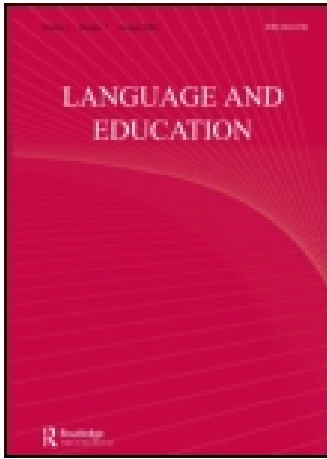


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‘Surely they can’t do as well’: a comparison of business students’ academic performance in English-medium and Spanish-as-first-language-medium programmes

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For years, universities worldwide have offered English-medium degrees as a way to attract international students and staff, enhance their institutional profile and promote multilingualism. In Europe and the European Higher Education Area (EHEA), English-medium instruction (EMI) is more recent, but the dimension and speed of its implementation has outpaced language policies, methodological considerations and empirical research. In view of this, this paper focuses on an empirical study examining the effect that the teaching of a Business Administration degree in English as a foreign language may have on Spanish students’ academic performance (as measured through coursework and final grades), when compared to their counterparts’ learning in Spanish. Students’ grades are analysed in three different disciplinary subjects and treated statistically. Findings show that both cohorts obtain similar results, suggesting that the language of instruction does not seem to compromise students’ learning of academic content. Differences, however, are found regarding learners’ performance in the three disciplinary subjects under scrutiny, with history yielding slightly higher results than accounting and finance. This finding runs counter to the general belief that the more verbal subjects, like history, would have a ‘limiting’ effect on EMI students’ final performance and, moreover, raises questions concerning disciplinary differences and assessment.

Keywords: English-medium instruction (EMI); student academic performance; disciplinary discourse(s); higher education; assessment

Introduction

For the past 25 years, the European Commission has been launching different programmes to gradually foster the internationalisation of higher education in Europe. One of such early initiatives is the Erasmus programme, established in 1987 to support international student exchanges between universities. As a result, approximately 2.2 million European students have completed some part of their degree abroad in more than 4000 higher institutions across 33 participating countries (European Commission 2012). More recently, an ambitious plan towards university internationalisation and the consolidation of a knowledge society has materialised in the articulation of the European Higher Education Area (EHEA), a top-down strategy that pursues the harmonisation of university degrees, the attraction of international students and staff, and the enhancement of the institution profile across Europe. In this fairly new scenario, northern European universities have a longer tradition in offering whole degrees or specific modules in a language (mostly English) different to the students’ native language (Maiworm and Wächter 2002). For example, in Norway

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(Hellekjaer 2010), Sweden (Airey 2004, 2009; Nilsson 2003) or Finland (Saarinen 2012) many degrees, especially at postgraduate level, are taught fully in English. The Netherlands, and more concretely Maastricht University, is also a pioneering instance of an international institution where diverse degrees ranging from health care, economics or engineering are taught through English (Wilkinson 2013).

In southern Europe, and more concretely Spain, courses in English as a foreign language are not so broadly extended probably since for decades the country's national level of English has remained one of the lowest in the European Union (EUROSTAT 2010), and, as a result, only a small percentage of higher education students can actually study and work in this language. Against this backdrop, the central and regional governments have implemented language educational policies at primary and secondary levels across the Spanish territory to raise foreign language competence, using the Content and Language Integrated Learning (CLIL) approach as an umbrella term (see Dafouz and Guerrini 2009; Lasagabaster and Ruiz de Zarobe 2010; Lorenzo, Casal, and Moore 2009). The acronym CLIL has been used extensively mostly across Europe (but also beyond) to refer to a *dual* educational approach where equal attention is paid to both content and language objectives (Coyle, Hood, and Marsh 2010). As a result of a decade of CLIL implementation measures in Spain in compulsory education settings, there may soon be 'a new generation of students (and teachers) [in tertiary education], who will consider learning through a foreign language a common practice' (Dafouz and Núñez 2009, 110).

Nonetheless, in spite of the dimension and fast implementation of CLIL programmes across Europe, at the tertiary level there is still an urgent need for interdisciplinary research that will help to provide empirical evidence and, ultimately, reinforce content teacher and language specialist collaboration. In this line, the present study, an example of cooperation between applied linguists and business faculty, pursues to contrast Spanish university students' actual academic performance in a Business Administration (BA) degree that uses English as a medium of instruction (EMI)¹ with that of their counterparts learning in their mother tongue (Spanish).

Our research questions are formulated as follows: (1) does the teaching and learning of content through another language (English) have an effect on students' academic performance (i.e. lower or higher final grades) when compared to their counterparts' academic performance in Spanish? And (2) does students' academic performance in English vary (i.e. result in higher or lower grades) depending on the 'nature' of the different subject courses examined? In other words, do students obtain higher results in subjects traditionally viewed as more numerical rather than in subjects considered more verbal, as a result of not being fully functional in English? In order to answer these questions, we analyse both cohorts' academic grades (i.e. coursework and final exam results) in three first-year subject courses, namely, Financial Accounting I (accounting), Principles of Business Financial Management (finance) and Economic History (history). We decided to examine these different courses after noticing, in student interviews, their concerns regarding the verbal demands of a subject like history (especially in relation to final exams) in comparison to other subject courses like accounting or finance.

Research concerns in CLIL/EMI settings

Research concerns in the teaching of content through a foreign language in European higher education have roughly coincided with supranational plans for the internationalisation and development of multilingualism and multiculturalism at the tertiary level (European Commission 2008). Briefly, much research has focused on a number of recurrent topics such

as teacher and student attitudes towards this new context, features of classroom discourse and school practices, the predominant role of English as lingua franca in Europe and worldwide, or the need to integrate explicitly content and foreign language objectives in the curriculum (see Smit and Dafouz 2012b, 1–12 for a detailed account).

For questions of space, this study will refer to three major concerns, namely, teacher and student views of EMI instruction, student foreign language proficiency and student academic competence. Respectively, the study of teacher and student attitudes is probably one of the most extensively researched, and although manifestly different as regards research foci and issues analysed, the findings can be grouped in two areas, according to how positively or negatively teachers and students view their EMI experience. On the whole, research coming from the Nordic countries in Europe generally claims that learning disciplinary content through a foreign language *complicates* students' learning process (Airey 2004, 2009; Hellekjaer 2004). In contrast, studies conducted in central and southern Europe (see Tatzl 2011 in Austria; Fortanet-Gómez 2012, Aguilar and Rodríguez 2012, Dafouz et al. 2007, or Doiz, Lasagabaster, and Sierra 2011 in Spain; or Costa and Coleman 2012 in Italy) generally view learning through a foreign language as an *opportunity* that indeed may entail greater effort on both parts but which eventually pays off in the form of student and teacher improved foreign language competence, as well as mobility and employment opportunities. Although the reasons for such a different outlook on EMI education are not easy to summarise or articulate, one could argue that, in the case of the Nordic countries, an already high competence in the English language as well as legitimate language protectionism motives may play a major role.

Second, research on student foreign language competence at the tertiary level, contrarily to what happens in primary and secondary CLIL settings, is rather scarce. A sizeable proportion of studies on students' actual language competence is mostly impressionistic, drawing from teachers' and students' perceptions and self-reported surveys, rather than from empirical research (Pérez Cañado 2012). The most plausible explanation for the predominance of qualitative approaches may be related to the fact that in higher education degrees the foreign language is not usually regarded as a curriculum concern but a necessary tool for enrolling in these programmes. In other words, foreign language competence is viewed as a *requisite* rather than an expressed learning outcome, and consequently, most higher education contexts cannot be treated strictly speaking as CLIL settings, since the (foreign) language issue seems to be largely overlooked and 'transmission-oriented approaches' (Coyle 2008, 101–102) are found to predominate.²

Third, and closely connected to the prior concern, is the question of student academic performance in disciplinary subjects. The linking of student academic performance and subject specific language competence is crucial, in so far as the learning through a foreign language is thought to have an effect on learners' knowledge, skills and general understanding of the subject. As Dalton-Puffer (2011, 188) points out '[b]ecause the medium of learning is less perfectly known than the L1, it is feared that this will lead to reduced subject competence as a result of either imperfect understanding or the fact that teachers pre-empt this problem and simplify content'.

As mentioned above, research on student content learning is neither extensive nor conclusive for a variety of reasons. First, it seems that most researchers involved in EMI contexts are language specialists and thus adopt a language-oriented focus rather than a content-oriented one (Smit and Dafouz 2012a,b); another reason could be related to the fairly recent implementation of EMI degrees in traditionally monolingual European universities, which by and large dates back 10 years or less. Finally, the lack of standardised tests

across disciplines and educational contexts make quantitative and cross-national research difficult to conduct (Dalton-Puffer 2011, 188).

Despite these limitations, some studies at prior levels of education (primary and secondary) have focused on learners' content learning in different disciplines. In mathematics and science, for example, Jäppinen (2005) concludes that primary children in Finland develop appropriate thinking skills and content learning, while, also in the domain of mathematics, van de Craen, Ceuleers, and Mondt (2007) manifest that learners in Belgium generally outperform their counterparts both in the foreign language and the L1. At the secondary level, Vollmer et al. (2006) in geography, Admiraal, Westhoff, and de Bot (2006), in geography and history, or more recently Badertscher and Bieri (2009) in history, geography and science, are all examples of research that largely conclude that students' academic performance in content subjects is not affected by a change in the language of instruction. The reasons for these results are often linked to CLIL learners' higher levels of motivation and successful learning strategies when compared to non-CLIL learners, but other possible variables, such as students' academic literacy in their L1, foreign language competence or differences in teaching methodologies will most likely be related, and thus, further studies on these issues are undoubtedly in need.

On disciplinary (discourse) differences across subject courses

The growing proliferation of disciplines in the higher education scene has led to a number of different classifications. One of the most influential typologies was Biglan's (1973), which proposed the classical division between 'hard' and 'soft' sciences and 'applied' versus 'pure' disciplines. According to this model, natural sciences, for instance, would be classified as hard and pure; social sciences would be categorised as soft and pure (or applied, depending on the specialisation) while engineering would be labelled as hard and applied. In spite of criticisms of this classification on account of its reductionism, Biglan's model is still widely used to explain how teaching and learning principles and methods may vary depending on the 'inherent' nature of the disciplines (see Neumann 2001; Neumann, Parry, and Becher 2002). According to Neumann et al. (2002), hard pure subjects try to enhance students' logical reasoning, and their capacity to apply and test out ideas derived from the theory learned. In contrast, the curricula of soft pure disciplines are built concentrically 'returning with increasing levels of subtlety and insight into already familiar areas of content' (ibid 2002, 407). In these courses, content is more qualitative and interest is focused on developing students' critical perspectives. Focusing on the three subjects analysed in our data, and following Neumann (2001) and Neumann et al. (2002), Economic History would classify as a soft pure discipline where greater importance is placed on broad general knowledge and on effective thinking skills. In contrast, the subjects of Financial Accounting I and Principles of Business Financial Management could be broadly described along a continuum spanning from soft applied (accounting) to hard applied knowledge (finance) '[both] concerned with the enhancement of professional practice and aiming to yield protocols and procedures' (Neumann et al. 2002, 406), however, differing in the relevance of knowledge application to the real world.³

These different perspectives also seem to lead to distinct teaching methods and assessment formats. Thus, soft pure disciplines (e.g. history) are believed to favour small lectures and seminars, and encourage students 'to put forward their own ideas in the form of written essays or verbal presentations' (Neumann et al. 2002, 412), while soft/hard applied disciplines (e.g. accounting and finance) while sharing the former teaching methods, place more emphasis on problem-solving abilities of a more open-ended variety than the hard pure disciplines. Smart and Ethington (1995) suggest that while all disciplines seem

to rely greatly on written examinations, the soft pure disciplines emphasise student oral presentations and exam questions that are more likely to require analysis and synthesis of course content. In this line, history would naturally demand considerable levels of verbal literacy as students would need to articulate, both orally and textually, complex concepts and use the register features (i.e. mode, field and tenor) on which the discipline of history is based (see Coffin 2006; Llinares, Morton, and Whittaker 2012: 132–145, Schleppegrell, Achugar, and Oteiza 2004). On the other hand, soft/hard applied disciplines (i.e. accounting and finance) construct exams on problem-solving exercises, multiple choice questions and practical reports, which, although not exempt from specific discursive skills and register principles (O'Halloran 2004; see also Tardy 2009 for a concrete account on the genre of business studies) would initially not require such lengthy explanations and textually developed products.

English-medium instruction at the Complutense University of Madrid

This study aims to examine whether the language of instruction (English) may affect negatively students' academic performance in higher education. This investigation was conducted during the academic year 2010–2011 in the School of Economics and Business Administration at the Complutense University of Madrid (UCM). This university is the largest in Spain with over 75,000 students and around 6000 teachers and offers 65 different undergraduate degrees and 105 official master's and doctoral programmes. In this setting, internationalisation is regarded by the university authorities as a key strategy that

(...) aims to attract students and researchers from all over the world, with their own languages and cultures (...). In short, it is firmly committed to the project 'The Power of Diversity' as an innovating and integrating plan to achieve excellence and sustainable development (Complutense University internationalisation principles <http://portal.ucm.es/en/web/en-ucm/campus-of-international-excellence>).

Despite this top-down 'internationalisation at home' plan (Nilsson 2003), with both teachers and students largely Spanish nationals in a monolingual context, most of the initiatives to implement EMI programmes have paradoxically operated from a bottom-up perspective, with individual teachers or departments embarking in EMI on an experimental level. This is the concrete case of the School of Economics and Business Administration (BA), where the idea of implementing an EMI strategy dates back to 2005 when a number of teachers started offering specific topics or modules through English. However, a more systematic and institutionalised plan had to wait until 2009 when the dean's team designed the EMI degree. Currently, there are nine groups in the BA degree and eight groups in the economics degree. From these 17 groups, 2 EMI groups have been officially implemented so far. Regarding curricular issues, the EMI strands are parallel to the non-EMI, as they follow the same curriculum, and are sometimes taught by the same teachers and implement equal assessment procedures. Students enrol in the EMI strand on a voluntary basis in search of an international dimension to the degree and higher employment opportunities. These students, however, are required to either certify a B2 level of English (CEFR) in the form of ESOL or TOEFL certificates or other official exams, or take an entry test provided by the faculty. Once studies are completed, an official 'bilingual certificate' is issued by the UCM to acknowledge students' completion of the degree in English.

Participants

The study involved tracking first-year Spanish students' academic outcomes (e.g. coursework and final exam grades) in the BA degree. Two groups were compared: an EMI group

and a non-EMI group. The initial sample consisted of 125 students enrolled in the first year of the BA degree; however, as some students did not take any exams nor attended classes on a regular basis, there were some missing values. Thus, the final sample consisted of 106 students for accounting (42 EMI students and 64 non-EMI students), 115 for finance (55 EMI and 60 non-EMI) and 95 for history (34 EMI and 61 non-EMI students). A similar composition of male students (EMI 47.6%, non-EMI 48.4%) and female students (EMI 52.4% and non-EMI 51.6%) is found in the two cohorts. As for age, the average student age is around 20 years old (EMI 19.6% and non-EMI 20.07%).

One of the most important items in this study and one that helps to ensure the comparison of our data is students' university access grade. This exam, taken as an index to measure intellectual ability (Pascual et al. 2012), is compulsory for all students accessing university studies in Spain, and often conditions their chances to enrol in a specific degree. After contrasting the student results in this test, we found that the mean for the university access grade was almost identical for both groups (6.86 for EMI vs. 6.83 for the non-EMI, on a 10-point scale system).

Regarding teachers, six different Spanish-speaking lecturers in the BA degree constitute our sample; three work in the EMI strand and three in the non-EMI. There is one male teacher and five females, whose ages range from 40 to 50 years. As regards foreign language qualifications (i.e. English), the UCM has not demanded specific teacher certification, assuming that those involved in EMI teaching have sufficient foreign language competence. In the concrete case of our sample, all teachers hold English language certificates (Cambridge ESOL, TOEFL and the like) and have experience abroad in English-speaking countries, either as visiting fellows or former Ph.D. students. Moreover, when asked to self-rate their level of competence in English in a questionnaire distributed as part of a larger study, five teachers ranked themselves as C1 (CEFR) or advanced users, while one teacher ranked herself as a B2 or high intermediate user. All in all, the language requirements for EMI teachers across Europe differ considerably, and thus, while in some universities such as Copenhagen (Cancino 2011, 149–150) or Delft (Klaassen and Bos 2010, 61) special exams are designed to test the English proficiency of teachers and staff, in many others language exams are not required as yet. In terms of specific EMI training, none of the lecturers in our sample have received concrete pedagogical preparation, with the exception of some ad hoc language assistance in the form of weekly meetings with an English for Specific Purposes (ESP) specialist employed by the faculty to provide feedback on teachers' classroom materials (e.g. power point slides, glossaries, handouts, etc.) or to focus on the pronunciation of certain subject-specific terms. The UCM situation diverges noticeably from the institutional and systematic teacher support that EMI instructors in other university settings receive (see Räsänen 2011 in Finland, or Klaassen and Bos 2010 in the Netherlands) and which, in our opinion, needs to be addressed in a much more institutional and supportive manner by the UCM authorities.

Research methodology

Data gathering methods

Our study adopts quantitative research methods, based on two student questionnaire surveys. The first questionnaire, which focuses on students' linguistic background (e.g. L1, level of English, study abroad experiences, years studying English, etc.) is part of a larger research project known as CLUE⁴ (Content and Language in University Education), based at the UCM since 2006. The second questionnaire comes from the SAER group (Statistics

Table 1. Descriptive statistics of student sample.

	EMI group	%	Non-EMI group	%
Gender				
Male	20	47.6	31	48.4
Female	22	52.4	33	51.6
Age				
Mean (years)	19.69		20.07	
Std. Dev.	1.54		1.51	
University access grade				
Mean (grade)	6.86		6.83	
Std. Dev.	0.78		1.02	

Source: SAER data.

and Accounting Education Research) also based at the UCM and looks into students' demographic data (e.g. gender, age, nationality, etc.) and their learning styles (e.g. group work vs. individual work) and preferences (e.g. summative vs. formative assessment). Table 1 above summarises student demographic data. These two questionnaires (CLUE and SAER) together with students' coursework and final exam results in the three specific subjects aforementioned constitute the data for our present analysis.

Data analysis: student assessment

Students' final grades are the sum of two components: coursework (40% of the final grade) and final exam results (60% of the final grade). The coursework grade is divided, in turn, into active participation in class (5%), interim exams (10%) and seminars (25%). More specifically, active participation refers to students' preparation of classroom discussions based on the contents covered in each topic, interim exams encompass the completion of different tests, exercises or case studies, while seminars consist of one-hour sessions where students are exposed to real company case studies and problem-based learning in a group-based format. Additionally, in these seminars students are expected to prepare oral presentations on topical issues. Thus assessment for coursework is both oral and written. As for final exams, these are always in written format and include questions on the main topics and contents studied throughout the course. In all cases, the percentage allotted to coursework and final exams remains the same for both sets of students (EMI and non-EMI) in the three subject courses analysed. However, differences as to the precise criteria applied in the final evaluation of students' performance seem to be largely dependent on individual teacher decisions. Thus, to reconcile assessment criteria across subjects, especially with the implementation of EMI degrees, faculty meetings are held on a regular basis but, according to the teachers interviewed, a general consensus on how to assess individual student performance is still far from being a reality. Hence, more specific information, which was unfortunately not available to researchers when this study was conducted, on issues such as the amount and regularity of reading materials for each subject, or teachers' stance towards the assessment of (foreign) language issues, whether in classroom situations or in written assignments or final exams, would be of importance. Additionally, future research should also look into possible instances of testing 'accommodation' (see Abedi 2009) in the form of extra time provided in tests completed in a foreign language, use of dictionaries or accepting responses in the students' L1.

Table 2. Student final grades and independent samples t-test of final grades.

Group	Mean	Std. Deviation	Mean difference	Sig.
Final grade				
EMI	4.55	2.16	0.14	0.767
Non-EMI	4.39	2.08		
History				
EMI	5.30	0.23	0.23	0.448
Non-EMI	5.06	0.15		
Accounting				
EMI	4.99	0.34	0.31	0.269
non-EMI	4.68	0.31		
Finance				
EMI	3.74	0.30	0.373	0.352
Non-EMI	3.41	0.26		

Study findings

After comparing the final grades of the two sets of students, the findings show that both groups (EMI and non-EMI) obtain very similar results in the three subjects analysed, in spite of the language of instruction used. The final grades obtained by both cohorts follow an analogous tendency in all three subjects. In the case of accounting and history, there are more passing grades than failing grades in both EMI and non-EMI groups, while the tendency is reversed in the case of finance, with a higher number of students failing the subject than passing it, again replicated in EMI and non-EMI classes.

To examine whether the academic outcomes of EMI and non-EMI groups are statistically different, independent t-tests for the three subjects under scrutiny were employed. As can be seen in Table 2, by means, the final results obtained by the EMI group in all three subjects are slightly higher than in the non-EMI group but again the groups behave in a similar way, with no statistical differences between them, and achieve nearly identical outcomes.

The standardised grading system in Spain ranges from 1 to 10, (with 0–4.9 representing a fail grade; 5 to 10 a pass grade). Thus, by subjects, students obtain the highest grades in the history course (mean of 5.15), followed by accounting (mean of 4.8) and finally finance (mean of 3.57). As was mentioned before, in the specific case of finance, the average grade does not even reach the official pass grade, a result that although seemingly low, is in consonance with the average results that first-year students usually obtain in this subject.

Looking closer into the two types of assessment analysed, the tendency for both sets of students (EMI and non-EMI) is to obtain slightly higher results in the coursework than in the final exams. In other words, students seem to counterbalance lower performance in final exams with continuous work. The exception, nevertheless, is the case of history where students' coursework scores are lower than the final exam (see Figure 1), a finding that needs to be treated with caution as, although the assessment grading system is common to all three courses, the concrete decisions taken by teachers and their 'personal assessment style' were not known to us. Results for history, however, were slightly unexpected as it was thought and also expressed by students in the face-to face interviews held before final examinations, that the verbal and linguistic demands of this specific course could have a restraining effect on the overall EMI group performance.

Finally, in order to ascertain whether there was a correlation between the subject coursework and the final exams in all three subjects, the test of between-subjects effects was

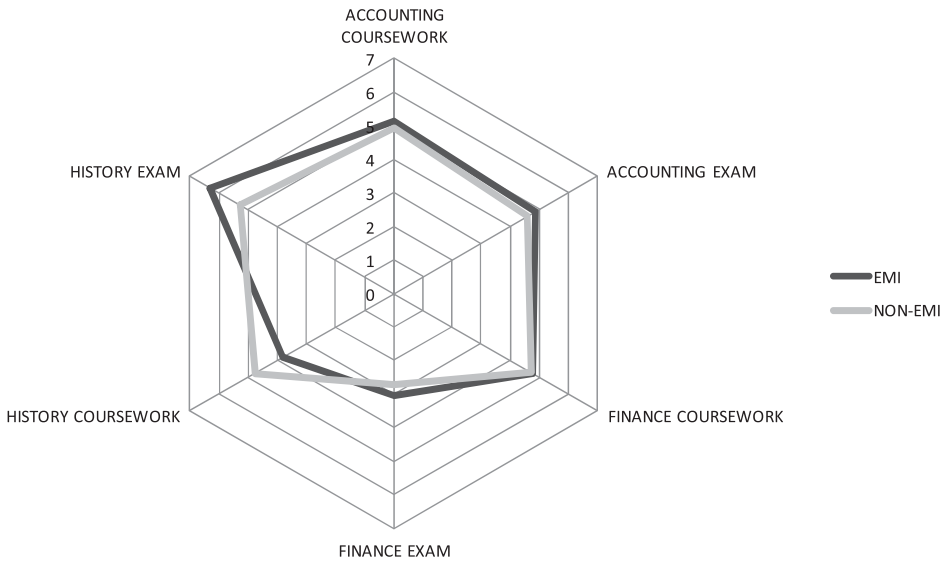


Figure 1. Coursework and final exams' results by subjects.

employed (see Table 3 below) and taking into account the final grade as a dependent variable, the partial eta square was calculated. The low results suggest that the group factor is not relevant in explaining students' academic performance in the three course subjects analysed. In addition, there seems to be a positive correlation between coursework and exams according to the Pearson coefficient. There is a statistically significant correlation for the results in accounting and finance suggesting that students who study and work hard on the coursework assignments will ultimately perform better in the final exam. However, in the specific case of finance the final exam seemed to require more effort than the coursework, as the general outcome was much lower than in the other two subjects.

Table 3. Correlation between coursework and exam by subjects.

	Coursework	Exam
Accounting		
Pearson correlation	1	0.756**
Sig. (2-tailed)		0.000
N	106	105
Finance		
Pearson correlation	1	0.638**
Sig. (2-tailed)		0.000
N	115	108
History		
Pearson correlation	1	0.032
Sig. (2-tailed)		0.760
N	95	95

**Correlation is significant at 0.01 level (two-tailed).

Discussion

The data generated by the study show that the use of English as language of instruction does not seem to have a negative effect on students' academic performance. As far as our data go, both cohorts (EMI and non-EMI) yield very similar results in their final performance, as verified in the results of coursework and final exam grades. On a more detailed level, our data even point at slightly higher grades in the case of the EMI students, although these findings are not statistically significant.

By course subjects, the question of whether students' academic performance would vary depending on the 'nature' or intrinsic disciplinary features of the subjects under scrutiny is responded to in an affirmative manner. However, contrary to expectations and to student informal comments, variation is reflected here in the form of relatively higher results for both groups (EMI and non-EMI) when compared to the other two subjects analysed (see Table 2). From a conceptual perspective, one could argue that students could be thought to perform better in the soft pure disciplines (such as history), as these are more qualitative, and enable learners to memorise contents and use explanatory resources to put forward their arguments. On the contrary, the more quantitative subjects (like finance and accounting) would require numerical competence and problem-solving skills, abilities that both sets of students seem to find more difficult to implement, especially in their first-year at university. Whatever the reasons, further research needs to look from a more qualitative perspective into the precise nature of the coursework activities and the assessment practices conducted in all three subjects, and in history in particular, so as to identify possible differences in student performance or in teacher evaluation criteria.

By assessment methods, student performance in the three subjects analysed is generally lower in final exams than in coursework. A plausible explanation may be linked to typical exam conditions, namely, exam pressure, timed and closed-book conditions, and a major focus on content knowledge rather than on skill or task-oriented questions that seem to be more typical of coursework activities (Rivero et al., forthcoming; Yorke, Bridges, and Woolf 2000). In addition, it could be speculated that final exams usually cover extensive material and are more comprehensive whereas coursework breaks content up into smaller units of study that are generally easier to learn and ultimately may diminish student test anxiety. This observed divergence between student coursework and examination performance, which seems to be common in tertiary education (see Bridges et al. 2002), takes the issue back to the concept of validity, which inevitably raises the eternal question of whether exams really assess what teachers want them to assess (Yorke et al. 2000), a question we can only take further in prospective research with the collaboration of the business staff involved.

Concluding remarks and implications

The overarching aim of this paper was to describe the effect that the teaching of disciplinary knowledge in English would have on students' academic performance (EMI group) when compared to their counterparts' in Spanish (non-EMI group). Our study confirms that, as far as the data show, there are no statistically significant differences between EMI groups and non-EMI groups in the three subjects under scrutiny: Financial Accounting I, Principles of Business Financial Management and Economic History. In other words, the use of English as the language of instruction does not seem to affect negatively students' academic performance as evidenced in coursework and final exam results. Concerning disciplinary differences, both sets of students seem to perform slightly better in history than in accounting and finance, a result that could be explained in relation to possible disciplinary

discourse distinctions among the subjects examined and/or qualitative variation in the way teacher assessment is implemented. This last question on assessment is a complex one in all educational contexts, but probably even more so in EMI settings, as issues of foreign language correction tie inextricably with content achievement. By and large, we strongly believe that programmes that use a foreign language as means of instruction need to provide more than ever hard evidence of student results in terms of content learning, otherwise this educational approach will be seriously questioned.

With respect to pedagogical implications, the paper's attention to possible disciplinary differences across subjects from a discourse and assessment perspective, will hopefully serve to raise awareness of the role of language in learning, especially among the content specialists working in EMI settings, just as it has enabled the business teachers taking part in this study to gradually change their original view of disciplinary discourse simply as a glossary of specialised terms into a 'meaning-making system' (Martin 2009, 11).

In any case, the results of this study need to be treated with great caution given the limited size of data, the focus on a single institution and our reduced access to classroom practices. We also acknowledge that assessment is only *one aspect* of the complex set of variables that configure student performance in any educational setting. However, at the same time, it is one that can be quantified and allows for empirical research, which after all was the original purpose of this research.

Regarding our own prospective work, we have already collected the same students' grades in their second year (2011–12) in other course subjects in order to conduct longitudinal research. The objective is to ascertain whether EMI academic performance indeed matches that of the non-EMI peers throughout the whole degree or whether this may vary as students make progress into higher courses and develop conceptual knowledge and language skills. In this line, it is our intention to analyse the English language outcomes of the EMI group so as to monitor students' expected improvement in the target language. As with academic results, a longitudinal study of their language competence would enable us to examine the effect that the use of English as a language of instruction may have on students' proficiency. Additionally, attention to learners' academic literacy in the target language would also be required in the form of specific disciplinary language exams.

To conclude, our work has attempted to cast some light on the under-researched area of tertiary student academic performance in the hope that it will help to overcome a-priori judgements and opinions that very often view (foreign) languages as a 'problem' rather than an opportunity.⁵ We hope that our findings, especially encouraging for those working at the UCM, may also serve to pave the way for other teachers, disciplines and universities in different settings so that similar studies can be conducted in the near future.

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Notes

1. The acronym EMI is used purposefully here as it describes this specific learning context whereby the focus is on *content* rather than on the integration of both content and language (or ICL). Section 2 will address this distinction again.

2. In these 'transmission-oriented approaches' (Coyle 2008: 101-102), attention to foreign language issues gradually diminishes as students' expected competence in the foreign language increases. Nevertheless, this assumption (although often followed in different higher education settings) is not necessarily true and should be treated with great caution.
3. Although considerable differences may exist along the soft/applied – hard/applied continuum, for descriptive purposes, accounting and finance will be viewed together since they are both examples of *applied* disciplines and neither of them occupies extreme positions in the soft/applied scale.
4. The CLUE project investigates the impact that internationalisation and EMI programmes have on higher education in the Madrid/Spanish context. Using a multidimensional research design, it has gathered as data: semi-structured teacher and student interviews and questionnaires, surveys on lectures and reading comprehension and classroom video-recorded observations of lectures and seminars. Since 2010 the original team has worked in collaboration with the SAER project (Statistics and Accounting Education Research), based at the School of Economics and Business at the UCM, to provide a more interdisciplinary approach to the issue of university internationalisation and multilingualism.
5. For an interesting account of the debate on language and identity in English-medium universities, from an ethnic minority student perspective, see *Language and Education No. 24, No.1* 2009, special issue entitled 'Imagining higher education as a multilingual space'.

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