

EMI lecturers' practices in correcting English

Resources for language teaching?

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Research on English-medium instruction (EMI) has pointed to lecturers' refusal to teach or correct English. This study seeks empirical evidence to investigate the extent to which content lecturers' assessment practices align with their expressed beliefs regarding language teaching. Drawing on three types of data – a questionnaire, interviews and students' exams – we aimed at finding and exploring EMI lecturers' written corrective feedback (WCF) as part of language assessment practices. Findings ~~point to content lecturers whose refusal to teach English is repeatedly manifested in the interviews, but whose actual~~ practices show evidence of some provision of language-related feedback. These findings are discussed against university language education policy. A *gate opener* lecturer profile is identified whose corrective feedback creates opportunities for correctly using disciplinary English.

Keywords: English-medium instruction, written corrective feedback, assessment, teacher attitudes

1. Introduction

Academic interest in English-medium instruction (EMI) in ~~higher~~ education has gained momentum according to the latest surveys on the worldwide spread of EMI (Ackerley, Guarda & Helm, 2017; Fenton-Smith, Humphreys & Walkinshaw, 2017; Macaro, Curle, Pun, An & Dearden, 2018; Tsou & Kao, 2017). The implementation of EMI at university is generally articulated in universities' language education policy (LEP) (Arnó-Macià & Mancho-Barés, 2015). Traditionally, de jure LEP is written on official documentation, while non-declared LEP is evidenced in de facto language teaching practices (Shohamy, 2006). Hence, research into LEP needs to be informed by insights into declared LEP as well as grassroots practice of language teaching and assessment. Taking this overarching view of

LEP as a point of reference, this study aims at profiling EMI lecturers as de jure LEP stakeholders in general, and as sporadic language teaching resources in particular, by contrasting their opinions vis-à-vis their self-reported and actual language assessment practices.

One important issue arising from EMI practice is lecturers' explicit reluctance to take on a language teacher role and how this may affect their language teaching practices and eventually their individual de facto LEP, i.e. the extent to which they endorse the language policy at their institution. Essentially, lecturers are reported to claim an exclusive interest in content knowledge instruction while paying little attention to teaching disciplinary language in general (Aguilar, 2017; Drljač Margić & Vodopija-Krstanović, 2017; Hyland, 2013; Wilkinson, 2013). Two main reasons accounting for this refusal are, first, that the teaching process is not only mediated through language, but also and perhaps, more importantly, through other meaning-making resources – i.e. mathematics, not language, is believed to be the main meaning-making resource in physics (Airey, 2012; Dearden & Macaro, 2016; Macaro, Akincioglu & Dearden, 2016) – and second, that language teaching is not part of their acknowledged teaching duties (Airey, 2012; Hyland, 2013). Other studies also report on lecturers' lack of confidence when providing corrective feedback on students' production in English (Airey, 2011, 2012). So as to further this issue, in this study the construct of *written corrective feedback* (WCF) will be embraced to examine EMI lecturers' practices that somehow aim toward language development (Bitchener & Storch, 2016; Hyland, 2013).

This study builds on previous research where LEP was examined from the interpretive policy analysis framework (Mancho-Barés & Aguilar-Pérez, 2016), and is set in a context of a university in Spain. Key findings of this study dealt with students' linguistic benefits resulting from taking a course in English and also lecturers' self-reported challenges of teaching through the medium of English:

These lecturers think that their students practice and develop their professional communication skills and fluency in their lessons (...). In their view, an important benefit of EMI for students is increased confidence in communicating in English. However, lecturers refuse to teach English and assertively state they do not teach, evaluate or correct English because it is not their job.

(Mancho-Barés & Aguilar-Pérez, 2016, p.112)

With these findings in mind, this paper aims to: (a) elucidate what kind of linguistic feedback EMI lecturers provide when assessing exams by identifying episodes of WCF; and (b) develop an understanding of the tensions generated by EMI lecturers' WCF practice and their outspoken refusal to teach and correct English. The paper will begin with a discussion of WCF as part of assessment in section two, followed by the contextual and methodological details of the study, and

finally the findings and the discussion of the two research questions and the general contributions of this study.

2. Background

EMI lecturers' beliefs about their English competence and their impact on their teaching practices have been researched in recent years (Aguilar-Pérez & Arnó-Macià, 2020; Airey, 2012; Ball & Lindsay, 2013; Fenton-Smith et al., 2017; Guarda & Helm, 2017; McCambridge & Saarinen, 2015). More closely related to the European context at hand, studies have further shown how non-native southern European lecturers' competence in English is closely interwoven with lecturers' classroom discourse and interaction. In their systematic review, Macaro et al. (2018) summarize studies about EMI lecturer English competence from Italy (Guarda & Helm, 2017; Pulcini & Campagna, 2015), among others, pointing to the fact that lecturers mostly report that their level of English is "inadequate, [...] leading to possible incorrect language learning on the part of the students" (p. 54). Among EMI lecturers' difficulties, their inability to express ideas accurately, comprehensively and spontaneously (Guarda & Helm, 2017; Taztl, 2011) have been pointed out. These difficulties, like lecturers' "inability to detect students' linguistic limitations that impede their learning and progress in EMI classrooms" (Tsui, 2017, p. 165) and students' insufficient academic language proficiency essential to cope with university lectures on entry level (Walker, 2010) are not exclusive of the European context but also seem to be pervasively present in EMI in Asia (Fenton-Smith et al., 2017; Tsou & Kao, 2017). In the same vein, Macaro et al. (2018) mention studies yielding similar results about lecturers' insufficient competence in countries like Vietnam, Turkey or Denmark. As for Spain, EMI lecturers' teaching difficulties also deal with language competence, specifically with lack of fluency in English (Doiz, Lasagabaster & Sierra, 2013; Lasagabaster, 2015), or simply with a low command of English, arising from their self-reported lack of experience in EMI, and possibly an underestimation of their own communicative capabilities in English (Fortanet-Gómez, 2012). Research has also identified other needs than language proficiency, like that of changing their methodological strategies (Klaassen, 2008). It is not surprising, then, that many studies on EMI (Breeze & Sancho, 2017; Chen, 2017; Dearden, 2015; Guarda & Helm, 2016, 2017; Tsui, 2017) posit that EMI lecturers do not only need to be proficient in English, but also deploy readiness and preparedness to change their teaching skills in order to, first, ensure clarity and comprehension as well as assimilation of stylistic and discursive conventions in students' target professional community; second, encourage interaction and last promote critical thinking skills. In view of

this reality, some researchers in applied linguistics advocate for the need of “making language and genres more salient while teaching content” (Sancho & Breeze, 2017, p. 11; Dearden, 2018). While only in a minority of institutions, like Taiwanese Law schools, are EMI lecturers expected to teach English *and* content (Chou, 2017, p. 142), in the vast majority of cases described in the European context EMI lecturers openly refuse to teach English because they regard themselves as subject specialists, not language teachers, and feel underqualified to correct their students’ English production (Aguilar, 2017; Airey, 2012).

2.1 EMI lecturers and corrective feedback

Against this backdrop, correcting students’ English linguistic production seems worth examining because, whilst EMI lecturers’ beliefs and self-reported teaching practices have been largely analyzed, there is a dearth of research into their actual practices and the extent to which they align with their voiced opinions (i.e. refusal to teach language). More specifically, content instructors’ provision of written feedback in student assignments is an under-researched topic, perhaps due to the difficulties in accessing student assessment data for confidentiality reasons (Dafouz & Camacho-Miñano, 2016). A relevant work for our study is Hyland’s article (2013), where he contends that content teacher written feedback in students’ assignments – if this feedback reaches them – sensitizes students about their strengths and weaknesses and helps them acquire both disciplinary content and effective writing conventions. In fact, both content-related and language-based feedback, provided by content teachers in Hyland’s study (Table 1, p. 245), are aimed at helping students write more adequate texts according to disciplinary conventions. Also, the purpose of that feedback is problematized. Despite the fact that feedback provision is institutionally encouraged, in some courses “there was no systematic mechanism for supporting students through feedback on written [assignment] work” (p. 248). However, Hyland notes that content lecturers view instructor-student face-to-face interaction as a way of scaffolding students’ development of their writing skills.

While rather absent in EMI research, studies on WCF given by foreign language teachers abound. In fact, Bitchener and Storch make the case for teachers’ corrective feedback in the written medium for student L2 development. They focus on WCF (instead of oral feedback), as the written feedback may help learners “develop their explicit, conscious knowledge of the L2 in the early stages of development” (2016, p. 5). In their book, Bitchener and Storch feature three main types of feedback (direct, indirect and metalinguistic, as proposed in Ellis (2009), discuss their efficiency and review relevant studies on WCF (e.g. Evans, Hartshorn & Tuioti, 2010; Ferris, 2014; Hyland, 2011; Montgomery & Baker,

2007). What these studies have in common is, on the one hand, that participants providing WCF are profiled as language teachers well-versed in English writing instruction in Higher Education Institutions (HEI) and, on the other, that WCF is generally provided in preliminary, intermediate and also final drafts of students' compositions.

2.2 Corrective feedback and assessment

Closely related to the provision of WCF is the oft-quoted distinction between summative assessment and formative assessment, which we will briefly refer to here. Following Harrington (2011), while the former is used for the purpose of measuring student learning for institutional accreditation, the latter supports students' learning development by providing them with feedback on their learning progress, e.g. giving WCF on preliminary or intermediate drafts of students writing. From a critical view, Price, Handley, Millar & O'Donovan's paper (2010) on assessment feedback reappraises the provision of the feedback given to students, especially when the purpose of feedback is not only to inform about their errors but, most importantly, to help them understand the nature of their errors to "develop their understanding [of the discipline]" (p.279), similar to the content instructors' objective in Hyland's study. In this respect, different assessment techniques have been proposed like the *formative summative assessment* (FSA) technique, which has arisen as common ground between both types of assessment, and consists basically in going over the exams in class with students so that they get feedback about their (incorrect) understanding of concepts (Wininger, 2005). In fact, Wininger reports on two studies where he implemented the FSA method, resulting in higher exam grades among FSA students over the control group in subsequent tests; FSA students also showed positive attitudes towards the FSA method as it "helped them clarify and understand missed exam items" (2005, p.165).

Exam re-grading policy, institutionally regulated in the Spanish HE system (*Real Decreto* 1791/2010 in Boletín Oficial del Estado, 2010), arises as a face-to-face feedback-providing situation. Known as *revisión de examen* in Spanish, the Royal Decree sets out students' right to view their exams and assignments at a scheduled day and time and to receive timely oral explanations on the grading (i.e. feedback) from the examiner(s). Transposing this assessment practice within EMI lecturer provision of WCF for exam re-grading purposes, one may expect EMI lecturers to write direct, indirect or metalinguistic corrective feedback on student exams as an attempt not only to justify the mark but, most relevantly, to draw students' attention to both mislearned content, or non-attainment of accepted disciplinary knowledge (termed *content-related WCF*), and language mistakes, according to

lecturers' notion of correctness (termed *language-related WCF*). Therefore, WFC emerges as one possible backbone of the construct of language-in-content integration of those CLIL-type EMI settings having a dual focus on content and on language (see Airey, 2016 for a continuum between language-focused and content-focused courses; Costa, 2012 and 2016 for descriptions of content and language integration; Moncada-Comas & Block, 2019). Bearing this in mind, our study seeks to bring WCF to the fore within the context of exam re-grading practice carried out by EMI lecturers in order to unearth any discrepancies between lecturers' expressed beliefs and their actual practices as regards their language teaching role. In this way, de facto LEP, in general, and EMI lecturers' beliefs and practices about disciplinary language teaching and correction, in particular, are foregrounded.

3. The study

3.1 Context

This study presents an exploratory study of LEP at a middle-sized university in north-eastern Spain. The institution is located in a bilingual context where, according to institutional figures for the year 2016–17, Catalan and Spanish were the languages of instruction in more than 90% of the undergraduate subjects, leaving EMI very much underrepresented in degrees, at approximately 6%.¹

There are two policy documents from the university under study dealing with de jure LEP. In fact, the Internationalization Plan 2012–16 (University of Lleida, 2012; POI henceforward), suggests increasing EMI so as to promote the integration of international students and to boost local students' competence in English for professional purposes (2012, p. 9, Article A.A.1.1.). Moreover, the Multilingualism Plan 2013–2018 (University of Lleida, 2013; POM henceforward) proposes a progressive implementation of EMI at BA/BSc level, and aims at multilingualism in Catalan/Spanish and English at MA/MSc level (2013, p. 16, Article 4.2.1). This last recommendation is also present in the LEP from other Spanish universities (Doiz, Lasagabaster & Sierra, 2011). Moreover, the POM explicitly states that “the linguistic policy mostly lies in sufficient or specific linguistic knowledge among the members of the community [...]. While possessing or achieving sufficient or specific language knowledge is, in the first instance, everyone's personal responsibility, the university should make resources available so that the university community

1. These figures are published by the Language Unit of the University. Data come from the study guides written by instructors of each subject (<http://www.udl.cat/ca/udl/xifres/> accessed 27 March, 2018).

members can improve and widen their linguistic knowledge” (2013, the POM’s article 4.2, p. 15; [our translation]). We understand *knowledge of languages* as language competence, defined by Baker as “the inner, mental representation of language, something latent rather than overt” (2006, p. 24). While language learning autonomy is one of the tenets of the HEI language policy, the claim that language learning resources could also be human resources (i.e. EMI lecturers) is open to debate, as *resources* is left without further specification in the POM. However, the first interpretation of *resources* usually has to do with material resources.

In terms of exam re-grading policy, the university under study issued the Regulation of Evaluation (University of Lleida, 2014), in which the student’s right to request for re-grading of exams in front of the examiner is acknowledged. However, no mention is made as to the nature of the teachers’ explanations given to students, apart from the objective of re-grading the exam under consideration, if necessary.

3.2 Research questions

The previous sections set the stage for an examination of the implementation of EMI in a context where the University’s LEP ambiguously proposes EMI lecturers as human resources, thanks to whom students’ linguistic proficiency can be improved. Yet, EMI lecturers refuse to identify themselves as human resources of language teaching in their disciplines because it is not their job (~~as mentioned above~~). Bearing the previous comments in mind, this study aims to answer the following research questions:

1. Do EMI lecturers at the studied university provide corrective feedback? If so, of what kind?
2. Do EMI lecturers’ expressed viewpoints with regard to language teaching and correction align with their actual teaching practices?

3.3 Methodology and instruments

Following Dimova, Hultgren and Jensen’s (2015) proposal, our study considers opinions on EMI as a baseline to complement other types of data derived from EMI teachers’ assessment practices. Therefore, this study draws on a mixed-methods analysis, following an exploratory sequential research design (Guest, MacQueen and Namey, 2012). The sequentiality is applied by way of quantitative data collection (i.e. survey, see below), which precedes the qualitative data collection (i.e. interviews and exams, see below). Of the five purposes that Riazi and Candlin (2014) mention for mixed-methods research, our analysis belongs to the

expansion type in that the depth of the quantitative analysis is extended by exploring participants' beliefs and practices on EMI and by discussing with them examples of their teaching practices.

Accordingly, to answer the two research questions three sources of data were established: the first data type is quantitative in nature; it was a questionnaire designed to elicit informants' opinions on issues about language policy and language teaching.² The questionnaire was sent to 59 in-service lecturers (in 2015–16) who had participated in EMI training courses at the University and 14 questionnaires were returned answered (23% of response rate). For the purpose of this study, we picked the questions (in section two of the questionnaire) reporting on their teaching practices in EMI:

5. What are the main language difficulties that your students in your classes experience? (4-item closed question – see Table 4 for the items).
7. As you are not teaching courses that focus on the acquisition of English, do you correct your students' language errors? (5-item closed question – see Table 3 for the wording of the 5 items) Comments:

In question #5, lecturers could select more than one item, including the “other” option. In question #7, respondents could optionally provide comments to the item selected. In section one of the questionnaire we also chose questions #5 and #8 because they yielded information about their foreign language background and self-assessed English proficiency.

The second source of data was qualitative-oriented. It consisted of semi-structured interviews with four EMI lecturers who had been ~~survey~~ respondents. These interviews were aimed to yield supporting data by use of internal validity, that is to say, findings from EMI lecturers' interviews and assessment practices (i.e. feedback given in exams, see below) inform on the results obtained by the analysis of ~~survey~~-derived data (Briggs, Coleman & Morrison, 2012; Cohen, Manion & Morrison, 2001). A small-scale purposive sampling technique was used to build up the sample. In fact, four EMI lecturers were selected because they were already participating in an ethnographic-based research project at the time of writing this article. Being a non-probabilistic sample, then, the four EMI

2. The questionnaire was an adapted version of one designed by Anne Pauwles (2015, personal communication). Other questions elicited on lecturers' language biography, their access conditions to teach EMI, the institutional support for EMI, their variety of English used, the presence of native speakers of English in the classes, the difficulty in understanding non-native EMI students, and the positioning of HE as more competitive because of EMI, and the possible detrimental effects of EMI on local language use.

lecturers do not represent the wider universe of EMI lecturers at the University under study; ~~instead, they~~ represent their own views.

Specifically, two sets of individual interviews were planned. The first round of interviews aimed at eliciting EMI lecturers' linguistic and academic autobiographies, their opinions on university LEP and their assessment practices in the subjects taught. In this study, we have selected those transcript excerpts in the interviews where lecturers were prompted to comment on their EMI teaching and assessment. Because of the findings in the first round of interviews, a second round was necessary to focus on the written feedback given, where lecturers were asked particularly about their exam re-grading practice. The interviewees preferred to use their L1 in the interviews and all the excerpts in this article have been translated and transcribed using orthographic transcription conventions, given the focus was not interaction but content.

The last source of data was written exams produced by students enrolled in ~~any of~~ the four selected lecturers' courses during the year 2017–18. With exams previously anonymized by lecturers and consent granted by students, 97 exams from the four EMI instructors' subjects were collected. In all four subjects, there were mid-semester and end semester exams (with the exception of Ana – see Table 2 below for reference – who taught only half of the semester and therefore we only collected those mid-semester exams she graded). For analysis purposes, only questions where language emerges as the main meaning-making semiotic resource were selected (see Appendix 1 for exam questions). Excerpts of these written exams were chosen as evidence to be cross-checked with the results in the questionnaire and the interviews. We focused on written exams and not on students' assignments that had been corrected by their lecturers, because written exams would produce evidence of spontaneous student writing without any filter or help, as it could have been the case in home-written assignments where students could have web-based resources (online grammars, dictionaries, translating platforms, etc.) at hand. This way, student exam writing can possibly provide evidence for the research questions on the type of WCF provided by lecturers.

A sequential analytical methodology was implemented to the data collected. On the one hand, the results of the closed questions #5 and #7 from the questionnaire yielded quantitative information about student language difficulties, as to whether or not EMI lecturers correct language mistakes, and to whether or not they penalize the exam mark for these errors. On the other hand, following Guest, MacQueen and Namey (2012) and Saldaña (2016), an explanatory approach was taken to analyze the open-ended question (#7) from the questionnaire, the interview transcripts, and the data derived from WCF provided in exams. Specifically, interview transcripts, WCF data and the answers to the open-ended question (#7) in the questionnaire were segmented according to pre-existing codes stemming

from the closed-ended questions: “English language teaching or not”, “correcting errors or not” and “penalizing errors or not”, “type of error corrected”. Next, codes were tabulated into categories (e.g. *penalizing errors in exams, not correcting errors due to their content teacher identity*). Subsequently, the codes and categories generated allowed researchers to play out a fine-grained thematic analysis whereby information about EMI participants’ viewpoints and practices on language teaching and language correction was obtained.

3.4 Participants

The participants were accessed by means of the database provided by the University’s Professional Development Unit, which consisted of 59 in-service lecturers who had participated in at least one EMI training course. As stated above, ten males and four females ($n=14$), average age 46, answered the questionnaire. Lecturers (ten of whom were PhD) declared teaching mostly STEM (Science, Technology, Engineering and Mathematics) undergraduate disciplines through English, had a teaching experience from 5 to 23 years, and from 1 to 11 years of EMI teaching experience.

All but one of the fourteen lecturers³ reported having studied English in the Spanish school system for 6 years on average, which means they studied English during all their secondary education – from 4 to 6 years, depending on the educational curriculum (according to question 5 in the biographical section). In terms of English competence lecturers mostly self-rated their level as upper intermediate or higher (according to the CEFRL) in question 8 (*Using the CEFRL scale, how would you rate your proficiency in English?*):

Table 1. Self-assessed lecturers’ English competence

CEFRL level	B1	B2	C1	C2
Percentage	7%	36%	36%	21%

As stated above, four out of the fourteen EMI lecturers agreed to be interviewed and provided their exams for research purposes. In Table 2, their pseudonym and self-reported English competence level are specified. Lecturers’ names were changed responding to ethical considerations, but their gender representation was kept.

3. This respondent left the question unanswered.

Table 2. Participants' pseudonyms and English competence level

<i>Pseudonym</i>	<i>English competence</i>
Anna	C1 level
Laura	C2 level
Albert	C1 level
Isabel	C1 level

4. Findings

Findings relative to the three types of data, i.e. questionnaire, interviews and exams, will be described and contrasted. Specifically, here we analyze whether lecturers provide corrective feedback, the nature of this feedback and the extent to which, when grading, lecturers penalize their students on the grounds of language.

4.1 Analysis of surveys

Most lecturers in the questionnaire claim to provide corrective feedback in assessment contexts.

Hence, almost 80% of the lecturers reported providing feedback, although the provision of WCF is not a common instructional practice among STEM university lecturers, regardless of language of instruction, as Isabel asserts in her interview:

- (1) "They [EMI students] were very surprised in the first year because they said that they had never had an exam or a written report returned with feedback."

Analysis of the data from the questionnaire shows that three out of fourteen lecturers (22%) claim in Q7 that they do not provide WCF to their students. Their answers in the questionnaire to the open answer "why not?" attest to a teaching practice aiming at content learning, and not at language learning: "The focus in my class is content" (lecturer 4); "the class was not an English class; it was a class of [content subject]" (lecturer 5), aligning with their content teacher identity.

4.2 Analysis of interviews

When these results are contrasted with the interviews, in-depth information about lecturers' motivations and underlying beliefs is accrued. Despite answering positively on the provision of WCF, while being interviewed, Laura elaborated

Table 3. Analysis of Q7 from the questionnaire

<i>Correcting errors Yes/No</i>	<i>Percentage (n=number of times each item was selected by EMI lecturers)</i>	
No: why not?	22%	(n = 3)
Only in written work and I do not subtract marks		(n = 3)
(Added as a comment) Only in oral work and I do not subtract marks	57%	(n = 1)
Both in spoken and written work and I do not subtract marks		(n = 4)*
Yes (78%)		
Both in spoken and written work and subtract marks if the errors impede understanding		(n = 2)
(Added as a comment) Both in spoken and written work and subtract marks in written work if the errors impede understanding	21%	(n = 1)
But only in written work and I subtract marks if the errors impede understanding	0%	(n = 0)

* One respondent marked two contradictory options: *No* and *Yes, but only in written work and I do not subtract mark*. Moreover, this lecturer (Anna) wrote the following comment to justify her negative answer: “For me communication is essential. As long as the message gets through, I’m not too fussy about being correct. In spoken language I correct only very basic vocabulary related to our field, such as sow, cow, vaccine, etc.” Because of these two answers, then, the respondent’s answer was typified as *Yes, both in spoken and written work and I do not subtract marks*. ~~Therefore, the number of EMI lecturers in the questionnaire providing corrective feedback amounts to four.~~

further on the lack of linguistic/communication objectives in STEM subjects, as the pedagogical focus was on professional skills:

- (2) **Laura:** [Students’] writing in English is worse, if you want, than in Catalan or Spanish. But do not expect our students to be highly skilful in writing in Catalan [nor in] Spanish, because they do not get instruction about that [writing] [...] They [Students] are taught how to hold an animal [...] not how to write or communicate [...]

Interviewer: Right.

Laura: They don’t know how to.

Interviewer: nor even to communicate what they are seeing. In other words, many concepts, but very little is done on [how to] transmit such concepts.

Laura: Yes. Much effort is done regarding [teaching] terminology in [XXX] and being able to use the exact words for each symptom etc. but not on writ-

ing. You [i.e. students] have the words but you do not know how to communicate them.

When interviewed, another lecturer (Albert) clearly justifies his lack of WCF on language in terms of his disciplinary allocation and his content-focused EMI pedagogy:

- (3) “My departure point is the assumption that I am not a linguist, am I? as you [interviewers] probably are [...] In my students' materials [i.e. exams] that I correct, my main objective is content, the [engineering] procedures, whether or not they are able to solve [a problem]. If students have written something (inaudible chunk) telegraphically in that exam, or if they have wrongly written a past tense, these are not important.”

4.3 Analysis of corrective feedback

Apart from the questionnaire, we also analyzed the feedback that four EMI lecturers provided on their students' written exams, as shown in Figures 1–6 below. Each figure is a scanned reproduction of students' answers with the feedback given by the lecturer (see Appendix 1 for the exam questions). EMI lecturers provide both content-related and language-related WCF. For both cases, overt error correction techniques were used to locate the source of WCF: crossing out, circling, underscoring, superscribing or underscribing. Figure 1 qualifies as an instance of direct, content-related WFC, as the feedback provided is to demonstrate that the question has not been answered appropriately. In other words, the student has demonstrated partial knowledge of what PCR reactions are.

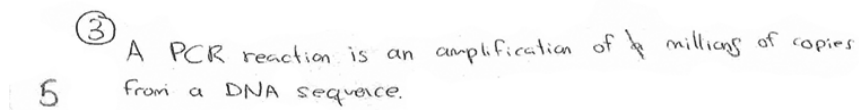


Figure 1. Laura's feedback

Figure 2 also shows evidence of a direct, content-related WFC, given that the student has not provided all the necessary content needed to answer the question. That is, although the student has briefly explained the procedure following an enumeration format, the lecturer's WCF focuses on the absence of equations, which are expected in the answer, as can be deduced from the feedback written by the teacher.

Figure 3 below serves as an example of direct, content-related WCF because the argumentation written by the student is not based only on *thermodynamic*

1. Calculate stoichiometric the molar fraction and the mass flows rates
 2. Energy balance in boiler
 3. Suppose T_3 for find out h_3
 4. When it find h_3 iterating, it trust energy balance
 5. And then we can find the new T_3 .
- OK, but it takes equation 1!

Figure 2. Albert's feedback

reasons; the lecturer also provides direct language-related WCF on morphology-syntax, that is, wrong word order of the negative non-finite subordinate clause after *recommend*.

$$Z = \frac{P_c}{P_e} = \frac{2}{0,22} = 9,09 < 10 \rightarrow \text{I recomend } \times \text{ not to change from}$$

simple to double compression system.

Only thermodynamic reasons!

Figure 3. Isabel's feedback

Figure 4 illustrates direct content-related and language-related WCF as the misuse of the singular "bacterium" (instead of "bacteria", as corrected below by the teacher) shows evidence of partial knowledge of how epidemic diseases affect

humans (not by just one bacterium, but by bacteria). Interestingly, not all mistakes are corrected (e.g. “transferred”, “consist”).

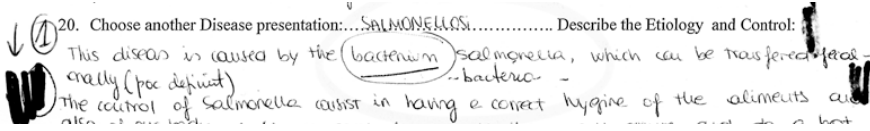


Figure 4. Anna’s feedback

Figure 5 shows evidence of direct language-related WCF connected basically to morpho-syntax (“consist to make” instead of “of making”, “to study” instead of “for study”, or “for set up” instead of “to set up”) or word order (the Spanish acronym ADN is corrected into DNA).

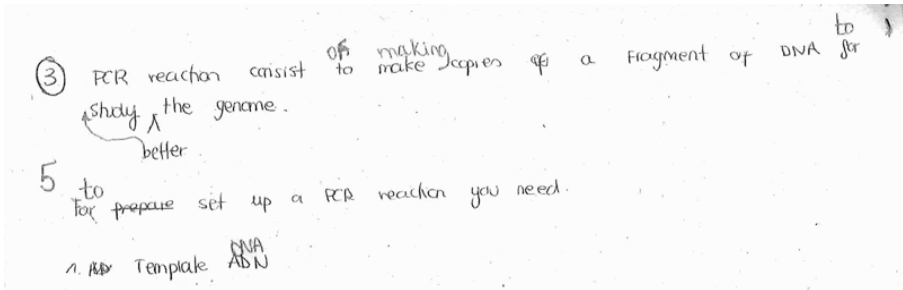


Figure 5. Laura’s feedback

Finally, Figure 6 is an example of indirect language-related WCF on lexis (the student has written “ambient”, the L1 word for *environment* and the lecturer underlines the word). Interestingly enough, although lecturers claim not to pay attention to language issues, lecturers do provide WCF both on content and on language in the exams. This is consistent with the results in Table 3.

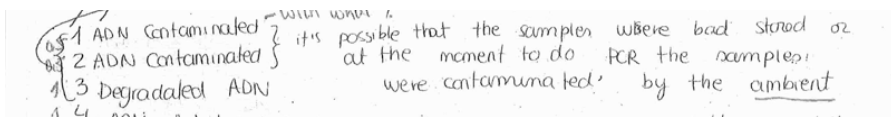


Figure 6. Laura’s feedback

As can be seen, all six figures are instances of content-related and language-based WCF. By focussing on language-based feedback, the examples above exemplify cases of wrongly used terminology and inappropriate syntactic configuration. These cases align with the answers in Q5 of the questionnaire (Table 4),

which asked lecturers about the types of language difficulties that EMI students experience (see Section 3.3 for the wording of the question):

Table 4. Lecturers' appraisals of students' difficulties (lecturers could choose several options)

<i>Difficulty</i>	<i>Percentage (n=number of times selected)</i>
Wrong word choice	36% (n=9)
Grammatical elements: e.g. word order, tense, modality	32% (n=8)
Appropriate conventions for essay writing (style)	20% (n=5)
Other: Oral communication (oral presentations)	12% (n=3)

Given the fact that disciplinary terms are a key aspect in scientific discourse, it comes as no surprise that lecturers identify *wrong word choice* as their students' main language difficulty. We interpret that *grammar* has been ranked highly as a language difficulty because lecturers were themselves language learners at school (as obtained in the biographical foreign language background section in the questionnaire) at a time when more synthetic approaches to language teaching, usually employing a lexical, grammatical or notional-functional syllabus (Long, 2015), were followed; EMI lecturers' past experience may have made them particularly aware of such aspects. It can also be contended that genre-oriented difficulties are not so highly ranked because of lecturers' lack of awareness of genre conventions and style in their discipline, as other studies have pointed out (Mancho-Barés & Arnó-Macià, 2017). As to oral communication, an issue mentioned by three lecturers, no comments were made regarding the sort of communicative/linguistic obstacles lecturers had in mind because they did not make them explicit.

4.4 Analysis of penalization of mistakes

We also delved into the presence/absence of a penalization policy for language errors. According to the results in Table 3, it was also found that no penalization policy for linguistic errors was applied by 57% of those lecturers, confirming that they corrected errors, while 21% did penalize. These results were contrasted with the reason given in the interviews for the presence or absence of penalization policy. From these interviews, it was possible to find out that penalization was hardly ever applied in exams but was more usual in assignments. On the one hand, the four interviewed lecturers consistently reported applying no penalization policy when students make linguistic errors in exams, as Albert explains:

- (4) “In this exam, in which they [students] are nervous, I somehow understand, that language is not a priority in this exam, I tend, unless it [the student answer] is completely non-understandable, not to penalize them [students].”

Albert's view is highly consistent in the questionnaire, where he notes he penalizes when comprehension is affected. Laura also reports using no penalization policy to language errors and providing WCF on the exams, consistently with her replies in the questionnaire, so as to help students notice language incorrectness in the context of her exam re-grading sessions in both her mid-semester and end semester exams. Laura normally brings her mid-term exams to class, and during the break students can look at them and ask questions on the mistakes made; she complements this session with a general commentary on mislearned content – resonating with Wininger's (2005) model of formative summative assessment. In the same class session, she also revises grammar and terminological misuses, as in the case of the final subordinators:

- (5) “I tell them, for instance, that about final [subordination] “to do”, “to assess”, “for doing”, “for assessing”, this way of using PER [Catalan for TO/FOR] and translate it literally I tell them: “watch out, many of you are using it wrong”. And I remind students about it on the blackboard [the grammar rules]. Then it is not a question of insisting too much on it [on grammar] but on things which are important and easy to remember.”

Laura shows their final exams in exam re-grading appointments to those students willing to look over the exam: although students' interest lies in the final mark (i.e. possible mistakes in summing up partial points of questions), Laura's objective in exam re-grading appointments is to make students aware of their language mistakes, especially terminology which students have not learnt despite having heard/read it repeatedly, as in the case of *environment*, which was written as Catalan *ambient* (cf. Figure 6).

- (6) **Interviewer:** so if these students came to re-grade their exam and you showed them what they've written, you'd tell them that pro, eeh *proofs* is not spelt

Laura: yes

Interviewer: *proves* but *tests*?

Laura: yes

Interviewer: and also that instead of *ambient* they have to write *environment*

Laura: yes

Interviewer: and this, do you think it's going to help them? These these comments =

Laura: = yes (↔) to learn terminology particularly when they're very specific things and in stressful situations like the exam re-grading situation (↔) you remember these things much better.

Interviewer: but they're more focused on the grade, aren't they?

Laura: yes but they don't try to (...) but but (↔) *tch ambient* for instance (↔) and *environment* they're words they know and I use them a thousand times (...).

On the other hand, though, some EMI lecturers state they correct students' language errors in home-written assignments, because with more time "students can revise it better" as argued by Albert in the interview. He specifies his penalization policy criteria, his grading percentage for content vs language and his understanding of formal aspects of writing in English in the following terms:

- (7) "I think 70% of the grade is assigned to content aspects and 30% to formal aspects. But these formal aspects can refer not only to writing but also, I don't know, to whether the cover page is well written [...] to whether [students] have written a table of contents [...] These are formal aspects of the assignment, right? Obviously later [I also check that] there are no errors in the English language [...] This is part of the formality of the product, isn't it? whether or not it [the report] reads well."

Albert seems to apply textual coherence and degrees of formality criteria when assessing written assignments, but not in exams. Other criteria are also followed by Isabel as stated in her interview: "grammar accuracy, spelling, and a more general level of English." She claims that in written assignments which are done at home, such as lab reports, "the part of the grade [related to English] is 1 point or 1 point and a half [out of 10]. And it is here where I try to reward or penalize their level of English". Yet, in exams she says: "I don't go into details, like whether you've written the apostrophe or not. I feel bad about the mistake. I correct it. But I don't penalize in exams." Her criteria when determining the grading criteria in her EMI classes do not differ from criteria she uses when she lectures in Catalan (L1).

Thus, instruction in these STEM degrees is content-learning oriented according to these lecturers, and disciplinary communication does not seem to be an overtly manifest teaching objective. During the interview, Isabel elaborated this issue further:

- (8) Isabel: "If I have to teach all my content and also, I have to give them [students] time to talk in English, to write in English [...] [and] and I have to correct their English ... well I don't know. [...]"

However, later in the interview, Isabel tries to find a balance between her identity as a content lecturer who does not penalize for language inappropriateness. She

says she encourages her students to use English for disciplinary communication, explaining her decision not to penalize as follows:

- (9) **Interviewer:** [...] Therefore, maybe, you don't regard yourself as a teacher of English, but as a teacher of content communication in English.

Isabel: Yes. That, yes. And I always tell them informally: "here take the chance on English. That is, I am not a teacher of Eng[lish], well, therefore I am not here to correct you, am I? in detail" [...]

It can be contended from these opinions that lecturers do not take on any responsibility for teaching English and for evaluating or correcting English because it is not their academic responsibility, which would appear to be a common attitude among EMI lecturers (Aguilar, 2017; Airey, 2012; Hyland, 2013). Moreover, according to these responses, lecturers stand in some contradiction when they highlight their focus is content, yet they provide non-penalizing, language-related WCF in exams. Likewise, our findings corroborate other studies in that EMI lecturers do not typify their subject as a language-and-content integrated subject on the premise that language/communication and disciplinary knowledge can be separated. However, recent studies have tried to overcome such an epistemological divide by developing overarching heuristics whereby language/communication is inherent to, a defining element of, content while knowledge is constructed by means of language and communication, apart from other semiotic systems, such as numeracy (see Airey, 2012 for mathematics vs. language to represent physics knowledge; Hyland, 2013).

5. Discussion

The previous section has brought to light the existing tension between EMI lecturers' beliefs vis-à-vis their self-reported and actual language assessment practice. Concerning the first research question (*Do EMI lecturers at the studied university provide corrective feedback? If so, of what kind?*), we found that almost 80% of the EMI lecturers do provide corrective feedback to students' oral/written production, despite asserting in the interviews and the open question in the survey that they do not teach English or assess exams on the basis of English appropriateness. Figures 1–6 evidence direct and indirect content- and language-related WCF. The instances of language-related feedback confirm the students' main difficulties in English according to their lecturers: wrong word choice and grammatical elements (see Table 4). Additionally, when de facto practices in exam re-grading situations are analyzed, language-related WCF in students' exams emerges as (sporadic) linguistic formative assessment practices, especially

regarding terminological misuses but also grammatical aspects. Yet, a student can benefit from such WCF as long as (s)he individually decides to exercise his/her right to an appointment to go over the exam, and as long as (s)he has a lecturer, like Laura, who revises mislearned content and language appropriateness of exams in class. We cannot ignore that this is an unsystematic practice of formative assessment for language development: for students to be provided with a principled and effective system of corrective feedback as well as with opportunities to develop their academic and specialized language skills, EMI alone does not suffice. We argue content lecturers could fall back on the collaboration with language experts, usually ESP teachers in Higher Education, who in turn could focus on the linguistic aspects that need improvement or elaboration. Strictly speaking, for the instances of WCF identified in this study to be formative assessment, students should be required to demonstrate they have learned from this feedback on subsequent occasions, in another exam or assignment, which is not the case here. The extent to which WCF exerts a short-term impact on students' language development and students' self-perceived linguistic development as an outcome of this sporadic WCF remain yet unexplored and merit further study.

As for the second research question (*Do EMI lecturers' expressed viewpoints with regard to language teaching and correction align with their actual teaching practices?*), we note how our EMI lecturers align with the view that their teaching goal is not language but content, as already documented in other studies (Aguilar, 2017; Airey, 2012; Drljač Margić & Vodopija-Krstanović, 2017; Hyland, 2013; Wilkinson, 2013). However, our EMI lecturers' practices show some awareness towards language appropriateness; in fact, the identified type of formative assessment in the shape of content-related *and* language-related WCF is an instructional method (unsystematically) practiced by the lecturers interviewed. This type of formative assessment is understood as an overarching construct, which includes assessment episodes in which EMI lecturers focus on language by providing WCF on how to accurately communicate disciplinary content. Anna, in particular, is convinced that her students develop their communication skills in her EMI classroom. Moreover, according to the answers in the questionnaire, 57% of lecturers' language assessment practices encompass the provision of corrective feedback without subtracting marks for mistakes, as mentioned above (Table 3). These reported assessment practices are interpreted as *de facto* individual language policies aiming at overcoming students' difficulties in disciplinary communication. In other words, to the extent that they help students notice mistakes of technically and linguistically inadequate uses of lexis in the context of exam regrading, these four lecturers evidence some focus on disciplinary language and can be claimed to act as human resources for the development of disciplinary communication in English – as ambiguously stated in the institutional LEP. It is

along these lines that we therefore suggest that these lecturers covertly take on the role of *gate openers* who, as fluent users of disciplinary discourse in English, are sometimes willing to grant access in their subjects to their students' development of disciplinary English.

Thus, we put forward that the specific profile of the four EMI lecturers observed in further detail in this study is that of the *gate opener* lecturer with a developed sensitivity towards language-related errors students should not make. The profile that emerges is depicted as a lecturer whose self-declared English language level is upper-intermediate or higher (>B2 according to the CEFRL). Another instructional trait of these lecturer profiles is that while their teaching is basically content-focused, their written corrective feedback also has a learning purpose, even if as an unprincipled and haphazard formative assessment strategy. Lastly, these lecturers do not generally implement any penalizing policy for lexical and grammatical errors made by students in exams because they essentially focus on content learning, though they report penalizing errors on formal and language misuses in home-written assignments. The *gate opener* facet portrayed in this study, though, should not be overplayed because the WCF provision is minimal, a practice that reasonably results from content lecturers' disciplinary expertise and acknowledged teaching duty, and which aligns with a content lecturer's opinion quoted in Airey: "But maybe it's not our job to correct their work like a 'traditional' English teacher. Maybe it's enough if we provide the students with the typical discourse language, e.g. technical vocabulary and specialized expressions" (2011, p. 47).

6. Conclusions

This study makes several significant contributions to the study of EMI practices. First of all, methodologically speaking, a mixed methods approach has allowed the contrast of different sources of data. The construct content *and* language-related WCF emerges as one possible backbone for the language-in-content integration in EMI due to the twofold objective EMI lecturers have: the need to improve their students' learning process first and foremost of content but also of disciplinary discourse with linguistic appropriateness (mostly in terms of technical and specialized vocabulary). A word of caution is needed regarding the possible "Hawthorne effect" (Landsberger, 1958) in the WCF collected: by participating in our research over a semester, EMI lecturers may have overprovided WCF. Hence, more data needs to be collected over a sustained period of time so as to make data representative of usual, albeit unsystematic, EMI language-related corrective feedback practices.

Secondly, the detailed analysis of the four lecturers' practices provides us with insights into the de facto language policy. Thus, we have been able to find EMI lecturers whose corrective feedback provision reflects their concern for some linguistic and formal correctness and whose exam re-grading practices hint at some unprincipled formative assessment purposes. In other words, these professional characteristics reveal a *gate opener* profile of lecturers who voluntarily grants access to professional English to students, creating opportunities for using disciplinary English in his/her classes. These lecturers are aware of the role of communication in successful learning and some are ready to draw red lines based on textual coherence, grammatical and lexical accuracy and oral fluency.

Thirdly, in this study we have developed an understanding of the motivations of many EMI lecturers when they overtly deny any accountability for teaching English. Our findings hint at a rather covert instructional practice that entails correcting students' linguistic mistakes, in a haphazard and unprincipled way, and mostly concerning specialized vocabulary. A clear implication of these occasional practices, to date somehow hidden and quite undocumented, touches upon institutional policies that have tried to replace ESP (English for Specific Purposes) or EAP (English for Academic Purposes) courses with EMI. While probably *requiring* lecturers to give language-related feedback would be counterproductive, these findings help us unveil this lecturers' practice in correcting English. Incidentally, collaboration between ESP/ EAP and EMI lecturers could counterbalance (Lyster, 2007) content-based and form-focused approaches "to promote shifts in learners' attentional focus" (p.134) in complementary ways. Another implication derived from this study is whether *all* students get access to the feedback that content lecturers already produce and what actions can be undertaken so that this feedback reaches all of them in a meaningful and structured way and students benefit from their content teachers' fluent disciplinary discourse.

In brief, our findings single out the idea that EMI indeed has the potential of acting as a disciplinary language-learning driver but not as a substitute for academic and specialized language teaching. Given their sense of belonging to a disciplinary community, which is not the community of foreign language teachers (or 'applied linguists', in Albert's words) (Hyland, 2012), it is not surprising that EMI lecturers disagree with their university's LEP when they state they do not generally correct their students' production in English, and do not want to become *human resources* that help students with their foreign language development. However, their de facto language instructional practices reveal a somehow different methodology that, as a matter of fact, indirectly aligns with LEP; they do so by providing language-related WCF without penalizing for errors unless language impedes content understanding. A tentative recommendation for policymakers points to a curriculum design based on the pedagogical coordination

between EMI and ESP/EAP instruction so that ESP/EAP courses are offered either before (as preparatory) or during a given EMI course, ensuring that all students receive feedback from their EMI lecturers' professional and accurate disciplinary discourse as well as meaningful and structured linguistic feedback and teaching from their language experts. This collaboration could be envisioned and implemented in different ways, in the shape of tandem teaching or adjunct classes, for instance (Cots & Clemente, 2011; Trent, 2010). In this way, EMI can emerge as effective instruction for students to learn content and disciplinary communication in English, both of which are key to becoming a good professional.

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Appendix

In Table 5 information is provided about the source of each figure above:


Table 5. Distribution of Figures 1–6, lecturers and exam questions

Figure	Lecturer	Question being answered
1	Laura	Question 3: “What is a [xxx] reaction?”
2	Albert	Question 2e: “Explain briefly the procedure you should have followed to calculate the [...] temperature [...], if not given by the problem.
3	Isabel	Question 2b. Compare this value with the one for the one compression system [...] would you recommend the factory to change [...]? Justify your answer.
4	Anna	Question 20 reproduced on Figure 4
5	Laura	Question 3: “What is a [xxx] reaction?”
6	Laura	Question 2: “What can you say regarding the samples (1 to 10) in the following agarose gels?”

Resum

La recerca en ensenyament amb l'anglès com a llengua vehicular ha identificat la reticència dels professors de contingut a ensenyar o corregir l'anglès. Aquest estudi persegueix identificar evidència empírica per tal d'investigar fins a quin punt les pràctiques de correcció dels professors de contingut que ensenyen en anglès coincideixen amb les seves creences en relació a l'ensenyament de llengua. Basant-nos en tres tipus de dades – un qüestionari, entrevistes i exàmens d'estudiants – el nostre objectiu és trobar i explorar correccions escrites que es puguin tipificar com a pràctiques d'avaluació de llengua. Els resultats indiquen que la negativa dels professors de contingut a ensenyar anglès queda repetidament palesa en les entrevistes, mentre que la seva pràctica real demostra que sí que proporcionen *feedback* relacionats amb llengua. Aquesta troballa s'analitza en el marc de la política lingüística de la universitat. Identifiquem un perfil de professor que anomenem 'facilitador' (*gate opener*), les correccions del qual creen oportunitats per tal que els estudiants emprin l'anglès disciplinari correctament.

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