English-Medium Instruction in Spanish Universities: A Systematic Review

La enseñanza de contenido en inglés en universidades españolas: una revisión sistemática

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Abstract

EMI (English-medium instruction) has mushroomed in higher education institutions (HEIs) in Spain since 2007, when universities joined the European Higher Education Area. Spanish institutions followed the example of their European counterparts, and nowadays most HEIs offer English-taught programmes, aiming to increase their presence in the global market, attract international students and teaching staff, and climb up rankings of higher education. The rapid development of EMI has caught theoretical frameworks and research studies off-guard. Therefore, a systematic review of the investigation on EMI in Spanish higher education institutions will contribute to identifying the most outstanding challenges for stakeholders and HEIs in this particular context. In order to find out the most significant findings in the field, the current paper puts forward a systematic review of studies analysing EMI in Spanish universities in the last decade (2013-2022). For this purpose, studies indexed in three most renowned databases – Web of Science, ERIC, and Scopus – were carefully reviewed. Several clusters of terms associated with EMI were used. The current review provides a detailed picture of the research undertaken on EMI in the Spanish context and the results achieved hitherto, while it will also help to pinpoint which issues or research lines have been neglected.

Resumen

La enseñanza a través del inglés en las universidades españolas se ha extendido desde el año 2007 cuando España se adhirió al Espacio Europeo de Educación Superior. Las universidades españolas siguieron el ejemplo de sus homónimas europeas y, en la actualidad, la mayoría de instituciones ofertan enseñanzas impartidas en inglés con el fin de aumentar su presencia en el ámbito internacional, atraer alumnado y profesorado extranjero y obtener mejores resultados en los rankings de educación superior. La rápida expansión del inglés como medio de instrucción avanza a un ritmo superior que los modelos teóricos y los resultados de la investigación. Por ello, una revisión sistemática de los estudios realizados en el contexto español contribuirá a identificar los retos más acuciantes para el profesorado, el estudiantado y las instituciones en nuestro país. Con el objeto de lograr una mejor comprensión de los avances en el campo, el presente trabajo presenta una revisión sistemática de artículos que analizan los programas bilingües en universidades españolas en la última década (2013-2022). Para ello, se han examinado trabajos indexados en las tres bases de datos de mayor prestigio en la actualidad –Web of Science, ERIC y Scopus– Se consideraron varios clústeres de términos asociados con "Inglés como medio de instrucción en España". Consideramos que el presente trabajo puede contribuir al avance de este campo ya que no existen revisiones sistemáticas previas sobre este tema en España. La presente revisión proporciona una panorámica general sobre la investigación realizada en este ámbito en el contexto español y los resultados obtenidos, al tiempo que identifica los temas y líneas que han sido menos explorados.

Palabras clave: Inglés como medio de instrucción, educación bilingüe, educación superior, España, revisión sistemática.

Introduction

English-Medium Instruction (EMI) is usually defined as "an educational system where content is taught through English in contexts where English is not used as the primary, first, or official language" (Rose & McKinley, 2018, p. 114). EMI has greatly expanded in Higher Education institutions (HEIs) in Spain since 2007, when universities adapted their academic provision to that of the European Higher Education Area (Fortanet-Gómez, 2013). Spanish institutions followed the example of

their European counterparts, and nowadays most HEIs offer English-taught programmes: 415 degrees offered bilingual tracks in Spain in 2018 according to Macaro et al. (2018). A recent study by the British Council (2021) raises this figure to 995 English-taught programmes offered by 77 institutions. EMI is seen as the lynchpin of the internationalization process (Lasagabaster, 2021a) and Spanish universities have deployed bilingual courses to become more visible globally, attract international students and improve their position in education rankings (Dafouz & Smit, 2020). Although some attempts have been made to establish good practices in the design and implementation of EMI (Bazo et al., 2017), there is still no common national policy on the practice or evaluation protocols for bilingual programmes (Lasagabaster, 2021a) and the EMI landscape among Spanish HEIs is heterogeneous (Ramos-García & Pavón, 2018).

The rapid spread of EMI in the last decade follows the trail of primary and secondary education, where Content and Language Integration (CLIL) has bourgeoned, based on linguistic, intercultural and cognitive benefits for learners (Cenoz, 2015; Fernández-Costales, 2023; Lasagabaster & Doiz, 2016). This is especially relevant in Spain, where foreign language competence has traditionally been an issue of great contention (Arnó-Macià & Mancho-Barés, 2015). While the links between CLIL and EMI are noticeable, research (Aguilar, 2017; Lasagabaster & Doiz, 2021; Macaro, 2018) has persistently shown a lack of integration between content and language on EMI courses, which has led most researchers to use EMI[1] instead of CLIL to refer to English-taught programmes at the tertiary level. Although students' English proficiency correlates with their success in EMI (Dimova et al., 2015), research has confirmed that the neglect of language objectives is a critical issue in EMI (Doiz et al., 2019), together with the paucity of specific training for teachers (O'Dowd, 2018) and the necessity for some kind of accreditation framework for EMI lecturers (Macaro et al., 2019).

The fast spread of EMI has outpaced theoretical frameworks and research studies. Therefore, a systematic review of EMI in Spanish universities will contribute to identifying the most prominent challenges for lecturers, students and HEIs. Aiming to achieve a better understanding

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[1] The acronym ICLHE (Integrating Content and Language in Higher Education) is also frequently used.

of the most salient findings, this paper presents a systematic review of studies analysing EMI in Spain between 2013 and 2022.

This paper aims to contribute the field of EMI, as no prior systematic reviews have been documented in Spain, to the extent of our current knowledge. Secondly, the Spanish setting is of interest for the investigation of bilingual education due to its sociolinguistic characteristics: There are 17 Autonomous Communities, 6 of them[2] with co-official languages – Basque, Catalan/Valencian and Galician. Furthermore, bilingual education has been widely embraced in primary and secondary education and there is a large corpus of research evaluating the implementation of CLIL provisions. In this framework, we need to rely on solid research with empirical data that provides an accurate and precise picture of EMI in Spanish universities.

The Current Study

Systematic Review Process

Our review aims to provide a general panorama of the research conducted on EMI in the Spanish context and identify which topics have been overlooked. Our paper extends the current EMI research by answering the following questions:

- ■ What are the main topics analysed by EMI researchers in the Spanish context?

- ■ What does the literature tell us about the perceptions of lecturers and students regarding the implementation of EMI in Spain?

- ■ What are the EMI aspects that future research should address?

The review adhered to the guidelines presented by Macaro et al. (2018, p. 40), namely:

- ■ It was carried out by both reviewers.

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[2] The Basque Country, Navarre, the Balearic Islands, Catalonia, Galicia and the Valencian Community.

■ We used transparent procedures, from conception to final conclusions. An initial protocol was drawn regarding how the review was to be carried out.

■ It only included journal articles through a process of exhaustive and reliable searching.

■ The collaboration between the two reviewers endeavoured to reduce bias as much as possible.

■ The final goal was to write clear messages about the reliability of the review conducted.

Search Strategy and Review Protocol

Various search strategies were employed in order to obtain optimal outcomes. The search strategies underwent refinement through an assessment of the retrieved abstracts and the incorporation or removal of diverse search terms.

The following procedure was followed. Both authors analysed the title and the abstract of each study. Then, the researchers defined the main topics in the literature and agreed on what studies fitted best, following a content analysis strategy. Finally, they read the studies and summarized the main findings. Although each article was initially classified in one of the topics, the in-depth reading led us to move some studies from one topic to another. This procedure was carried out until an agreement between the two reviewers was reached.

Three databases were used to gather the studies being reviewed: Web of Science, ERIC and Scopus. The researchers looked for studies focusing on EMI in the Spanish context. Among others, the following key terms were used: "EMI Spain", "English Medium Instruction Spain", "EMI Spanish universities", "English Medium Instruction Spanish universities", "English instruction Spain", "Bilingual courses Spain", "Bilingual tracks Spain", "CLIL Spanish universities" and "ICLHE Spain". The initial corpus included 62 items, which were reduced to 42 after excluding conference proceedings and studies published before 2013 (as the time restriction applied was 2013-2022). After the first selection, studies that did not focus on EMI in higher education were also excluded (as some papers focused on CLIL in secondary education). The demographics of the final corpus of 33 studies are shown in Table I:

TABLE I. Number of papers published by region of origin

Autonomous community	Papers
Andalusia	4
Basque Country	6
Castilla La Mancha	1
Catalonia	1
Extremadura	1
Madrid	10
Principality of Asturias	2
Valencian Community	1
Cross-wise studies (several communities)	4
No context (theoretical papers)	3
Total	33

Source: Compiled by the authors.

Inclusion and Exclusion Criteria

Only research articles indexed in the three databases and reporting on empirical data were included. The corpus included quantitative, qualitative and mixed-research designs, and the eligible languages for the studies were English and Spanish. No geographical restrictions were applied, as the corpus intended to include studies investigating different settings in Spain. PhD thesis, book chapters, monographs and conference proceedings were discarded. If an article did not provide a quality contribution to the review, it was also discarded.

Findings

The most significant findings are presented below. The studies were categorized in five main topics: 1) Research on students' profile, motivation and satisfaction; 2) teachers' beliefs and perceptions on EMI; 3) student performance in EMI programmes; 4) analyses of classroom discourse; 5) some other topics, which include EMI certification, teacher training and motivation in EMI.

Table 2 presents the number of papers analysed by topic.

TABLE II. Publication frequency by topic

Topic	Papers
Research on students' profile, motivation and satisfaction	5
Teachers' beliefs and perceptions on EMI	13
Student performance in EMI programmes	4
Analysis of classroom discourse	6
Some other topics	5
Total	33

Source: Compiled by the authors.

Research on Students' Profile, Motivation and Satisfaction

In our review, we found several studies devoted to examining the profile of EMI students, their motivation towards English and their satisfaction with the bilingual programme. The characteristics of students enrolled in EMI and their perceptions of the advantages and drawbacks of bilingual programmes provide critical information for the optimisation of EMI.

Madrid and Julius (2020) examined the personal characteristics of students in the bilingual degree in primary education at the Universidad de Granada, which offers 50% of its courses in L2. An open-ended questionnaire was administered to 216 students. The study concluded that participants' language level when entering the EMI programme (B1 for 45% of first-year students) "may cause problems when following class discussions during the first trimester for some first-year students" (Madrid & Julius, 2020, p. 89). This outcome concurs with the results of Rubio Cuenca and Moore (2018), which determined that "the majority of students signing up for bilingual programmes are locals with limited L2 expertise (p. 99). The second finding established that students' motivation to choose the bilingual degree was driven by their desire to have better job prospects. Students' motivation correlated with their satisfaction with the EMI programme, which was rather positive (70% of positive answers). The participants proposed four improvements: i) officially recognize the bilingual section of the degree course beyond a normal teaching degree, ii) offer additional support to students experiencing difficulties in the bilingual track, iii) increase the number of courses taught in English and iv) incorporate native speakers into the programme.

In Extremadura, Delicado-Puerto et al. (2022) assessed students' profile and their satisfaction with the bilingual track in the degree of primary education (50% in the L2). This EMI programme is taught by university lecturers and also by primary education teachers who work as "advisor teachers" under this cooperative model. The research scrutinized 63 first-year students who answered a 23-item survey comprising written questions, multiple-choice questions, classification questions and Likert-scale items. Regarding students' profile, the EMI programme attracted high-performing students, although the authors reject the notion of elitism in EMI since most participants had no prior experience in bilingual education. The students had high expectations of the impact of EMI on their L2 proficiency and expected to see major improvements in their English competence upon graduation. In terms of the evaluation of the EMI programme, student satisfaction was generally high, especially regarding the collaboration of advisor teachers, which is rather exceptional in Spanish EMI settings. Delicado-Puerto et al. accentuate the need to monitor EMI faculty's needs for continuing methodological training.

The attitudes and motivation of students towards learning English in EMI have been investigated by González Ardeo (2016) in a trilingual setting: Data was collected via a 35-item questionnaire from 132 students of engineering enrolled in the EMI programme at the Universidad del País Vasco UPV(EHU), where Spanish, Basque and English are used as tuition languages. The results underlined the positive attitude of students towards learning the foreign language (FL), irrespective of their L1 (Basque or Spanish) and suggested a positive tendency when compared with the outcomes of a prior study carried out 10 years earlier by the author. The data also revealed that students' motivation towards the FL was high, with a mix of intrinsic and extrinsic motivation driving participants to learn English. Since no experimental groups were considered, the research did not estimate the direct impact of EMI.

Mira et al. (2021) approached attitudes towards EMI by focusing on a monolingual context (Madrid). Their study explored the attitudes, motivation and expectations of teachers (125 participants) and students (305 respondents) towards the bilingual programme in engineering studies implemented at the Universidad Politécnica de Madrid. Data was collected through two online surveys examining participants' L2 competence, motivation, attitudes and global satisfaction with EMI. Since only one-third of the students had the required self-perceived L2 competence –B2

or higher, according to the study– to follow the EMI programme, the authors emphasized the importance of official language requirements for enrolling in EMI. As for the teachers' willingness to join the bilingual programme, most respondents were positive, but they also showed some reluctance based on the main challenges EMI poses for teachers: Additional workload, language difficulties, and instructional concerns. In the conclusions, the authors stressed the need for stronger institutional support to reinforce EMI programmes in terms of language courses and methodological training for lecturers.

In general, the satisfaction of students with EMI programmes seems to be positive, and they keep high levels of motivation and good attitudes towards English. However, there is a need for longitudinal studies investigating the long-term effect of EMI on these dimensions. It is also worth noting that the high expectations generated by EMI seem not to be confirmed by the studies analysed in the section entitled "student performance in EMI programmes" below.

EMI Teachers' Beliefs and Perceptions

Teachers' beliefs and perceptions on the implementation of EMI is a burgeoning research line. Within this avenue of enquiry, several topics have arisen in the last decade in Spain. This is the area where a larger number of studies has been found, which may be due to the ease to access their colleagues on the part of EMI researchers.

Fernández-Costales and González-Riaño (2015) scrutinized the degree of satisfaction of 74 lecturers with the EMI programme of the Universidad de Oviedo, launched in 2010. The study took a quantitative perspective in which data was collected through a closed-ended survey. The research identified several improvement proposals concerning teacher training, which was insufficient according to lecturers. Moreover, results accentuated that interdepartmental collaboration might be the key successful EMI roll-out at the tertiary level.

Aguilar (2017) addressed lecturers' perceptions towards EMI or CLIL in their classes. The study scrutinised the opinion of 41 lecturers through a mixed research design that included a questionnaire and semi-structured interviews. When asked if they followed CLIL or EMI in their subjects, lecturers confirmed their lack of interest in approaching language

issues in their classes, acknowledging they followed EMI and not a CLIL approach in their subjects. Moreover, results confirmed that participants did not reflect on their teaching practice and they assigned L2 proficiency as being the key factor in EMI.

Pérez-Cañado (2020) analysed the perceptions of EMI lecturers in Andalusia. Her study investigated 153 lecturers involved in EMI, intending to evaluate their training needs and define a teacher-training proposal. The investigation relied on a mixed design with closed-ended questions and semi-structured interviews. The most significant results agreed with those reported in other settings: EMI lecturers were not sufficiently informed about the theoretical underpinnings of EMI and the information on the institutional policy had not been adequately transferred. The study underlined methodology as a focal point in EMI, since student-centred approaches may promote content learning in English.

Qualitative studies have also been conducted. Barrios and López (2019) analysed the perception of EMI lecturers at the Universidad de Málaga. They interviewed eight lecturers to elicit their interpretations of the first stages of a bilingual programme, of themselves as teachers in the programme, and of the overall set up. All lecturers taught at the bilingual track of the degree in primary education (which offered 35% subjects in English). Following a thematic content analysis, the researchers found there was an overall positive perception of the EMI programme, while lecturers confirmed content learning was not affected by L2 instruction. However, some challenges could be determined: Most notably, an increased workload for teachers and insufficient L2 competence on the part of students and lecturers to express complex meanings. It is worth mentioning that the study also found that lecturers denied the existing differences between EMI and monolingual teaching, and there was no conceptualization of the integration of language and content.

Roothooft (2019) investigated EMI teachers' voices at different Spanish universities located in Aragón, Catalonia and Navarre. Her study inspected the views of 59 lecturers from humanities and STEM who completed narrative frames. The results concur with prior research (Aguilar, 2017), as teachers acknowledged they focused on content and not on language when teaching in English. The study found some differences in opinion between STEM and humanities regarding their teaching style and L1 use: More teachers in humanities perceived they had changed their teaching

as a result of delivering their courses in English and they were also more likely to use the L1 in EMI classes.

Following a qualitative research design, Alfaro-Tanco et al. (2020) explored the effects of transitioning to EMI on lecturers teaching operation management courses (degree in business) in 13 universities. Using an online questionnaire, data was gathered from 20 lecturers. The study confirmed that lecturers were not initially enthusiastic about having to teach in English, but their perceptions changed soon after engaging in the EMI programme, reporting generally positive perceptions of their experience. Among the shortcomings, the authors highlighted the lack of incentives to teach in English, the need to use tools and strategies to improve the interaction with students and the amount of time needed to prepare lectures in the L2. Moreover, this study emphasized the importance of investing time in training seminars for EMI lecturers and promoting the exchange of experiences among teachers in these programmes.

Paradoxically, research also confirmed that despite their refusal to teach English (Aguilar, 2017; Barrios & López, 2019), EMI lecturers do provide corrective feedback in their lessons. Mancho-Barés and Aguilar (2020) contrasted the assessment practices of 14 EMI lecturers at the Universidad de Lleida with their expressed beliefs on language teaching. The researchers concluded that 80% of participants provided corrective feedback to learners' oral and written productions. The authors of the study emphasised the need for collaboration between content and language lecturers, as EMI teachers would benefit from the support of language experts that focus on linguistic improvement proposals.

Nieto and Fernández Barrera (2021) used semi-structured interviews to analyse the perceptions of three groups of EMI teachers at the Universidad de Castilla La Mancha (UCLM): EMI practitioners, lecturers interested in EMI and teachers from the Department of Modern Languages with expertise in bilingual education. The bilingual programme of the UCLM is more recent than in other Spanish HEIs, which may explain why teachers are required to hold only a B2 certificate in English (while most Spanish universities demand a C1) and enjoy L2 training courses but receive no methodological training on EMI. The authors took an ethnographic approach to analyse the perception of 20 lecturers. The data included informal discussions, EMI teaching resources and institutional guidelines and documents about the implementation of EMI. Interestingly, the analysis highlighted how most teachers did not want to be "left

behind" in the implementation of the EMI programme. Participants also felt teaching conditions in EMI were better, as they worked with more motivated students (higher L2 proficiency). The authors also provided some recommendations for universities and policymakers: i) the design of comprehensive teacher training plans offering accreditation to enter EMI and in-service methodology courses; and ii) the approval of a multilingual language policy with specific protocols for lecturer recruitment.

Teacher collaboration, or team teaching, is a topical avenue of enquiry in EMI, which emphasises language aspects in content-subjects delivered in the L2 (Lasagabaster, 2021b). Our corpus includes several studies that specifically investigate collaborative experiences in EMI programmes in Spain.

Martín del Pozo (2017) analyses the role of English for Specific Purposes (ESP) and English for Academic Purposes (EAP) as two fields that can cement the foundations of EMI practice at the tertiary level. In particular, this theoretical study claims that ESP and EAP precede the implementation of EMI in higher education and that experience harvested in the former can provide effective teaching practices and guidelines in tertiary education. Martín del Pozo advocates that research on academic listening comprehension could reinforce not only the design of learning materials but also the training of EMI lecturers to be more skilled in their lessons.

Lasagabaster (2018) claims that teacher collaboration in EMI has been overlooked and requires further studies to analyse the potential of team teaching in English-taught programmes. This study underscores how team teaching promotes reflective practice on EMI lecturers' pedagogy and knowledge and states that the few studies available consistently report favourable outcomes on undergraduates' learning and provides a motivational boost to content teachers since it helps to overcome the feeling of lack of support and loneliness in the classroom. Lasagabaster also emphasises the need to delve into issues such as lecturers' beliefs about team collaboration, its longitudinal impact on language and content learning and whether team teaching boosts both teachers' and students' motivation.

It is interesting to note that only one action research study was identified in our review. At the Universidad de Málaga, Griffith (2019) analysed eight experienced lecturers who were supported by a language specialist when they started to teach in English. Participants were encouraged to reflect on classroom interaction, while learners' outcomes and perceptions

were also analysed. Griffith concludes action research helped EMI lecturers to build on their expertise and enrich "the shared group experience as a whole" (p. 74). The study also reported no differences in the final evaluation between English and L1 courses and that students' perception of the EMI experience was positive.

In conclusion, research into teachers' beliefs and perceptions of EMI programmes in Spain identifies key elements regarding their methodological approach to EMI. First, as mentioned above, the distinction between CLIL and EMI is pivotal as research shows that EMI (rather than CLIL) is the approach followed by lecturers when delivering their classes. As concluded by several studies (Barrios & López, 2019; Pérez-Cañado, 2020), there is a lack of interest in language issues on the part of EMI lecturers and the integration of content and language is not being appropriately tackled. Second, EMI lecturers demand additional support from their universities (i.e., specific training to improve their methodological and communicative skills to be more competent in EMI settings). In addition, other challenges identified by teachers are an increased workload and the lack of specific and consistent language policies in Spanish HEIs.

Finally, the lack of collaboration between content lecturers and language experts is identified as a shortcoming of EMI by most teachers, who claim that interdepartmental cooperation should be stronger in bilingual programmes. The studies reviewed here confirm that teacher collaboration can contribute to making EMI teachers more reflective, as it is considered to be a key component in the success of EMI programmes.

Student Performance in EMI Programmes

Surprisingly, the assessment of student performance in EMI programmes in the Spanish scenario has received scant attention. Our corpus includes only four papers devoted to the analysis of learners' achievements in bilingual programmes. The first two studies focused on content learning, whereas the other two analysed English proficiency development of EMI students.

Dafouz et al. (2014) compared an EMI group and a Spanish-medium group of first-year students who were enrolled on a Business Administration degree at the Universidad Complutense de Madrid. The participants were matched on university entrance exam scores and their

results in three subjects (Accounting, Finance and History) contrasted at the end of the term. The results did not show any significant difference, which led the authors to conclude that EMI did not have any detrimental effect on content learning. Nonetheless, the authors underscored that the results had to be treated with caution because of the limited size of data, the reduced access to classroom practices and its analysis of a single HEI.

In a second study, Arco-Tirado et al. (2018) analysed the academic performance of students enrolled in the bilingual programme at the Universidad de Granada. This observational study estimated the causal effects of EMI on students' Grade Point Average by using a Counterfactual Impact Evaluation that considers two potential results of an intervention programme on learners' performance: Students' academic performance as a result of having participated in an EMI programme and students' performance had they not participated in the bilingual track. The research inspected a sample of 1288 undergraduates – including the experimental and the control group – enrolled in the degree of primary education. The empirical evidence showed that there is a cost in the academic performance of the bilingual program analysed. Among the potential confounding factors, Arco-Tirado et al. pointed to the self-selection in EMI programmes (families with higher socio-economic status "persuading their kids to register on the bilingual group", p. 86), the gap between students' L2 command developed in high school and required in EMI and students' motivation levels from being accepted or rejected in the bilingual programme.

We will focus now on the two studies on L2 development. Hernández-Nanclares and Jiménez-Muñoz (2017) investigated learners' language performance in EMI. Their study examined written assignments and video recordings of students in two first-year modules in business administration at the Universidad de Oviedo through one academic year. Participants' L2 performance was compared with descriptors of the Common European Framework of Reference for the Languages (CEFRL) to achieve content-related assignments. The study confirmed that learners' progress was less than half of a CEFRL level in one year. Considering that the framework estimates it takes 200 tuition hours to progress from one level to the next, the results were rather positive. However, determinant factors – such as the time of exposure to the L2 outside the classroom, whether students attended private lessons or not, etc. – were not estimated.

Following language learning in EMI programmes, Vidal and Jarvis (2020) examined essays written by 195 first- and third-year undergraduates at the Universidad Autónoma de Madrid. The objective was to estimate the impact of studying through English on students' written competence (focusing on their proficiency, essay quality and lexical diversity). The researchers used the Oxford Placement test, the CEFRL writing scale and three measures of lexical diversity. The most salient finding showed a significant improvement in L2 proficiency and essay quality, but no statistically significant differences regarding lexical diversity.

The analysis of students in EMI programmes allows us to draw several conclusions. Since the potential impact of EMI on content learning and improvement of English proficiency are two of the main concerns of stakeholders (Lasagabaster, 2022), there is a need for further research with experimental or quasi-experimental studies that provide empirical evidence that may help to optimize bilingual tracks by policy-makers and university authorities. Following this, the research available relies on small-case studies and we did not find articles analysing large samples (except for Arco-Tirado et al., 2018) or crosswise studies investigating more than one university. The paucity of studies focusing on students' performance is conspicuous by its absence, especially the lack of research analysing content learning in EMI. In fact, the two studies (Arco-Tirado et al., 2018; Dafouz et al. 2014) on content learning hitherto carried out reveal contradictory results, whereas the two on English proficiency (Hernández-Nanclares & Jiménez-Muñoz; 2017; Vidal and Jarvis, 2020) show improvement but less than stakeholders would expect. The aforementioned lack of integration of content and language may lie behind these poor results.

Analysis of Classroom Discourse, Interaction and Language Use

As previously mentioned, attention to language aspects in EMI is of paramount importance (even though most teachers neglect the language dimension in English-taught programmes). Therefore, the analysis of oral exchanges has drawn EMI researchers' attention, as it may shed light on student-teacher interaction and the way lecturers introduce new content and express themselves.

One of the first lines to be investigated was the assessment of stakeholders on the role of the different languages in contact in EMI

multilingual contexts. In the Basque Autonomous Community, Doiz et al. (2014) scrutinised the perceptions of teachers, students, and administration personnel on EMI and multilingualism at the UPV, an officially bilingual HEI in Basque and Spanish. 648 participants answered a survey comprising closed- and open-ended items intended to reveal their insights into EMI from a multilingual perspective, as well as their language use in the EMI classroom. Doiz et al. claimed some flexibility and that lecturers in EMI should focus on fluency and appropriate L2 use, instead of concentrating on grammar accuracy and sticking to strict British or American standards. Moreover, the authors of the study also stressed that code-switching – or translanguaging – should be promoted in EMI settings, following research supporting the benefits of this practice for language and cultural development.

In this line, Muguruza et al. (2020) investigated the flexible language policy established by an EMI lecturer also at the UPV/EHU. The reaction of students towards a planned pedagogical translanguaging strategy was quite positive, as it eased their following of classes and the learning of concepts. Concurrently, learners felt comfortable with the option of choosing freely among their three languages (Basque, Spanish and English).

The pedagogical functions of code-switching have been specifically investigated by Sánchez-García (2018a), who examined eight lectures taught by two teachers in two subjects of the degree of business administration at the Universidad Complutense (Madrid). Sánchez-García took a qualitative research design in her analysis of 671 minutes contrasting two subjects in which English was used as a lingua franca, as many students did not have Spanish as their L1 (one course consisted of 40% foreign students and the other 80%). The study concludes that code-switching from English into Spanish was a common practice and responds to four main pedagogical strategies (by frequency): i) to construct knowledge, ii) to manage the classroom, iii) to express personal/affective meaning, and iv) to establish interpersonal relations. Although code-switching may be triggered by the lecturer's teaching style, Sánchez-García underlines the linguistic difficulties in the L2 and the teacher's deliberate choice of the L1 to guarantee that students learn keywords in both languages.

The use of the L1 has also been addressed from the perspective of teachers' attitudes towards multilingualism in the classroom. Breeze and Roothooft (2021) report on empirical evidence from narrative

frames administered to 60 EMI lecturers at five HEIs in northern Spain to investigate their attitudes to L1 use in EMI classes. The most salient finding was that half of the participants believed L1 use was not acceptable in EMI classes, while most of the other lecturers only allowed using the L1 in very specific conditions (namely, to repair communication hampers, to foster empathy outside the classroom, or to refer to local phenomena).

Other studies by Sánchez-García (2018b, 2020) focused on how questions triggered student-teacher interaction by comparing EMI and Spanish-medium interaction lessons delivered by two teachers in the degree in business administration at the Universidad Complutense de Madrid. The study did not report differences between questions in the two languages, hence the author concluded that individual teaching style was more determining. The only exception had to do with the managerial mode, as both teachers were more concerned about lecture organization in EMI in their attempts to check students' comprehension. The analysis of the data suggested that most questions asked by the lecturers went unanswered, resulting in a lack of interaction. In this framework, the author proposes three lines of action: i) Provide students with more time to respond, ii) use more effective, open-ended questions and avoid narrowing down opportunities for lengthier discourse; and iii) ask more cognitively demanding questions.

Dafouz et al. (2018) measured how knowledge structures are developed in oral disciplinary reasoning episodes (DREs) – i.e., when there was a knowledge gap or epistemic problem and questions were consequently asked for clarification. In addition, the study concentrated on language related episodes (LREs) – i.e., instances in which speakers talk about the language they are producing. The researchers video-recorded four lectures delivered by two lecturers in the degree of economics and business administration at the Universidad Complutense de Madrid. DREs (91) prevailed over LREs (27), with the latter having a simpler structure due to their narrower focus on language issues. The conclusions point to the need for language specialists to equip content lecturers with a language-sensitive EMI pedagogy focused on the structure of disciplinary oral conventions.

The analysis of classroom discourse and teachers' strategies in EMI confirms that lecturers tend to resort to their mother tongue only under specific circumstances (e.g., classroom management, building

interpersonal relations, etc.), as many of them do not find this strategy acceptable. In fact, most of the studies reviewed above reveal that EMI teachers are reluctant to include the L1 in their classes. The only exception is the study by Muguruza et al. (2020), where students found that pedagogical translanguaging helped them to succeed in their EMI course. These results clearly indicate that the literature on the positive effects of translanguaging does not reach EMI teachers, a deficit that could only be overcome by introducing the use of the L1 as a topic in the much needed professional development courses.

In any case, since most HEIs do not have clear language policies and guidelines on code-switching and translanguaging, further research examining this issue is needed, not only from the point of view of lecturers but also incorporating the students' perspective.

Finally, conversational analysis contributes to a better understanding of the pedagogical dynamics of EMI lessons and to grasp an accurate portrait of the language teaching components required in EMI methodology courses. Again, teacher collaboration is a key strategy, since language experts can promote a more reflective approach on the part of content lecturers in their classroom discursive practices (Doiz & Lasagabaster, 2022; Sánchez-García, 2018b, 2020).

Other Research Topics on EMI in the Spanish Context

In this section, several topics to which individualised attention has been paid will be examined, namely the accreditation of EMI lecturers, teacher training, identity and motivation in EMI.

The certification of language competence of lecturers working in EMI is critical for the success of English-taught programmes. However, the number of universities that have developed some form of accreditation system for teachers is very limited and very few examples can be found in the literature (Bazo et al. 2017).

O'Dowd's (2018) transversal study surveyed 70 HEIs in 11 countries in Europe, including 22 Spanish universities. The research found that accreditation procedures and EMI training in Spain were very heterogeneous. While most universities offered training programmes in communicative skills in the L2, almost half of the HEIs did not offer any methodological training.

In our corpus, only one study specifically approached the certification of EMI lecturers in Spain. The study by Macaro et al. (2019) concluded that lecturers strongly sustained the need for EMI teaching certification and teaching-quality assurance. A survey was administered to 151 lecturers in Spanish HEIs to examine participants' beliefs on the skills required to teach in EMI programmes and whether it is possible and desirable to accredit those competences. The research found that less than 50% of the lecturers examined were offered training courses to engage in EMI programmes. Furthermore, 33% of participants did not know whether their universities provided training support and professional development in EMI. The study also found that, although lecturers believe some sort of certification is needed, most expressed their concern about a language-focused form of accreditation that neglects the pedagogical dimension. Furthermore, there was diversity in their perception of the body that should award such certification.

We found only one study analysing the perceptions of lecturers who have completed a professional development course in a Spanish university. Morell (2020) approached the mini lesson format in EMI, where teachers attended a 20-hour EMI training workshop with an interactive and multimodal approach. After completing the course, participants were more favourably disposed towards lectures in which more questions were posed. Lecturers who made greater use of verbal and non-verbal communication skills – i.e., writing, speech, non-verbal materials and body language – were regarded more positively.

The impact of EMI on two key dimensions in language learning – identity and motivation – has also attracted scholarly attention. Dafouz (2018) draws on two theoretical conceptualizations – Norton's (2016) investment theory and Dafouz and Smit's (2020) road mapping – in her assessment of the design of teacher education programmes. The study analysed the perceptions of 41 lecturers in Madrid through an online questionnaire focusing on pedagogy, ideology and identity issues, which are frequently neglected in teacher training programmes in favour of language proficiency. Lecturers (mostly, junior ones) perceived EMI as an opportunity to promote their academic careers and to enhance their linguistic capital.

The perceptions of lecturers and students regarding EMI programmes have also been approached regarding the characterization of the L2 motivational self-system (Dörnyei, 2009). The study by Doiz and Lasagabaster

(2018) inspected the insights of 15 EMI students and three lecturers through six focus groups at the UPV/EHU. The researchers determined that the notions of identity, investment and imagined communities (Norton, 2016) aligned with the experience of students and lecturers and with the components of the L2 motivational self-system. Doiz and Lasagabaster concluded that EMI works as a catalyser for lecturers' multilingual identity and upholds their international self-awareness, although significant additional investment is indispensable to teaching content in English at tertiary education.

Conclusions

The first research question focused on the main topics analysed by EMI researchers in Spain. Our review has shown that most of the studies on EMI (19 out of 33) investigated stakeholders' beliefs about the advantages and disadvantages that the introduction of EMI in higher education institutions entails. The perception of lecturers and students on implementing bilingual programmes has been of great interest since 2013, and this should not come as a surprise, as the consideration of the opinions of the stakeholders is vital for the success of EMI experiences. Not much research has been devoted to students' performance in EMI, which is why further research is sorely needed. The impact of EMI on both content and language learning needs to be looked into so that the potential weaknesses of the programmes can be appropriately tackled. In the past few years, other topics such as the cooperation between content and language lecturers and the analysis of classroom oral discourse, interaction and language use have also sparked increasing interest.

Second, we pondered if stakeholders were satisfied with the implementation of EMI programmes. Our analysis showed that students are mostly satisfied with their participation in EMI programmes, while their expectations on how bilingual degrees will impact their L2 command and prospective careers are rather high. Learners often demand more subjects in the L2, despite some struggle with language difficulties when they enter the EMI programme. As for lecturers, although the perceptions are also generally positive, they often feel isolated and left to their own devices to deal with teaching in a FL, and thus demand more support

from their institutions. Our review clearly emphasises the need for training programmes that not only address language issues but also provide specific methodological guidelines for lecturers. Several studies clearly show that interdepartmental collaboration and the cooperation of content and language lecturers has been neglected in EMI programmes, and cooperative initiatives should be on the HEI radar in Spain. The few experiences reported in the literature also show that lecturers are able to overcome insecurities and increase their degree of satisfaction with their teaching when they can collaborate with other lecturers. Boundaries between disciplines make cooperative experiences challenging, as there are many difficulties in subject design, implementation and assessment. However, whenever the initial strains are eased, the collaboration pays off.

As for the third research question, our review has identified several overlooked topics and research lines that deserve further scholarly attention. First, little research has been conducted to confirm whether the positive results found at pre-university level regarding language development and content learning in CLIL are also produced at the tertiary level (Lasagabaster, 2022). Strikingly, only four studies in our corpus deal with content learning or students' L2 achievement in EMI programmes. Second, there is a need to carry out comparative studies regarding different specialisations. Except for Dafouz et al. (2018) and Fernández-Costales and González-Riaño (2015), the remaining studies focused on a single specialisation, with an overwhelming majority of articles analysing EMI programmes in the degree of primary education. A third conclusion relates to the limited sample of lecturers in the studies under scrutiny, a flaw that should be overcome by including a larger number of participants in future studies. Furthermore, longitudinal studies analysing the cumulative effect of EMI programmes in terms of learners' and teachers' motivation, attitudes towards the FL, and impact on L2 competence would be most welcomed. Other pivotal lines worth investigating include the "Englishization" process in Spain (and possible tensions in multilingual settings), the requirements for EMI teachers, the teacher-student interaction, discourse strategies in bilingual programmes and, overall, the teaching pedagogy displayed in EMI.

Finally, we would like to add a caveat, as the current review is limited to three specific databases, while overlooking other journals and research outputs such as books and book chapters. Complementary sources –i.e.,

experts' opinions, relevant websites and grey literature– have been not examined and the corpus relies entirely on indexed papers. Also, it has to be noted that the current analysis does not follow a protocol (e.g., Campbell) to select the corpus, as it happens in other systematic reviews (see, for instance, Rubio et al., 2019). Despite these limitations, we feel that the studies analysed here provide the reader with a comprehensive panorama of the current state of affairs about EMI in Spain.

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