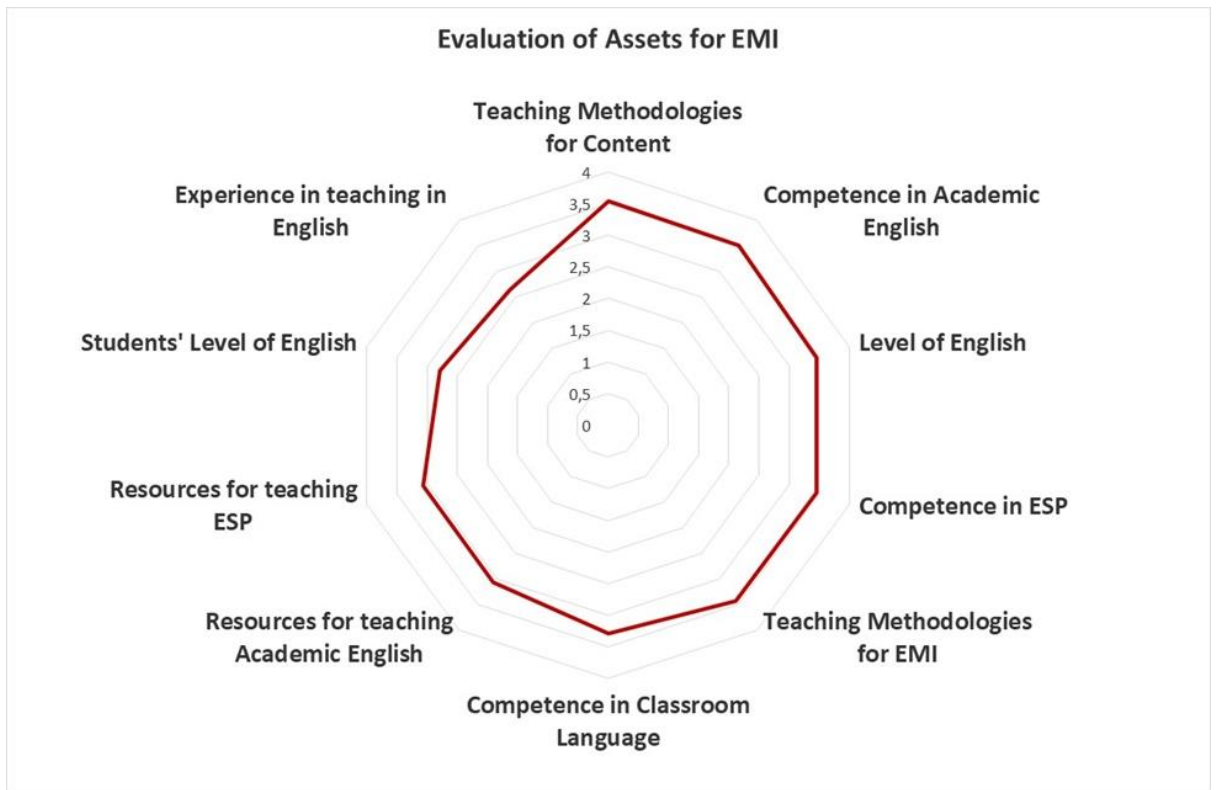
Fig 12. Assets to face EMI courses (all respondents with and without experience).

However, those without EMI teaching experience, in contrast to those with it, gave more value to their competence in the language than to their pedagogical know-how (See Fig 13).
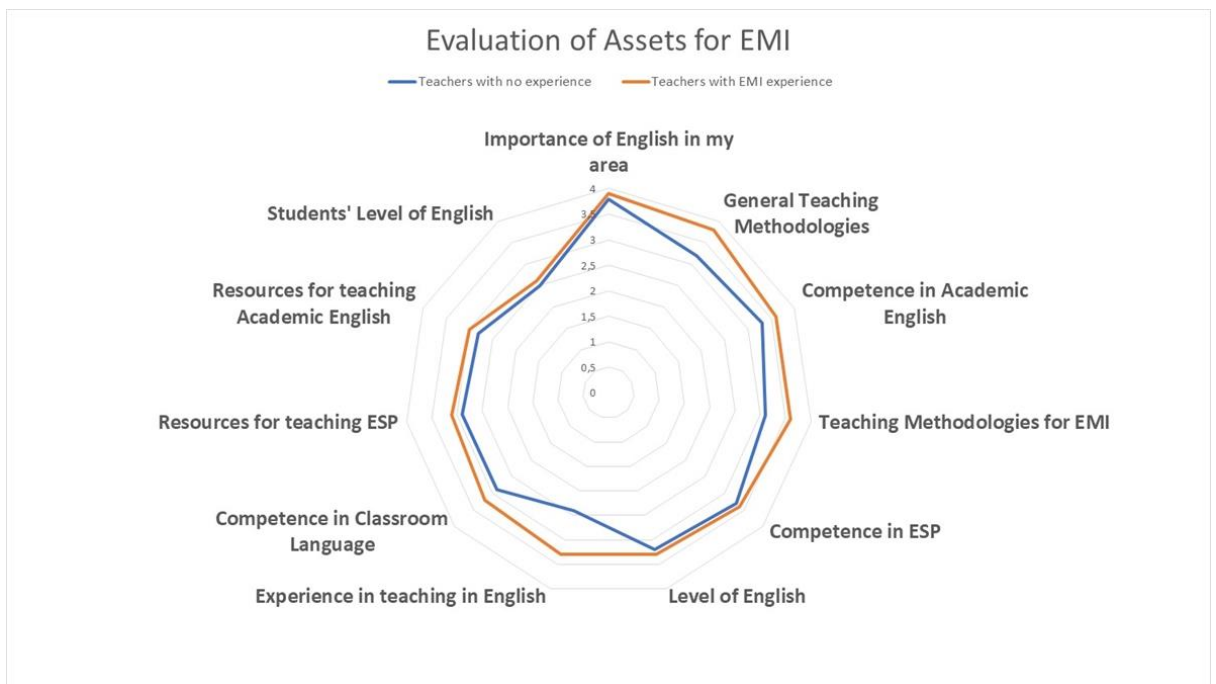

Fig 13. Assets to face EMI courses: comparison between respondents with and without experience.

Finally, at the end of the questionnaire an open question was used to elicit conclusions and final reflections about EMI courses. Half of the respondents (14 out of 28) answered it and offered some conclusive comments about the implementation of EMI at the UA. Among their responses, they claimed for better support for EMI courses, through the academic recognition of lecturers, the reduction of hours, or a salary bonus. They also alluded to the necessity of improving lecturers' competence in English as a major need if the university intended to encourage and extend the EMI program. Some of the comments from lecturers with EMI experience focused on the need to make lessons more dynamic to deal with the diverse linguistic levels and cultural backgrounds. One of the respondents commented the following:

> *For me, the most important thing is to make the class in a fluent way and to teach to the students in a dynamic way, above all because the students are more reluctant to participate in English. Previously, I gave another subject in English at the University of Deusto, both the contents and the type of students were completely different, most of them were natives. But, my target was the same, dynamism at the classes.*

In general, respondents noted that both teachers and students needed to make an extra effort in terms of time and work. Part of this investment would have to be spent on training courses that could help them to improve their English, their communication skills as well as teaching and learning in the multi-faceted EMI classroom scenarios.

4.3. Evaluation of the Prof-teaching modules

The second part of this study consists of the evaluation of the three modules, namely 'Digital and linguistic tools for EMI', 'English-medium instruction: Reflections, awareness and practice ('EMI-RAP') and 'Observation and practice'. At the end of each of the modules, as is done with all courses in this institution, participants are encouraged to complete quality assurance surveys to evaluate the courses and the teachers, as well as to make suggestions for further improvement. These course evaluations were administered by the university's quality assurance unit to the participants at the end of each module in the 2018-19 and 2019-20 academic years.

The questionnaire consisted of three sections, the first referred to the course in general, the second to the teachers, and the third was an open question to make suggestions. The general course evaluations, which were analyzed with Excel©, required respondents to rate the following aspects from 1 to 10: interest in content, recommended and shared materials and documents, relevance for work purposes, administrative support, and global assessment. The teachers' evaluation section also asked participants to rate (from 1 to 10) instructors' clarity, ability to enhance interaction, methodology, and topic expertise. Due to lack of space and to the fact that all the module teachers were rated above 9, this part of the evaluation is not included below.

4.4. Course Evaluation results

In Fig 14 we have compiled the course evaluations for the three EMI teacher training modules given in the 2018-2019 and 2019-2020 academic years. For each module, the participants' feedback from two separate courses was gathered.

	DIGITAL & LINGUISTIC TOOLS		EMI METHODOLOGY RAP		OBSERVATION & PRACTICE		
	2018-19	2019-20	2018-19	2019-20	2018-19	2019-20	Average
STRUCTURE & CONTENTS	**9,17**	**9,65**	**8,73**	**9,00**	**7,78**	**9,00***	**8,89**
Interest in content	9,50	9,67	8,60	8,40	8,22	9,00*	
Recommended Materials and docs.	9,00	9,71	9,00	9,40	7,56	9,00*	
Shared Materials and docs.	9,00	9,57	8,60	9,20	7,56	9,00*	
GLOBAL ASPECTS	**9,20**	**9,72**	**9,02**	**9,15**	**8,02**	**9,33***	**9,07**
Relevance for my work as a teacher	9,57	9,67	8,60	8,80	8,11	10,00*	**9,12**
Satisfaction with admin.	8,60	9,83	9,25	9,25	8,33	9,00*	
Global Evaluation	9,43	9,67	9,20	9,40	7,63	9,00*	
TOTAL AVERAGE	**9,18**	**9,69**	**8,88**	**9,08**	**7,9**	**9,17***	**8,98**
No. of students registered	20	12	17	10	19	7*	
No. of respondents	6	7	5	5	9	1*	
Response Rate	30%	50%	29%	50%	47%	14%*	

Fig 14. Participants' evaluation of EMI training modules.

The response rate was between 30-50% for each of the editions of the courses, except for in the 2019-20 Observation & Practice Module which was answered only by one participant (marked with *) due to the COVID-19 lockdown that took place in March-April 2020.

In as far as 'structure and contents' as well as in 'global aspects,' respondents rated the different items with scores between 7.5-10. The overall average grade for the three modules in both annual editions was 8.89 and the most highly evaluated aspect was 'relevance for my work as a teacher', which obtained an average of 9.12. According to the ICE, these modules received the highest ranking in the final evaluation questionnaires in comparison to the many other courses offered by the institution.

The final open question, which asked participants to give comments and to make suggestions for future module editions, obtained 11 responses. As indicated in Fig 15, the remarks given could be classified as either suggestions or positive evaluations of the courses. The former included proposals to improve specific aspects and to consider future actions, whereas the latter consisted of compliments on the inclusion of pedagogical aspects.

	Suggestions for Improvement	Positive Remarks
Digital and Linguistic Tools for EMI	The on-line activities could have been explained better in class.	The activities were very useful not only for teaching and writing in English, but also teaching in Spanish. It was like getting fresh air to benefit teaching in any language.
	We could try to teach in front of our course teachers and classmates and get feedback from them.	The courses to learn how to teach in English are fantastic. I'd like to congratulate the teachers. Hopefully, we will continue to be offered courses like these for a long time.
	To have another course just on prosody and phonetics so that we could learn more about it.	
	The second session of the first day should be more practical and dynamic. The material could be prepared beforehand so that participants could experiment with them and then in class the more important points could be focused on.	
EMI Methodology RAP		It was about EMI, but it was above all a very interesting course on teaching that could be applied to many contexts.
Observation and Practice	I think the course was weak in its structure	What I liked best is that I was able to attend other teacher's classes in English.

Fig 15. Suggestions for improvement and positive remarks from course evaluation questionnaire.

In general, the responses indicate that the participants were quite satisfied with the contents and the outcomes of the course. Nevertheless, some of their comments pointed to the need to further structure specific contents and clarify the instructions of certain activities. In addition, some showed interest in having more workshops exclusively on pronunciation and prosody. Among the positive remarks, participants highlighted the pedagogical orientation of the courses and the benefits of peer-observation. Interestingly, some of the activities suggested by respondents in the first module, such as observing and performing lessons, were precisely the ones carried out in the second and third modules. This teaching practice was praised as one of the 'best' activities offered.

5. Discussion and Conclusions

Through this case study, we have attempted to explore if the Prof-teaching program at the UA meets the needs of the EMI trainees. This was done by examining the specific university context, gathering secondary data from the different administrative offices involved and primary data from the participants. This exploratory study has permitted us to assess if the program, on the one hand, coincided with the university policies and objectives, and on the other, fulfilled the lecturers' demands. It was found that the following driving forces played an important role in the implementation of this professional development program: (a) the internationalization process within which the UA is immersed that has led to the growth of EMI subjects; (b) the language policy that has supported staff and students in their current and future language training and professional development; (c) the previous EMI teacher training workshops that have served as the springboard for more and longer professional development courses; and (d) the university-wide EMI survey (Morell et al. 2014) that gave proof of the general positive attitude towards EMI and the need for teachers' further training.

The aforementioned key factors of Prof-teaching have resulted in a three-module comprehensive teacher training program that aims to fulfil the academics' digital, linguistic and pedagogical needs. The first module, 'Digital and linguistic tools for EMI', provides lecturers with language strategies and technological tools and resources for the EMI class. The second module, 'EMI: Reflections, awareness and practice' (RAP) reflects on the principles of EMI in HE, highlights the importance of multimodal and interactive competences and requires participants to plan, perform and evaluate EMI lessons. Finally, the third, 'Observation and practice' focuses on participants' observation and performance in their specific fields.

Ever since the implementation of Prof-teaching in 2018, data has been collected from participants and course evaluations to monitor its development and provide useful feedback for further improvement. The results from the survey administered to the course participants and their evaluations of the three modules, indicate that the program seems to fulfill the needs of the lecturers' faced with having to use English as their classroom vehicular language. This appears to be confirmed by the fact that the program consists of developing speaking skills, applying innovative tools and learning to use participant-oriented teaching methodologies, which were precisely what the survey respondents expected from the modules. Nevertheless, there is always room for improvement as we learned from the participants' course evaluation (See Fig 15). Furthermore, this study has its limitations, among which are the small number of survey and course evaluation respondents (n=28 and only one respondent on the final evaluation of the third module) and the fact of relying on participants' perspectives and not on objective data. Therefore, the scarce and subjective results of this case study do not allow us to draw any strong conclusions until we gather further evidence from future Prof-teaching editions. For this reason, we plan not only to continue monitoring and evaluating, but also to study the effects of the training on participants' EMI teaching.

Despite its limitations, one of the implications of this study is that the setting-up of EMI professional development programs with a pedagogical and linguistic approach seem to be the most appropriate to fulfil the needs of both experienced and prospective EMI teachers. In the survey prior to the first module, lecturers without experience in EMI demanded further linguistic training, especially on pronunciation and prosody, whereas those who had already taught in English were more concerned with teaching methodology. In fact, some inexperienced participants (i.e. prospective EMI lecturers) commented that they expected to have an EMI course basically focused on linguistic training. Nevertheless, the final evaluations revealed that the methodological contents of the program had given them the opportunity to

improve their teaching practice and develop strategies that could help them to overcome the difficulties found in an EMI setting. This lends further support to the claim that EMI teachers require a range of competences that go beyond linguistic proficiency (Macaro et al. 2018; Vu and Burns 2014, Gay, Bewick, and French 2020).

As far as the implications for program development, Prof-teaching, much like DOing (Llinares and Mendikoetxea 2020), provides an example of how collaborative work among distinct units of a university can result in the establishment of a comprehensive and well-evaluated EMI teacher training program. In an EMI professional development course plan, it is recommended that a needs analysis be carried out each academic year so that the modules can be adapted to the demands of the times (cf. Gay, Bewick, and French). In the 2020-2021 academic year, for example, due to the pandemic, Prof-teaching had to adapt to the increase of on-line teaching and consequently added to its digital components. Among the suggestions for further improvement, lecturer accreditation has been recommended by several authors (Macaro et al.; Jiménez-Muñoz 2020; Costa 2015; Macaro, Akincioglu, and Han 2019) to help to establish a set of competences needed for prospective EMI lecturers and to foster motivation to register in these professional development courses.

In comparison to other mainstream EMI professional development programs, Prof-teaching differs, for example, in its integration of digital tools. As regards ICT, technology is included in the first module, 'Linguistic and digital tools for EMI teachers', so lecturers get to know different resources that can facilitate their teaching tasks, such as online translators, grammar and writing correction tools, online corpora, technologies for empowerment and participation, or gamification. These are support technologies especially conceived, on the one hand, to help teachers with linguistic issues and, on the other, to provide them with scaffolding strategies to ease their students' learning and acquisition process. These tools, in fact, have proved invaluable during the pandemic and teachers have been able to recognise their value, as pointed out by Borsetto & Bier (2021).

Another distinguishing factor of Prof-teaching is the inclusion of mentoring and peer-observation. The microteaching experience in the second module and the observation and practice of the third allow participants to put into practice what they have learned and to receive feedback from colleagues and instructors. This type of activity was highly valued in the final survey by both inexperienced and experienced lecturers. In the 'EMI RAP' module, participants are involved in constructive evaluations of their peers' micro-teaching sessions (cf. Airey 2020; Gay, Bewick, and French 2020; Rubio-Cuenca and Perea-Barberá 2021), which concerns how teachers engage with the students and how they make use of the modes of communication (i.e. spoken, written, non-verbal materials and body language). In the `Observation and practice' module, trainees are required to observe experienced EMI lecturers from their fields, who have been trained in previous workshops, as explained in section 3.2. Then, the situation is reversed, and the trainees give a lesson in front of these specialists who become their mentors. These content specialists observe the lessons and give practical feedback on their peers' performance. Although other programs include mentoring, such as the 'Program for the support of foreign language lecturing' at the University of Cádiz (Rucio-Cuenca and Perea-Barberá 2021), this is mainly carried out by language specialists. Conversely, in Prof-teaching the final feedback the participants receive does not come from linguists, but from peers of their same field of specialization, who had received prior EMI teacher training.

The results highlight the strength of combining digital, linguistic and pedagogical approaches. Lecturers indicated that ICT could be important scaffolding tools to ease the difficulties associated with using English as a vehicular language. Concerning language,

participants claimed that the main difficulty in an EMI classroom is the low level of English of both students and lecturers. Therefore, practicing phonetics and prosody and becoming more aware of specific classroom discourse to deal with content as well as with intercultural issues may increase their confidence to teach in English. As for pedagogy, they highlighted the necessity to be better trained in specific methodologies for the EMI context. This was especially relevant for participants with previous EMI experience, who ranked pedagogical over linguistic training. Although this program is innovative in certain aspects (i.e. the collaboration of different university units, the mentoring by content specialists, the digital approach), the results are exploratory and limited. Further research must be conducted in the following years to assure its positive outcomes. Not only is there a need to continue monitoring the program, but also to find out if the EMI trainees are, in fact, putting into practice the learned strategies and, in turn, facilitating learning in EMI courses.

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