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## ENGLISH WRITING COMPETENCE AND EMI PERFORMANCE: STUDENT AND EXPERT PERCEPTIONS OF ACADEMIC WRITING IN EMI

### Abstract

University English Medium Instruction (EMI) programmes place heavy demands on students' writing skills, yet academic writing support is rarely provided. This paper investigates the English academic writing competences of a group of Economics students taking EMI courses at a Spanish university from a triple perspective: we compare how these students rated their own writing competence, and how content teachers and language experts rated the texts they produced. After examining whether the students' self-assessment correlated with the content grade awarded by the course teacher and with evaluations of their work by language experts, we found major discrepancies between students' self-reported confidence in their writing ability and their actual performance as assessed independently. Importantly, the quality of students' writing was significantly correlated with their overall content score. Our conclusions suggest that students would benefit from academic writing training if it could be tailored to meet specific needs that arise in the university context. Content teachers should collaborate with language experts to design writing programmes focused on course requirements.

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### Key words

academic writing, English Medium Instruction, economics and business, writing assessment, self-assessment.

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## 1. INTRODUCTION

Even though the future of language is uncertain, today we can affirm that English is a global language (Crystal, 2009). It is equally clear that English has long been the dominant language in Business, and this trend is unlikely to change in the foreseeable future (Kankaanranta & Louhiala-Salminen, 2013; Neeley, 2012). It thus comes as no surprise that the spread of English Medium Instruction (EMI), which has dramatically changed European higher education over the last 20 years, has been particularly important from its early stages onwards in the area of Business Management and Economics (Wächter & Maiworm, 2014). Today, it is routinely expected that Schools with business-related degrees will provide English-taught courses for exchange students, and that options in English ranging from specific courses to entire degree programmes will be available at most universities.

Despite the inexorable advance of EMI, the transitional phase has proved complex in many countries, since the move to English poses a strain on the language competences of teachers and students alike. Although there has been considerable concern about English competence and training among the teachers (Breeze & Sancho Guinda, 2021; Doiz Bienzobas et al., 2019; Sánchez Pérez, 2020), in many cases, student language skills are taken for granted, even though students themselves have expressed concern, particularly regarding their productive language skills (Ament & Pérez Vidal, 2015; Kamaşak et al., 2021; Macaro et al., 2018).

One key language area at university level is that of academic writing. It is particularly ironic that little or no support is provided for EMI students in academic writing (Moncada-Comas, 2022; Pecorari & Malmström, 2018), even though this is an area where even first language (L1) English users require guidance when they enter higher education (see Breeze, 2012, for full discussion of this point). In many US universities undergraduate students are provided with considerable academic writing support, while higher education institutions in other English-speaking countries also offer pre-sessional programmes, ongoing English for Academic Purposes (EAP) courses and specialised help in the form of writing centres (Breeze, 2012). In Japan and China, EAP support is frequently provided, even though the relevance of the language support given is sometimes questioned (Galloway & Ruegg, 2019). By contrast, European universities rarely provide help with academic writing in English, tending to place language competences in the background (Saarinen & Nikula, 2012). There appears to be a generalised assumption that language learning automatically takes place in EMI classrooms (Rose & Galloway, 2019), presumably through some acquisitional process resulting from a combination of exposure to language input and pressure to produce language regularly.

Several factors may explain the lack of interest in this point in European EMI. First, European universities place less emphasis on essay writing than those in the Anglo-American tradition, and EMI teachers in this context are particularly likely to

resort to multiple choice tests and short answers (Dafouz, 2020). Second, European university teachers, co-opted (often unwillingly) into EMI programmes, may feel unqualified to comment on issues concerning English or claim that they can grade their students' written work without paying attention to the language (Airey, 2012; Doiz Bienzobas et al., 2019; Rodríguez Melchor & Walsh, 2022). In this context, the teachers simply accept the English produced by their students, and modify their expectations accordingly. Third, research on student performance in EMI has often been conducted exclusively through self-report data (Macaro et al., 2018). Even though data obtained in this way obviously fail to provide an accurate picture of EMI courses, the results usually indicate that students feel they can cope, and so they are taken to be satisfactory. Finally, the expense and difficulty of providing EAP support for large student numbers may in any case prove prohibitive for European universities, which are already overstretched with class-heavy timetables. The result is a failed diagnosis and a missed opportunity: a generation of students is passing through EMI courses, but their problems with academic writing often remain undiagnosed and they miss the opportunity to acquire subject literacy and academic language proficiency (Dafouz, 2020).

In this paper, we investigate the English academic writing competences of a group of students taking EMI courses in Economics and Business Administration at a Spanish university, addressing the knowledge gap outlined above in two ways. First, we examine whether their academic writing competence correlates with their content grade awarded by the course teacher, and second, we explore to what extent their self-perceived writing competences correlate with evaluations of their work by language experts.

The article is structured as follows. First, we present a review of the pertinent literature and pose our research questions and objectives. Next, we describe the methodology used in the study and present our findings, illustrated with examples of student writing. These are discussed in the light of the relevant literature before we present some practical implications and draw some conclusions.

## 2. LITERATURE REVIEW

Despite its widespread acceptance, it is still clear that EMI poses many challenges to teachers and students alike (Macaro et al., 2018). A considerable volume of research has now been published on EMI addressing questions such as students' and teachers' beliefs (e.g., Airey, 2011; Bolton & Kuteeva 2012; Rodríguez Melchor & Walsh, 2022), teacher competences and training (e.g., chapters in Sánchez Pérez, 2020), translanguaging practices (Breeze & Sancho Guinda, 2021), and language gains (e.g., Aguilar & Muñoz, 2014; Ament & Pérez Vidal, 2015; Pessoa et al., 2014). However, it might come as a surprise to observe that during the first decades of the transition to English the actual language used by students and staff was often found to have low visibility in EMI settings (Saarinen & Nikula, 2012, p. 146).

In this context, many important questions remain unanswered. It is particularly striking how little research is available on the fundamental question of how EMI students' levels of language competence affect their academic performance (Macaro et al., 2018). This knowledge gap is difficult to address, partly because institutional policies in many countries mean that universities lack information about their students' English level at admission, but also because of the difficulties of obtaining comparable EMI and L1 groups in order to conduct a valid study, as well as for reasons of confidentiality. The few empirical studies addressing this issue have proved somewhat inconclusive. Regarding overall results, some authors suggest that the increased cognitive load of studying in a second language may result in poorer performance (Klaassen & Bos, 2010), while others (Dafouz et al., 2014; del Campo et al., 2015) conclude that the language of instruction (EMI or L1) does not seem to compromise students' academic content learning. On the other hand, some evidence (Breeze & Dafouz, 2017; del Campo et al., 2015) points to greater inter-individual variation in EMI than in L1 courses, which might be attributable to large differences in language competences at the outset, with the corresponding raised risk of failure among students with lower English competences.

As far as particular language competences are concerned, previous empirical research has concentrated mainly on listening skills (e.g., Aguilar & Muñoz, 2014; Breeze, 2014; Breeze et al., 2024; Siegel, 2018) and their importance for content comprehension. It seems highly likely that students with stronger English-language listening competences at the start of the degree course have an advantage in EMI courses, a supposition borne out by two rigorous empirical studies (Breeze & Miller, 2012; Kang & Park, 2005). Arguably, after listening, the second most important competence for EMI students is academic writing, which is a major ingredient of non-science degree courses. Students in EMI contexts elsewhere have rated writing as the second most difficult skill after speaking (Kamaşak et al., 2020) and expressed the need for support with writing skills (e.g., Akyel & Ozek, 2010). From research at other levels of education, we know that good writing competences are associated with high academic performance, while deficient literacy skills may be one of the main factors underlying academic failure (Christie, 2012; Meyer et al., 2015). The ability to write formal academic English cannot be taken for granted even among L1 English users (Snow & Uccelli, 2009), and as Wingate (2015) has convincingly shown, novice academic writers in EMI settings are faced with considerable difficulties, compounded by a possible mismatch between their educational background and the linguistic demands of content courses. Even for competent English users, it may be difficult to learn to compose argumentative or persuasive genres that one has not encountered at school, or to produce technical texts using the terminology and rhetorical structures of law, economics or philosophy. The challenge for L2 English users is likely to be even greater. Previous non-interventional comparative studies on student writing in EMI have yielded the observation that students generally write less in English than in their L1, and that low performing students appear to produce fewer discourse functions than high

flyers (Breeze & Dafouz, 2017). However, so far, few empirical studies have investigated the interaction between students' baseline writing competences and their written performance in EMI courses.

At the same time, we should be aware that there is a significant flaw in much previous EMI research that purportedly investigates the relationship between language and performance. As Dafouz et al. (2014) and Macaro et al. (2018) point out, most research so far on student outcomes in EMI is based on self-report by teachers or students, and so the conclusion that students can "manage" needs to be interpreted in this light. It is obviously not the same to say that students "have the impression" that they can manage well in EMI as to measure their performance empirically. Similarly, if teachers say that students can "manage", it does not necessarily mean that they are getting the most out of the course. Studies are needed to gauge the accuracy of student perceptions of their own competences.

Against this background, the present study addresses student writing in EMI from a dual perspective: (1) We test whether an independent assessment of students' academic writing is correlated with their content performance as graded by their teacher; and (2) we investigate how far students' self-perceived ability to write academic essays is correlated with their actual performance, as measured independently by language and content experts. In order to operationalise these issues, we formulated the following research questions:

RQ1: Is there a correlation between student's academic writing skills graded by language specialists and their performance in terms of content as graded by their content teacher?

RQ2: Is there a correlation between students' self-perceived ability to write academic essays and their performance graded by language specialists and content teacher?

RQ3: What are these EMI students' strengths and weaknesses with respect to academic writing?

### 3. SAMPLE, METHODOLOGY AND ANALYSIS

#### 3.1. Participants and setting

The students in this sample were all enrolled in an obligatory entry-level course on Business Administration taught in English on various Economics and Business Management degrees at a Spanish university; 46 of the 171 students (26.9%) enrolled in the course at the moment of data collection correctly performed the written assignment, signed the informed consent and completed the background questionnaire. Owing to Covid-19 restrictions in place at the time of the study, some students were online for this session, although most were physically present. All the

students were Spanish L1 speakers, and had a C1 certificate or equivalent in English; all were aged 18-20; 18 were female and 28 male.

### 3.2. Task and data collection

Permission was obtained from the department and institution, which offered full cooperation at all times. Before data collection, all students were informed about our aims and signed an informed consent form. For the task, the students completed an individual assignment consisting of writing 200 words in response to the prompt: “Why should every company have a vision statement?”. The students present completed this task in class in a maximum of 20 minutes. The students joining online had the same time, but sent the completed task to their teacher by email. Students wrote their answers under exam conditions: they were not allowed to consult notes or any other sources. In a second step the students were asked to fill in an online questionnaire (Google forms) based on Akyel and Ozek (2010), designed to obtain students’ self-perceptions concerning their English writing skills. Students rated how easy they find different aspects of academic writing (e.g., using appropriate vocabulary or organizing ideas in order to construct an argument), on a scale from 1 to 10 (1 very difficult, 10 very easy). This allowed us to compare students’ perception of difficulty with their actual achievement on a written test, in terms of both language and content.

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### 3.3. Analysis of writing samples and statistical procedures

*English competence assessment:* Two experts in English language teaching and assessment analysed the students’ written production on a scale based on writing rubrics used by IELTS and the Cambridge English Advanced exam. This included a global English score out of 10, and analytical scores for appropriate specialized vocabulary, appropriate academic register, and cohesion, each of which was rated on a three-point scale, 1 corresponding to “in need of improvement”, 2 to “acceptable”, and 3 to “highly competent”. The two raters first rated the writings individually and afterwards discussed and compared their ratings to reach a consensus mark.

*Content score:* The EMI content teacher provided a content score for each writing sample using a rubric with five criteria: length, clarity, reasoning, creativity, and accuracy of the content (i.e., not grammatical accuracy). Each of these aspects was rated on a 4-point-scale, ranging from unsatisfactory to excellent. Based on this, the teacher awarded a global content score out of 4.

*Student self-assessment:* Students were asked to provide a self-assessment on a scale from 1-10 of the following aspects: 1) overall ease at performing written academic tasks; 2) perception that it is easy to use appropriate specialized vocabulary; 3)



perception that it is easy to use appropriate academic register; and 4) perception that it is easy to organize one’s ideas when writing academic tasks.

*Statistical methods:* As the Likert-type scales used produce non-parametric data, we used Spearman’s rho to calculate correlations and the Wilcoxon signed rank test for ordinals to calculate differences between results (significance was set at  $p < 0.05$ ). We calculated the correlation and difference between the following variables: content score and global English score; global English score and self-reported writing ability; content score and self-reported writing ability; register score and self-reported ease with academic language; vocabulary score and self-reported ability to use appropriate vocabulary; cohesion score and self-reported ability to organize ideas.

*Qualitative analysis of student writing:* In the final stage of the study, the two authors who are English-language experts conducted an exhaustive review of the students’ essays, focusing on vocabulary, register and cohesion. After analysing the essays individually, they compared their observations to achieve a consensus concerning the most salient points, and selected relevant examples to illustrate these.

## 4. RESULTS

### 4.1. General trends

The students generally had a rather optimistic view of their own writing competences when asked to assess their overall self-perception, while the global English score and mean content score tell a rather different story. Table 1 provides the overview of these results.

GLOBAL ENGLISH SCORE OUT OF 10	GLOBAL CONTENT SCORE OUT OF 4	OVERALL SELF-PERCEPTION SCORE OUT OF 10
Mean: 7 Standard deviation: 1.9 Median: 7.1 Mode: 4.3	Mean: 2.6 Standard deviation: 1 Median: 3 Mode: 2	Mean: 8.7 Standard deviation: 1.5 Median: 9 Mode: 10

**Table 1.** Descriptive statistics: Global English score, global content score and overall self-perception (n=46)

Although the average English score was 7 out of 10, which points to an acceptable level of written English for these EMI-students, the standard deviation is rather high (higher than in case of the self-perception mark) and the mode of 4.3 suggests that a certain number of students’ writing was considered to be in need of improvement by the English experts. Looking at the students’ perception of how capable they are of writing essays, we note that their mean self-perception is higher than the mean English score (8.7), and a median of 9 and a mode of 10 point to a highly positive

self-perception in many of the students. In terms of content, the mean of 2.6 indicates that on average the students obtained acceptable scores for their content knowledge, even though a mode of 2 also means that many of the students' answers were considered to be in need of improvement from a content point of view. These descriptive results thus suggest that the students' confidence may not always be grounded on their actual abilities to write appropriately.

Regarding the three analytical aspects we focus on in this paper, Table 2 shows that the students scored best on academic vocabulary, with a mean of 2.5 out of 3, followed by academic register (mean score 2.2 out of 3), with the lowest score for cohesion (2 out of 3). However, their self-perception for each aspect is not aligned with the objective expert assessments of their performance. In the following sections, we look at each of these aspects in turn.

APPROPRIATE ACADEMIC VOCABULARY (OUT OF 3)	SELF-PERCEPTION VOCABULARY (OUT OF 10)	APPROPRIATE ACADEMIC REGISTER (OUT OF 3)	SELF-PERCEPTION REGISTER (OUT OF 10)	COHESION (OUT OF 3)	SELF-PERCEPTION COHESION (OUT OF 10)
Mean: 2.5 Standard deviation: 0.6 Median: 3 Mode: 3	Mean: 7.9 Standard deviation: 1.6 Median: 8 Mode: 9	Mean: 2.2 Standard deviation: 0.8 Median: 2 Mode: 3	Mean: 7.8 Standard deviation: 1.6 Median: 8 Mode: 8	Mean: 2 Standard deviation: 0.8 Median: 2 Mode: 2	Mean: 8.2 Standard deviation: 1.5 Median: 8 Mode: 10

**Table 2.** Descriptive statistics: Analytical English scores and self-perception scores for three aspects of academic writing (n=46)

## 4.2. Quantitative results

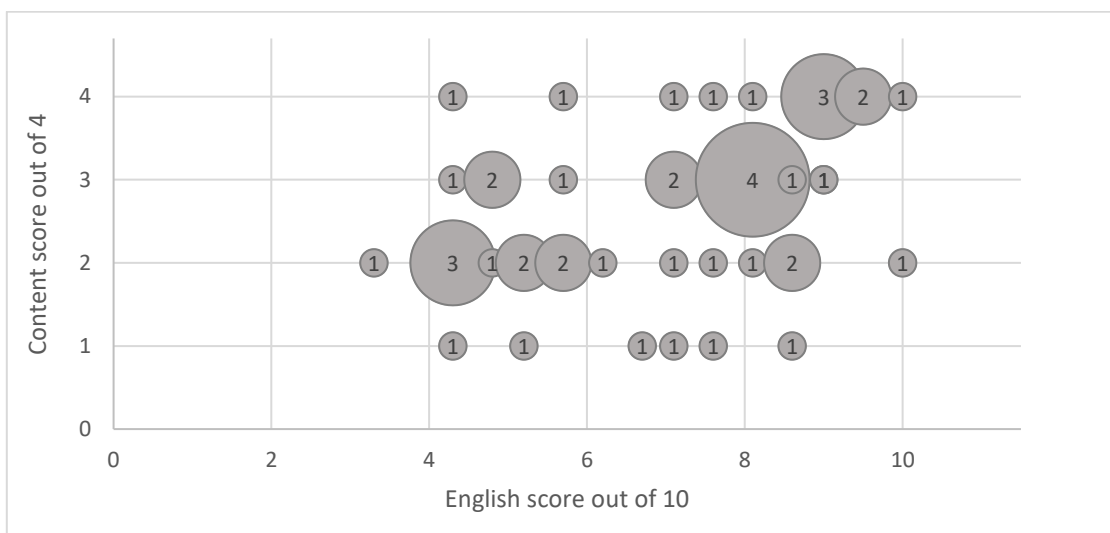
In this section, the relationships between the scores given by the different stakeholders (EMI teacher's scores, language specialists' assessment and students' self-perceptions) are displayed and analysed in detail. Significant correlations were found in all cases except for the two in which the students' overall self-reported ability to write short academic texts was included. In other words, the students' self-reported confidence at writing academic texts was not correlated either with their content grade or their global English score. However, there was a correlation between the content and language scores, and also between the students' analytical self-assessments and the corresponding scores given by the English experts. The results are illustrated in more detail below: the first subsection answers research question 1, while the others address research question 2.

### 4.2.1. Research question 1: Content score and English score

We asked whether there is a correlation between the students' academic writing skills graded by language specialists and their performance in terms of content



graded by their content teacher. This was indeed the case: the correlation between their content score and their English score was statistically significant using Spearman’s rho ( $r_s = 0.35586$ ,  $p$  (2-tailed) = 0.01522). There was also a significant difference between these two scores, which was significant at  $p < .01$  ( $Z = -5.9052$ ). These results are displayed in Graph 1.



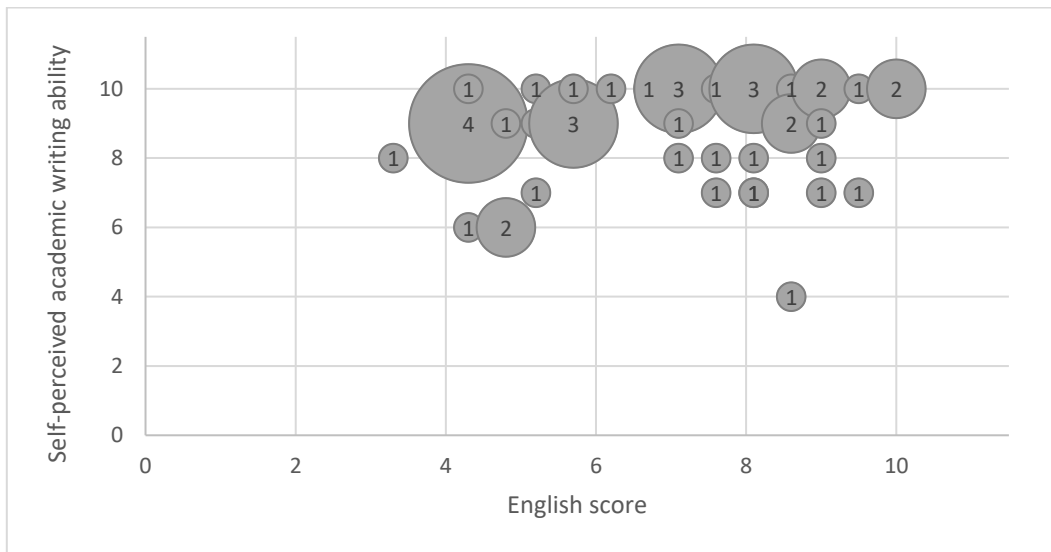
**Graph 1.** Correlation between English score out of 10 (x axis) and content score out of 4 (y axis)

#### 4.2.2. Research question 2: Student self-perceptions compared with expert assessment

This subsection addresses research question 2, comparing student self-perceptions with different expert assessment scores given by content or language teachers.

##### 1. English score and self-reported impression that it is easy to write academic texts

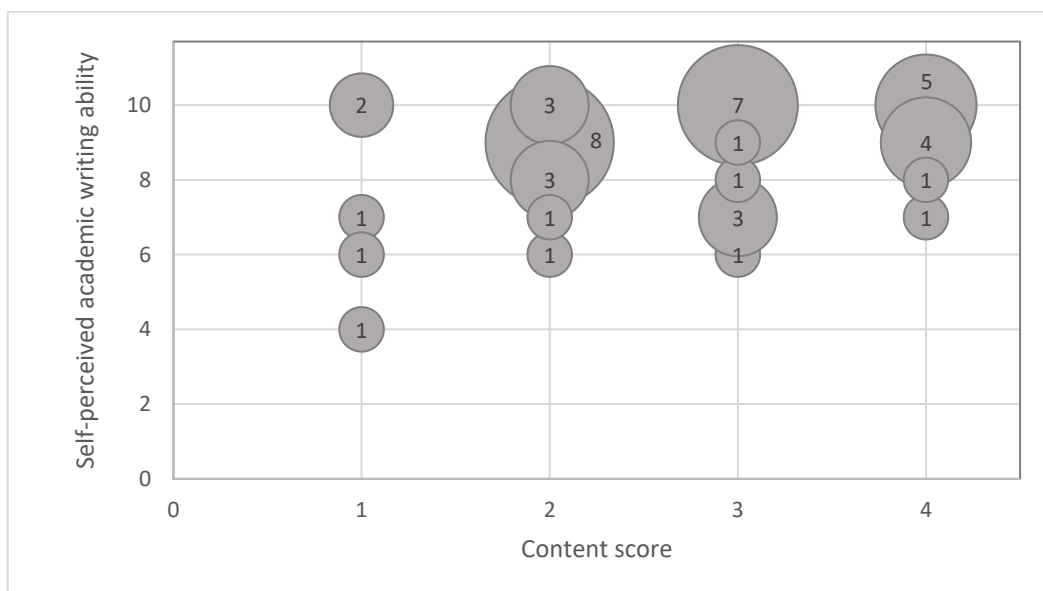
According to the results obtained using Spearman’s rho for non-parametric variables, the association between the variable “English score” and the students’ self-reported impression that it was easy to write academic texts is not statistically significant ( $r_s = 0.16489$ ,  $p$  (2-tailed) = 0.27348). Graph 2 illustrates the tendency for students to rate their own academic writing ability rather highly, with a large number of students awarding themselves scores close to 10, while the consensus expert score for their writing was in some cases as low as 4 or 5 out of 10. The difference between the two scores was significant, calculated using Wilcoxon signed rank test for ordinals ( $Z = -4.2504$ ).



**Graph 2.** Correlation between English score and self-perceived ability to write short academic texts

*2. Content score and self-reported perception of academic writing ability*

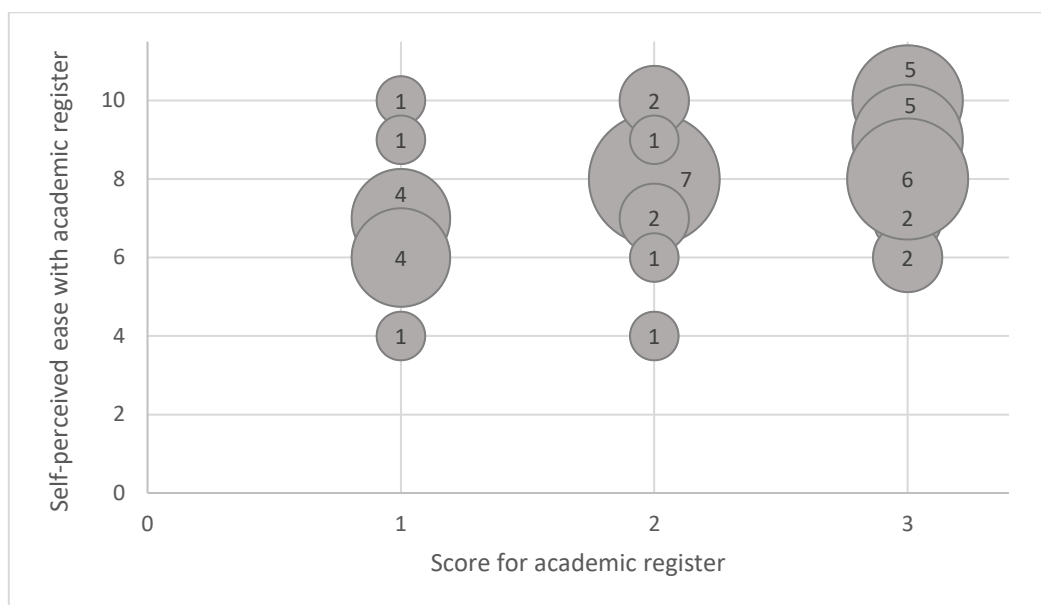
According to the results obtained using Spearman's rho for non-parametric variables, the association between "content score" and the students' self-reported ease at writing short academic texts is not statistically significant ( $r_s = 0.19295$ ,  $p$  (2-tailed) = 0.19889). Again, as Graph 3 shows, the tendency seemed to be for students to overrate their academic writing ability, with many students rating themselves at 9 or 10 while their content scores were 2 or 3 out of 4. The difference between scores was significant, calculated using Wilcoxon signed rank test for ordinals ( $Z = -5.9052$ ).



**Graph 3.** Correlation between content score and self-perceived academic writing ability

3. Register score and self-reported ease with academic register

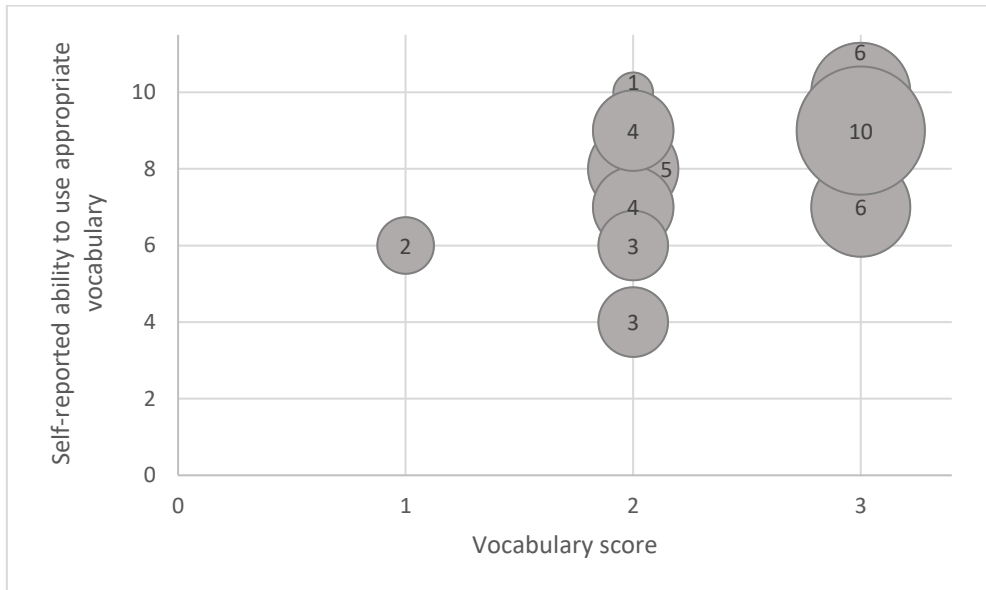
This question focused specifically on academic register, that is, formal, academic style. As Graph 4 shows, there was a linear correlation between the students' self-perception in this area and the score given by the language experts. Wilcoxon signed rank test shows the association between the two variables to be statistically significant ( $r_s = 0.37168$ ,  $p$  (2-tailed) = 0.01098). The difference between the two scores is also statistically significant ( $Z = -5.9052$ )



Graph 4. Correlation between register score and self-reported ease with academic register

4. Vocabulary score and self-reported ability to use appropriate vocabulary

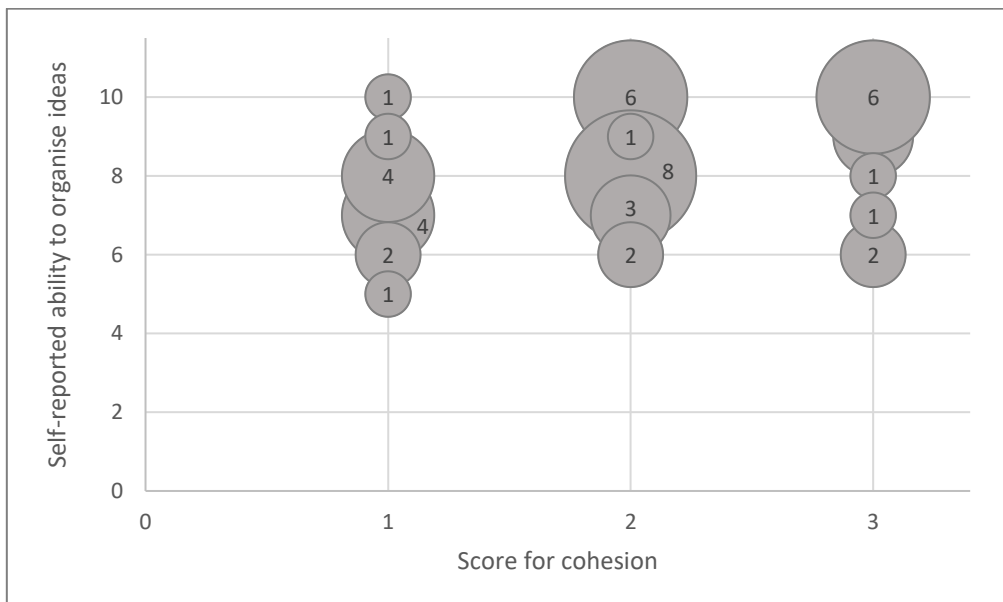
As Graph 5 shows, there was a positive correlation between students' self-reported ability to use academic vocabulary and the vocabulary score given by the language experts. By Spearman's rho, the association between these two variables would be considered statistically significant ( $r_s = 0.50948$ ,  $p$  (2-tailed) = 0.0003). The difference is also statistically significant ( $Z = -5.9052$ ).



**Graph 5.** Correlations between vocabulary score and self-reported ability to use appropriate vocabulary

*5. Cohesion score and self-reported ability to organise ideas*

As Graph 6 suggests, there was a correlation between students' self-reported ability to organise ideas when writing, and the score given for cohesion by the language experts. Using Spearman's rho for ordinal data, we would consider this association statistically significant ( $r_s = 0.35932$ ,  $p$  (2-tailed) = 0.01419). The difference between these two variables was also statistically significant ( $Z = -5.9052$ )



**Graph 6.** Correlation between score for cohesion and self-reported ability to organise ideas

### **4.2.3. Research question 3: Students' strengths and weaknesses in academic writing**

Among other aspects, the above results suggest that students perceive some problems with vocabulary, but feel that they have more difficulties in the concrete areas of academic register and organisation of ideas. Following on from this, a qualitative analysis of students' essays provides us with more insights into areas for improvement, which could be a starting point for providing EMI students with academic writing support. In this section we provide examples of the three aspects of writing which are the focus of this paper, namely vocabulary, register, and cohesion.

We will begin with vocabulary, which was the area where students felt more confident. In the writing task for this study, the students were generally able to use a range of specific topic-related vocabulary, such as "short-term and long-term goals", "competitors", "make a profit", "stakeholder", "achieve success", or "reach objectives". Lower vocabulary scores tended to be awarded because of the use of less specific vocabulary (i.e., "what the company wants to do" instead of "our corporate mission"), or frequent repetitions of the same items (in one short answer, the term "vision" was repeated 5 times). In a few cases, words were also misused, and there were problems with collocations. For example, some students used expressions such as "to put into mind" or "realize a job" (interference from Spanish "realizar un trabajo"). In connection with vocabulary, several words were also misspelled, such as "costumers" instead of "customers", "stablish" instead of "establish", "achive" instead of "achieve", and "it's" instead of "its".

When we looked at academic register, we identified typical problems such as the use of contractions and the personal pronouns "I" and "you". Several informal expressions were also used by the students, for example: "You will be able to do it way faster.", "There are lots of things...", "A couple of reasons...", or "Having a vision statement will be great for the company".

The use of inappropriate punctuation and remarks that are too personal are also problems which some students face, as in example 1:

- (1) What do I understand as a vision statement?? Personally, I take those words as future goals and plans in the short and in the long run, that need of a vision statement to be fulfilled.

We can compare this to a satisfactory example (2), where an appropriate academic register is used:

- (2) Every company should have a vision statment because a vision statment is a guideline for the company and all of its components to stay focused on acheving the growth of the company. It helps the employees understand what they are working for and what is expected of them. This way a vision statment is a mixture of the

companies ideology, in other words what they are working for, and what they expect the company to be in the future.

Of the three aspects of academic writing which we focused on in more detail, cohesion appeared to be the most difficult, as students obtained a mean score of 2 (on a 3-point scale), while for register the mean score was 2.22 and for vocabulary 2.5. A recurring problem with cohesion is that students tend to link several sentences together using commas, such as in example 3:

- (3) One of them is having a vision, an objective where does our company want to arrive, I think this is very important because it helps to grow and keep developing.

Using this technique, some students even create an entire paragraph which is one long sentence, as in example 4:

- (4) The company will experience an emotional boost, people are going to be inspired by the idea of achieving their goals, it will also help to stay focused, this goals will be little steps to achive success and fullfill the companie's vision.

We may compare this to an example of appropriate cohesion in example 5:

- (5) On one hand, visions allow firms achieve their goals in a targeted time. This is very important because it allows everyone to row in the same direction. Without a vision, people do not know what to do in different scenarios. Moreover, having a vision can help your organization to see why things are not going right and lets you change habits before things get worse.

Other problems with cohesion we identified were a lack of linking words, the wrong usage of linking words (for example sentences starting with "and", "but" or "so"), or the repetition of ideas, as in examples 6 and 7:

- (6) And this is what the vision states. Without a vision a company has no where to go and as a consequence it won't go anywhere, this means it won't grow.

- (7) The importance of a company diversifying is very important.

We should note that apart from the use of punctuation and linking words, students also struggle with the use of logical paragraphs in which ideas are clearly organized, and may need help to learn how to write texts with a clear introduction, and well-developed organization towards a conclusion. These aspects of academic writing often pose difficulty for students even in their first language, and so we should not assume they will be easy for the students when writing in English.



## 5. DISCUSSION

This section will address each research question in turn, and will end with some general reflections on the need for academic writing support in EMI contexts. First of all, this paper has shown that there is indeed a strong correlation between students' academic writing skills and their performance in terms of content as graded by their teacher. Since this, in effect, means that students with weaker academic writing skills are likely to be at a disadvantage, it is clear that some support in this area would be beneficial. Since the students that participated in this study were only in the very early stages of their university degree, their performance reflects most clearly what they bring with them when they enter the university. It is reasonable to assume that as they advance through the degree course, greater demands will be made on them in terms of writing. On the basis of our results, which are in line with the findings of studies conducted elsewhere (Kamaşak et al., 2021), we can conclude that for EMI students to achieve their full potential, guidance or help in the area of academic writing should be a priority.

Particularly in the context of business-related degrees taught through EMI, professional writing in English has been rated as a challenging but important skill that may condition future opportunities (Wang & Shen, 2019). In fact, a few previous studies have looked at improvements in competences such as writing in EMI contexts when focused training is provided. For example, Pessoa et al. (2014) found that Qatari students had difficulties with EMI writing, but improved after a programme of appropriate strategy training. In the last ten years, there has been some recognition that if EMI programmes are to reach their full potential, students should be encouraged to develop awareness of academic language and helped to acquire subject-specific literacies (Ament & Pérez Vidal, 2015; Macaro et al., 2018). It would therefore be wise to invest in academic writing support for those students who need it, since it is likely that European students would also benefit from a programme of awareness raising on issues related to the purpose, style and structure of academic texts (Breeze, 2012).

Secondly, this paper has shown that students' general self-perceived competence in academic writing has little or no correlation with their overall performance on this specific written assignment. Although it is doubtless good that students have high self-esteem, we might speculate that their confidence could be a side-effect of EMI courses in which teachers feel that correction is not part of their role as content teachers (Airey, 2011, 2012; Tsui, 2017), and priority is given to content over accuracy or appropriacy of student language, with the result that correction is at best unsystematic (Mancho-Barés & Aguilar-Pérez, 2020). There is a risk that these students might face a rude awakening when they have to use English in more demanding settings, such as in a study abroad programme or in their future professional life. It is also clear that universities should cease to rely on students' self-reported ability in English, and use objective measures to assess the different components of their English competence.

Interestingly, however, students' analytical self-assessment of specific subskills such as register or cohesion, and of their ability to use appropriate vocabulary, proved to be more accurate, and were correlated with the independently assessed scores given by the language experts. Students expressed awareness of their difficulties, and many students actually did have considerable shortcomings in these areas, as the examples we have provided here should serve to illustrate. It would be interesting to capitalise on the students' awareness of these specific issues to provide an entry point for focused language instruction, or simply an occasion for classroom discussion about how to achieve a more convincing/accurate/appropriate style. At the very least, all first-year students should be offered some focused support on academic register and discipline-related vocabulary, since this is likely to be the first time that they have had to write cognitively and linguistically demanding texts for an academic specialty at this level. Moreover, a definite priority in this would be some guidance on textual organisation: cohesion was the area where the students received on average the lowest scores, and we suspect that this points to particular difficulty in bridging the gap between acceptable school-level competence and addressing the more advanced academic tasks set at undergraduate level. In this, a focus on cognitive discourse functions as discussed by Breeze and Dafouz (2017) could be an interesting point of departure, since these under-recognised aspects of academic tasks provide the cognitive underpinning necessary to organise answers to complex questions coherently.

This study has several strengths: it is ecologically valid, conducted in a real EMI setting as part of a normal sequence of classes with the EMI lecturer responsible for the group; the assessments were carried out by professionals qualified in language testing; the design is original and the results are thought-provoking. However, it also has some limitations. We did not focus specifically on grammatical accuracy, for example, even though this continues to be an issue in EMI. The proportion of students who completed all aspects of the study was rather small. The writing sample itself was rather short. Finally, the content score was awarded by a single teacher, and although this is normal practice in university EMI settings, in future it would be useful to involve a second rater as we did for all the language scores.

## 6. PRACTICAL IMPLICATIONS

From the results and the discussion follow some important practical implications on three levels: (1) the university, (2) the professor, and (3) the students themselves.

This study's finding that students with weaker academic writing skills are likely to be at a disadvantage means that (European) universities should pay more attention to students' needs regarding EMI. Otherwise, students with a lower level of English writing skills might underperform or fail to develop their whole potential. It would be wise to offer students additional courses that support them for and during EMI courses. This issue is certainly not only of concern regarding the university's own students, but it is also important when it comes to exchange

students. For exchange students it is typically mandatory to participate in language classes that teach the language of the exchange student's destination. These same students, however, mostly take their classes in English at the receiving institution, and sometimes this is the first time they have actually experienced EMI. It would be beneficial to offer exchange students some additional help to also cope with their needs regarding EMI in these circumstances. To optimise resources, we suggest that tailored, credit-bearing writing courses for both home and exchange students should focus on the genres, register and lexis of the students' chosen degree, in the spirit of English for Specific Purposes, rather than on general EAP, and that the focus of these courses should be agreed between content lecturers and language experts in order to ensure mutual understanding and avoid overlap.

This study's findings also have implications for content lecturers and other teaching staff. This paper's results point to the importance of lecturers' developing an awareness of their students' English language competences and *needs* – especially with regard to their writing skills. When setting and correcting writing assignments, they should work with language experts to ensure that clear explanations concerning language, genre and other expectations are given, and to devise ways of helping students acquire a deeper awareness of academic language and subject-specific literacies. They could work jointly with language experts to develop a bank of subject-related language resources, including glossaries, model writing assignments, and strategies for improving professional writing. Obviously, there are limits to the time teaching staff and students can invest in such issues. However, many students have chosen EMI programmes because of their perceived language benefits (Moncada-Comas, 2022), and so they may be willing to invest some time and effort in bringing their writing skills up to the required level, even if credit-bearing courses are not available.

In both approaches (separate writing courses taught by language experts and focused support within the EMI course itself), it is clear that collaboration between language and content teachers is essential. One way to operationalise this is by encouraging team teaching involving content lecturers and professionals from language departments, an approach that has been trialled in various forms and is regarded positively by content experts (Breeze & Sancho Guinda, 2021; Doiz Bienzobas et al., 2019; Sánchez Pérez, 2020). If content lecturers can find professional support in this area, they will be more likely to incorporate writing tasks into the programme, give students advice about where to find help, and provide feedback to enable them to improve their English writing skills.

## 7. CONCLUSION

This study reports on an empirical analysis of student writing in EMI, and sheds light on writing in EMI contexts in a number of ways. First, it points to the significant relationship between the quality of the students' writing and their overall content

score. Secondly, it brings to light a major discrepancy between the students' self-reported confidence in their ability to write academic texts in English, and their actual performance as assessed by content and language experts. Thirdly, it shows that students are most aware of their shortcomings and needs when it comes to specific, concrete areas of English than when they are asked for their overall self-perception. In particular, students found it difficult to use the register and disciplinary vocabulary expected at university level, and to organize their texts cohesively and coherently. All of this suggests that there might be readiness for academic writing training if this is tailored to meet specific needs that arise in the university context. At the same time, EMI teachers should consider paying more attention to the demands they make on their students in terms of writing and the support that they provide. Team teaching with language experts would prove useful to bridge the gaps that arise between the competences that students have when they enter university and the demands made on them by university EMI courses.

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