

Questions in English as a Medium of Instruction versus non-English as a Medium of Instruction Lectures¹

Las preguntas en clases magistrales impartidas en inglés como medio de instrucción (EMI) frente a las clases no impartidas en inglés como medio de instrucción (non EMI)

Carmen Maíz Arévalo^{2*}
Universidad Complutense de Madrid

Abstract

University lectures are by far the most common method of teaching at Spanish universities. More recently, however, this knowledge transmission has become increasingly interactive. Students' participation and verbal output becomes especially important in classes where the language of instruction is not the students' mother tongue but a second or foreign language such as English since it gives them the opportunity to produce output in that second language. One of the ways to allow for students to participate is the lecturer's use of questions. The aim of this study is to compare the same lecturer's use of questions in her mother tongue or L1 (Spanish) versus her lectures in English (L2). More specifically, I intended to answer the following research question: Is the frequency and type of questions affected by the language of instruction (Spanish vs. English)? It is hypothesized that questions will be more frequent in English so as to boost verbal interaction between the lecturer and the students and allow them to produce verbal output in English. To test this hypothesis, a group of six lectures by the same lecturer (3 in English and 3 in Spanish) was analyzed, involving two groups of students taking the same subject albeit in one of these two languages. According to expectations, results show that English lectures display a slightly higher frequency of questions than those in Spanish.

6

¹ Received: November 10th 2016/ Accepted: April 17th 2017

² cmaizare@filol.ucm.es

However, a qualitative analysis also reflects interesting aspects of the type (and characteristics) of questions in English.

Key words: Questions, English as medium of instruction (EMI), Tertiary education

Resumen

La clase magistral sigue siendo el método más común de enseñanza en las universidades españolas. Sin embargo, se ha experimentado un giro hacia una transmisión de conocimientos más interactiva en los últimos tiempos. La participación y producción oral de los alumnos cobra mayor relevancia cuando las clases se imparten en una lengua diferente (L2) a la lengua materna de los alumnos (L1), ya que se les da la oportunidad de emplear dicha L2 en un contexto más oral. Una de las maneras en que se permite participar a los estudiantes es el uso de preguntas por parte del profesor. Este estudio tiene como objeto comparar el uso de tales preguntas por parte de un profesor en clases impartidas tanto en su L1 (español) como en la L2 (inglés). Más concretamente, mi objetivo es dar respuesta a la siguiente pregunta: ¿se ven la frecuencia y el tipo de preguntas afectadas por el idioma empleado para impartir la clase (L1 frente a L2)? Mi hipótesis es que las preguntas serán más frecuentes en L2 con el fin de potenciar la interacción verbal entre el docente y sus estudiantes, permitiéndoles una mayor producción oral en inglés. Para testar dicha hipótesis, se analizó un grupo de seis clases magistrales impartidas por la misma profesora (3 en inglés y 3 en español) y recibidas por dos grupos de alumnos que cursan la misma asignatura, pero en uno de estos dos idiomas. Los resultados muestran que, parcialmente de acuerdo con lo esperado, las clases en L2 despliegan una proporción de preguntas algo mayor que las impartidas en L1. Sin embargo, un análisis de tipo más cualitativo también refleja interesantes conclusiones sobre el tipo (y las características) de las preguntas en L2.

Palabras clave: Preguntas, Inglés como medio de instrucción, educación universitaria

Resumo

A aula presencial continua sendo o método mais comum de ensino nas universidades espanholas. Porém, recentemente ocorreu uma virada com relação à transmissão de conhecimentos mais interativa. A participação e produção oral dos alunos adquire uma maior relevância quando as aulas são transmitidas em uma língua diferente (L2) da língua materna dos alunos (L1), posto que se dá pra eles a oportunidade de empregar a L2 em um contexto mais oral. Uma das maneiras em que os estudantes têm autorização de participar é com uso de perguntas por parte do professor. Este estudo tem o objetivo de comparar o uso de tais perguntas por parte de um professor em aulas transmitidas tanto na sua L1 (espanhol) quanto na L2 (inglês). Com mais exatidão, o meu objetivo é responder a pergunta a seguir: observa-se a frequência e o tipo de perguntas afetadas pelo idioma empregado para dar a aula (L1 diante da L2)? A minha

hipótese é que as perguntas ocorrerão com mais frequência em L2, com o fim de potencializar a interação verbal entre o docente e seus estudantes, permitindo-lhes uma maior produção oral em inglês. Para testar essa hipótese, foi analisado um grupo de seis aulas presenciais transmitidas pela mesma professora (3 em inglês e 3 em espanhol) e recebidas por dois grupos de alunos que cursam a mesma disciplina, mas em um destes dois idiomas. Os resultados sinalam que, parcialmente de acordo com o esperado, as aulas em L2 desdobram uma proporção de perguntas algo maior que as transmitidas em L1. Embora isso, uma análise de tipo mais qualitativa também reflète interessantes conclusões sobre o tipo (e as características) das perguntas em L2.

Palavras Chave: Perguntas, inglês como meio de instrução, educação universitária

Introduction

University lectures are by far the most common method of teaching at university level. This is usually the case in Spanish universities where lectures are the traditional, cost-effective and most practical way of transmitting information to large numbers of undergraduates. In recent decades, however, this knowledge transmission has experienced a change from a more monological nature towards a more interactive, conversational style where both the lecturer and the students co-construct the discourse (Ferris and Tagg, 1996; Flowerdew, 1994; Hyland, 2009; Morell, 2004, 2007; Sánchez García, 2016, among others) even if the control of the conversational floor still lies in the lecturer's hands. In Northcott's (2001, pp. 19-20) words, an interactive lecture can be defined as:

A classroom learning event for a large (more than 20) group of students primarily controlled and led by a lecturer and including subject input from the lecturer but also including varying degrees and types of oral participation by students.

More recent studies on academic spoken discourse also reveal that interaction helps develop a good rapport between the lecturer and students; therefore, creating a more relaxing atmosphere that enhances participation by the latter (Crawford Camiciottoli, 2004; Fortanet, 2004; Morell, 2004a, 2004b, 2007; Ibrahim et al. 2009, among others). Participation thus becomes a welcome class routine where knowledge is not simply transferred from the teacher's notes to those of the students'.

However, the popularity recently gained by interactive lectures does not merely respond to a change in teaching styles or the desire on the lecturers' part to create a more relaxing atmosphere for students. It is also triggered by the deeply rooted belief that a more conversational, interactional style fosters the students' comprehension and knowledge acquisition which are, after all, the main aims of any lecture (Hall and Verplaetse, 2000; Seedhouse, 2004; Walsh, 2006, *inter alia*). As pointed out by Walsh (2006, p. 36), "conversation is the essence of all classroom dialogue, the prime force through which meanings are negotiated, concepts explained and understood, exchanges of opinion given". This notion of interaction as the main motor for comprehension goes back to Vygostky's socio-cultural theory (1978). Social constructivist pedagogy places the emphasis on the active interaction between teachers and students in order to co-construct knowledge and promote understanding as opposed to the more traditional transmission pedagogy, where the focus lies on "transmitting information and skills articulated in the curriculum directly to students" (Cummins, 2005, pp. 113-114).

Enhancing interaction can become more challenging if the language of instruction is not the learners' mother tongue but a second language (L2). In these educational contexts like CLIL or classes where English is the Medium of Instruction (EMI henceforth), a more interactive style plays a vital role since it can help these learners to improve both their levels of understanding and their linguistic competence in the L2 by allowing them to produce their own output (Dalton-Puffer, 2006; De Graaff et al., 2007; Flowerdew, 1994; Flowerdew and Miller, 1996; Griffiths, 1990; Ibrahim et al., 2009; Nikula et al. 2013; Núñez and Dafouz, 2007; Sánchez García, 2011; 2016; Thompson, 2003; among others).

Interaction, however, is only real if lecturers both wish to provide for interaction and, more importantly, if they are aware of how to be genuinely interactive. One of the ways to allow for students to participate is the lecturer's use of questions (Walsh, 2006; Bamford, 2005; Crawford Camiciottoli, 2008; Dafouz & Sánchez García, 2013; Sánchez García, 2011; 2016) since, as argued by Chuska (1995, p. 7), "all learning begins with questions. Questions cause interactions: thought, activity, conversation or debate".

The aim of this study is to contrast the use of questions by the same lecturer in her L1 (Spanish) versus her L2 lectures (English). More specifically, I intend to answer the following research question: Is the type of questions (and their frequency) affected by the language of instruction? It is hypothesized that the type of questions employed (see Section 2) will vary according to the language of instruction, with each type being also affected with regard to its frequency. To that purpose, a university lecturer of Economics was video-recorded while delivering six lectures in the same subject ("Financial Accounting"), three of them in Spanish and the rest in English. Data was then manually analyzed from a quantitative³ and qualitative point of view. Finally, a reflective feedback interview with the lecturer herself intended both to shed light on qualitative aspects of her teaching that the analyst might not have borne in mind and to raise the lecturer's awareness of her own classroom discourse so as to attain more effective instruction.

³ Given the limited size of the dataset, however, the quantitative analysis does not include statistic tests but focused on the tendencies observed regarding frequency.

Literature Review

In his analytical framework, Walsh (2006, p. 67) distinguishes 14 interactional features⁴. Remarkably, four of these features are questions, which reaffirm their privileged status when it comes to promoting interaction between lecturers and their students. Questions have long been considered as the most appropriate instrument to promote interaction since they require a response from the students when performed by the teacher and vice versa. As Ibrahim et al. (2009, p. 96) point out, “questions during lectures serve as structuring devices to drive the talk forward, to introduce new topics and generally direct the focus of the interaction.”

The importance of questions as specially interacting mechanisms explains the broad literature they have generated in second language education for several decades (e.g. Banbrook and Skehan, 1989; Cullen, 1998; White and Lightbrown, 1984; among many others). This interest has more recently extended also to CLIL and EMI contexts from primary and secondary education to tertiary education (e.g. Dalton-Puffer, 2006, 2007; Llinares and Pascual-Peña, 2015; Menegale, 2011; Nikula, 2007; Nikula et al., 2013; Pascual-Peña, 2010; Sánchez-García, 2010, 2016; to mention just a few). Since results still do not allow for generalizations (Nikula et al., 2013, p. 78), the present study intends to contribute to this area by providing additional data regarding the use of questions in EMI classes in tertiary education, more specifically in university lectures where English is used as the medium of instruction to teach contents other than language (e.g. economics and finance).

Even if all questions share the fact of being performed in the interrogative mood (or in the declarative mood with rising intonation); the functions they perform in the discourse are markedly different. Following previous taxonomies (e.g. Dalton-Puffer, 2007; Sánchez-García, 2010; 2016), it is possible to distinguish five types in the corpus under study: rhetorical questions, display questions, comprehension checks, referential questions and clarification checks.

Rhetorical questions are those where the teacher asks a question for which s/he is not expecting any response whatsoever and hence does not provide listeners with any time to answer them. The main function of

⁴ These interactional features of the Self-evaluation Teacher Talk (SETT) framework are: scaffolding, direct repair, content feedback, extended wait-time, referential questions, seeking clarification, confirmation checks, extended learner turn, teacher echo, extended teacher turn, turn completion, display questions and form-focused feedback.

these questions is to serve as a discursive landmark for the introduction of new concepts or to make listeners think about a particular concept. In rhetorical questions, the speaker may provide the answer herself or the answer “is left up in the air” (Sánchez-García, 2010, p. 23). Examples from the corpus are (1) and (2)⁵, both produced by the teacher, who asks and immediately answers her own question without producing any pause between the question and its answer, which shows they are not intended for the students to answer but as a rhetorical device:

(1) [L1] What are the names that we use to call loans? Load debt, bank debt

(2) [L4] *¿Tiene algún significado que yo ponga los gastos al haber y los ingresos al deber? No tiene ningún sentido.* [Does it mean anything that I put the expenses in Debit and the income in Credit. It doesn't make any sense.]

Display questions are those where the information is already known by the teacher (Dalton-Puffer, 2007). Morell (2004, pp. 4-5) defines these questions as those which serve “to verify students’ knowledge”. Display questions encourage interaction in the sense that students are expected to provide a response. However, it is questionable whether they foster real interaction in as far as they do not involve real communication (although see Boyd and Rubin (2006) and Lee (2006)). As argued by Menegale (2011, p. 86), a major drawback of display questions is that by

using this type of questions, teachers can keep control of the lesson procedure and of the time. Yet, as a result, with the answer being nearly a univocal solution, students could be afraid of responding if unsure of the response and this unease can limit their participation to a greater extent.

Display questions characteristically follow the IRF (initiation-response-follow-up move) structure found in general educational discourse (Sinclair and Brazil, 1982), as illustrated by examples (3) and (4) below, where the teacher (T) produces the initiation move as a question (to which she knows the answer as the content expert) and students (SS) reply. The students’ correct response is positively evaluated by the teacher in the third move or follow-up:

⁵ All the Spanish examples are immediately followed by their translation into English. In all the cases, each example is preceded by the number of the lecture [L...] where the example comes from.

(3) [L1] T: the company... purchases land and cash. Is ok? So, land, what it is a land?

SS: asset

T: assets, ok [T nods approvingly] current or not current, what do you think?

SS: not current

T: not current assets, ok. Ok? Ok, another more? Eh, Iñigo, please, read it.

(4) T: *Si tuviera el dinero limitado y hubiera que pagarle a alguno, ¿a quién le pagarías antes? ¿A los proveedores o a los acreedores?*

S1: *A los acreedores.*

T: (She looks at the students and smiles) *¿A quién?*

S2: *A los proveedores.*

T: *A los proveedores. Porque ellos son los que te están generando el beneficio luego si tú vendes. ¿Lo ves?*

[T: If I had limited money and had to pay somebody, whom would you pay before? The providers or the creditors? / S1: the creditors. / T: (She looks at the students and smiles). who? / S2: the providers. / T: the providers. Because they are the ones who are generating the benefit if you sell. Do you see it?]

Comprehension checks are questions where the teacher monitors whether the students are following her explanations. They are usually performed linguistically in the corpus by formulaic expressions like “is it ok?” or the Spanish “¿vale?”. Example (5) illustrates another of these formulas in Spanish (“¿lo veis?” –i.e. do you understand?).

(5) [L4] T: [overlaps with student] *¡Las mismas! Pero si no hago nada, sí, de acuerdo. Pero algo habrá que hacer, ¿no? Porque mucha casualidad, mucha mucha casualidad tiene que pasar para que las existencias iniciales coincidan con las finales. ¿lo veis? Entonces, lo que tenemos que hacer aquí* [circles one part of the blackboard] *es lo que se llama la regularización ¡qué nombre más feo! ¿verdad? Regularización de las mercaderías. [The same ones! But if I don't do anything, yes, okay. But something must be done, musn't it? Because it is a huge chance, very very big chance for initial stock to coincide with final stock. Do you see it? Then, what we have to do here is what is called regularization. What an ugly name, isn't it? Merchandizing regularization.]*

As illustrated by (5), students are not really expected to respond to comprehension checks verbally as shown by the fact that the lecturer goes on holding the conversational floor without giving any response time. A non-verbal response –e.g. a nod –is enough to show students are indeed following the explanation. If they are not, they can produce a clarification request (see below).

In contrast to the former types, *referential questions* are genuine questions to which the teacher does not know the answer and hence trigger authentic output from the students (Musumeci, 1996; Sánchez-García, 2010). Examples (6) and (7) illustrate this type of questions in both languages:

(6) [L1] T: No, first here. And you have to tell him the ... what are you doing? Tell.

S: (inaudible) [talks to the teacher and the other student at the blackboard]

(7) [L5] T: *Ah jaja, buena pregunta. ¿Tú qué crees?* (1')

S: *Que no.* [T: Ah, haha, good question. What do you think? /S: I think it doesn't.]

Referential questions are particularly interactive since they promote real communication between the student(s) and the lecturer insofar as a real question is taking place and the student usually has to provide a more “creative” answer rather than simply remembering a piece of information or answering with a yes-no answer (which can even be non-verbal). As stated by Dafouz and Llinares (2008, p. 51), “display questions generate interactions that are typical of pedagogic or didactic discourse, while referential questions generate interactions typical of social communication”. Despite their highly interactive potential, however, referential questions tend to be sparsely used in classroom discourse (cf. Pascual Peña, 2010; Sánchez-García, 2010). For example, Pascual Peña (2010) found that only 17% of the questions used in her corpus were referential. However, not all referential questions boost interaction to the same extent. In this respect, it is worth pointing out the distinction between convergent and divergent referential questions. In Menegale’s words (2008, p. 112):

14

The difference between the convergent and divergent question is clear. Whereas the convergent question, also referred to as ‘closed question’ (Pica, 1994) as it is information-seeking in nature and results in simple elicitations of factual information, does not require original thought or critical reflection and the possible answers are limited, generally short and recall previously

memorized information, a divergent question requires the application of knowledge, not just the recalling of information.

Hence, divergent referential questions not only lead to high order thinking skills but also allow for more extensive students' output in the L2. On the other hand, convergent referential questions may ask for information unknown to the teacher but lead neither to the student's complex thinking processes nor longer conversational turns.

Clarification requests can be produced either by the teacher or the student and take place when communication has partially or totally failed and needs repairing, as illustrated by example (8), where the teacher had not heard the student's comment and asked for clarification:

(8) [L5] T (T has not heard S's question) ¿Perdona, cómo dices?
[Excuse me, what did you say?]

In this case, the teacher had not properly heard the student's response and she sought for clarification, so that the student had to repeat his answer. It could be argued, hence, that clarification requests are not interactive mechanisms proper since they are intended as conversational repair strategies when, for example, noise impedes correct hearing of the previous utterance (Schegloff, 1992).

For the sake of clarity, Table 1 summarizes the different types of questions and provides a brief definition as well as an example of each type:

Type of question		Definition	Example
Rhetorical questions		The teacher asks and answers the question	"And how do we call it? We call it debit"
Display questions		The teacher knows the answer beforehand	"How do we call it?"
Comprehension check		The teacher monitors whether the students are following her explanations	"Do you follow?"
Referential questions	Divergent	The teacher asks an open question for which she does not know the answer, giving the student the chance to develop their critical thoughts	"So, what's your opinion about this?"
	Convergent	The teacher asks a closed question for which she does not know the answer, not giving the student the chance to develop their critical thoughts	"Sorry, what is your name again?"
Clarification checks		They are used to repair communication when broken by external circumstances (e.g. noise)	"Sorry? I couldn't hear you, can you say that again?"

Table 1. Types of questions

Methodology

The following section describes the methodology employed in the current study. More specifically, it starts by describing the participants and why they were chosen to be involved in the study. Secondly, it focuses on the data-gathering process itself and describes the corpus compiled and employed in the present study.

Participants

This study involves two groups of undergraduate students and their common lecturer. Each group consisted of approximately 50 students of an average age of 18-19 years old. These students were doing its first year of the degree in Economics and Finance at the Complutense University of Madrid in Spain. This degree is part of the university's pilot program where the same degree is being taught in Spanish with a simultaneous pilot version in English, which means both groups of students follow the same contents albeit in different languages. In this case, they also share the same teacher in the subject Financial Accounting as well as the same amount of teaching hours, with a total of four hours per week (two days a week).

Besides the students involved, this study focuses mainly on the lecturer. She is a Spanish female teacher who taught Economics at the Complutense University for more than a decade. Together with other colleagues, she took part in this pilot program without any special training, any previous experience of teaching in an L2 or any extra salary. However, she was extremely motivated and took part in this pilot project for five years. Before the actual study took place, there was a prior informal interview with the lecturer, where she was informed of the research and she expressed her motivation and willingness, in her own words, "to know if I'm doing things right". This led her to volunteer as a participant in our research group's project and be video-recorded during her lectures⁶. As for the students, all of them were asked for their consent before recording the lectures. They all expressed no disagreement to have their lectures recorded. In addition, all personal identification was carefully avoided to protect their privacy.

⁶ The author would like to express her sincere gratitude to the lecturer who collaborated in this research. Many thanks go too to her research colleagues for their support and constructive criticism as well as to the anonymous reviewers for their insightful comments.

Data collection and corpus description

As already pointed out, the lecturer and students were previously informed about the research, and they all consented to be recorded. Hence, six parallel lectures on the same topic (three in English and three in Spanish) were video-recorded by this researcher and other members of the research group to which she belongs. To avoid altering the normal development of the lectures as much as possible, the camera was placed in a side of the lecture room, facing the teacher and with the majority of the students sitting with their backs to the camera. Researchers recording the sessions were present but refrained from speaking or moving around with the camera, which was fixed in the same position throughout all the sessions. This posed the advantage of not altering the normal developing of the lecture since both students and the lecturer admitted forgetting the camera was there after a while. However, it entailed a major disadvantage since the lack of mobility affected sound quality when the lecturer was distant from the camera and some of the students' responses (especially those far from the camera) were inaudible. In this case, this has also been indicated in the transcription in square brackets (i.e. [unintelligible]), as have pauses and other paralinguistic aspects.

The choice in the number of lectures followed Seedhouse's credo that "classroom research [...] has considered between five and ten lessons a reasonable database" (2004, p. 87). The data gathered in this way amount to a total of 540 minutes and a word count of over 46,000 words. As already mentioned, transcription was kept simple for the sake of clarity and only pauses, inaudible segments or other paralinguistic information (e.g. the teacher raising her voice in anger when students were not paying attention) have been indicated by means of square brackets where this information is given. To ensure transcription was as loyal and valid as possible, several researchers compared their transcriptions and also counted on the lecturer's help to complete unclear fragments. To ease comprehension, the lecturer also provided the researchers with the visual aids she used in her lectures (e.g. Power Point presentations). Table 2 below summarizes the description of the corpus employed in the analysis in terms of number of words per language:

<i>Language used</i>	<i>N° of lecture</i>	<i>N° of words</i>
<i>English</i>	Lecture 1 [L1]	7,731
	Lecture 2 [L2]	4,433
	Lecture 3 [L3]	10,315
<i>Spanish</i>	Lecture 4 [L4]	6,052
	Lecture 5 [L5]	4,079
	Lecture 6 [L6]	14,067

Table 2. Description of the corpus

As can be seen, not all the lectures have the same number of words. This is due to the fact that, in some lectures where students were required to do exercises and tasks in class (e.g. lectures 2 and 5), there was more student collaboration in smaller groups whilst the teacher was monitoring their progress rather than lecturing as such.

Data Analysis and Interpretation

Once transcribed, a manual search for questions in the dataset was carried out. Context (including co-text) was determinant to classify questions into the already mentioned five types: rhetorical questions, comprehension checks, display questions, referential questions and clarification checks. Manual search was favored over (semi)automatic programs given that some elements may clearly be multifunctional and an automatic search might fail to identify these different functions. For example, “ok?” can be used as a comprehension check, a referential question or clarification check depending on the context. To measure the global frequency of questions over other speech acts, the total number of utterances was compared with the number of questions and the corresponding ratio was thus calculated (see table 3). Secondly, the frequency of the different types of questions was calculated taking into account the total number of questions in the corpus (see table 4).

18

	<i>N° of utterances per lecture</i>	<i>N° of questions</i>	<i>Ratio</i>
<i>Lecture 1</i>	748	360	48%
<i>Lecture 2</i>	500	133	27%
<i>Lecture 3</i>	1,223	438	36%
<i>Lecture 4</i>	708	209	29.5%
<i>Lecture 5</i>	456	162	35.5%
<i>Lecture 6</i>	1,347	491	36%
TOTAL	4,982	1,793	36%

Table 3. Ratio of questions per total number of utterances

Results

In the corpus under study, it is possible to distinguish these five types according to whether they involve more or less interaction between the lecturer and the students (see Table 1). Inspection of the data shows that results prove to be partially expected since the lecturer employed different types of questions in L1 and L2. More specifically, the following tendencies regarding the type of questions used were observed as illustrated by Table 4 below:

Type of question	Rhetorical	Comprehension check	Display	Referential	Clarification check	Total
English	5.5%	39%	40%	7%	8.5%	100%
Spanish	15.5%	45.5%	33%	3.5%	2.5%	100%

Table 4. Type of questions used in the English and Spanish lectures

Close observance of the data reveals that *rhetorical questions* are much more frequently used by the lecturer in Spanish than English (15.5% and 5.5% respectively). As already mentioned, however, rhetorical questions do not trigger interaction proper but serve as discursive device. This higher frequency of rhetorical questions in the Spanish dataset may be due to Spanish language academic style where rhetorical questions are to be expected and characteristic of such a style (Vázquez, 2006). Examples (9) and (10) illustrate rhetorical questions in Spanish and English, respectively:

(9) [L2] T: *En el examen no no podemos hacer la estructura que nos dé la gana, tenemos que hacer esta estructura, ¿por qué? Porque es la estructura de la ley.* [In the exam we can't, we can't do the structure we feel like, we have to follow this structure, why? Because it is the legal structure].

(10) [L3] T: How? The answer is how I record for these expenses in the books of my company? No, so we we don't know. And the second question: what kind of information do you need to record in transaction? [...] Do you know it? That's that's that is what we are going to learn today.

In (9), the teacher asks “why?” and immediately provides the answer herself, which shows this is intended as a rhetorical question. In (10) she does the same with “how?”, answering her own question. However, after her second question in the same conversational turn (“And the second question: what kind of information do you need to record in transaction?”), she pauses slightly as marked by [...] and tries

to elicit the question from the students (“Do you know it?”). However, she does not give any time to answer and uses her second question to frame the contents of today’s lecture (“That’s that’s that is what we are going to learn today”). In this latter case, it seems the teacher initially intended the question as a display question but by not providing enough thinking time for the students to answer, it turned into another rhetorical question which helped frame the lesson’s main contents.

With regard to *display questions*, results show that the teacher employs them slightly more often in English than in Spanish (40% and 33% of the cases). In fact, they are the most common type of question in the English dataset and the second one in the Spanish sample. This is to be expected, since her questions are primarily targeted at retrieving from the students the fundamental concepts and the way they are expressed in L2. Thus, even if the class is not a language class (or even a CLIL class proper), one of the mechanisms characteristic of EFL lessons is mirrored in these EMI lectures, as illustrated by examples (11) and (12) below, in English and Spanish lectures respectively, where the display question by the lecturer is the initiation move (I), followed by the response move by the students (R) and, finally, a follow-up by the teacher (F). This is the classic I-R-F sequence of classroom discourse (Sinclair and Brazil, 1982):

(11) [L2] T: Here you have the search strategy. How many?

SS: Three

T: Three.

(12) [L4] T: ¿Cuál es forma jurídica más usual en España? [What is the most common legal regulation in Spain?]

S: *La sociedad limitada* [the limited liability company]

T: *La sociedad limitada*. [the limited liability company]

More interestingly, *comprehension checks* behave against expectations, since the teacher uses them slightly more often in Spanish (45.5%) than in English (39%). This is totally unexpected since it would seem more reasonable for the teacher to check comprehension when lectures take place in L2 rather than in the students’ mother tongue. Quite remarkably, when asked in the feedback interview why she thought she acted this way, the lecturer claimed that students learning in L2 had the advantage of being what she called “blank slates” meaning that they did not come to class with the “vices” regarding terminology they had in their mother tongue. In other words, many of the concepts she explains in her classes had their Spanish colloquial counterpart

with, sometimes, a totally opposed meaning. For example, the Spanish word *activo* has a variety of meanings in Spanish but its technical meaning in this field is “Economic resources owned by a business that are expected to benefit future operations” (Moreno Alemay, 2008, p. 28). This polysemy, far from helping students understand better, may hinder their comprehension of the subject in their mother tongue. In contrast, learning such technical terms directly via a second language may actually help the students remember jargon better, since they are not influenced by their mother tongue. Moreover, students may be more motivated to learn technical vocabulary given that, as Moreno Alemay (2008, p. 28) points out:

When students hear these examples, they realize the importance of studying the subject of accounting in a foreign language, and feel they are building their vocabulary, because all these are words seldom learned in a languages course.

Regarding *referential questions*, inspection of the data shows that those employed in the English lectures double those employed in Spanish (7% versus 3.5%, respectively). However, a qualitative analysis reflects that some of these questions may not really be referential questions. In fact, on the rare occasions where the lecturer employs these questions, she does so in two main contexts. On the one hand, she uses these questions in order to confirm students’ names:

(13) [L6] T: *¿Eras Carolina también?*

“Was your name also Carolina?”

(14) [L1] T: Sorry, I forgot your name. What is your name?

On the other hand, the lecturer also seems to employ these questions as indirect requests –e.g. to ask for silence, to tell students off or to ask for a volunteer, as in (15) and (16):

(15) [L3] T: Silence, please. What happens today?

(16) [L4] T: No, first here. And you have to tell him the ... what are you doing? Tell.

S: [inaudible] [talks to the teacher and the other student at the blackboard]

Hence, it could be argued that, even though the teacher does not know the answer, these are convergent referential questions where students can do with very short answers (i.e. their names) or even non-verbal responses (i.e. going to the blackboard to do the exercise at hand) rather than having a longer turn to produce their own output.

Finally, *clarification requests* are slightly more frequent in English than Spanish. When used by the teacher (0.5% in English versus 0.4% in Spanish), they act as repair mechanisms when she has not heard the student's answer⁷, as in (17) and (18):

(17) [L3] S: the income statement?

T: what?

S: the income statement

(18) [L4] S: [inaudible]

T: *¿Perdón?* [Excuse me?]

However, clarification requests are typically carried out by students when they have a question related to the previous teaching or instructions, as exemplified by (19) and (20):

(19) [L3] S: ...So can we... decide XX?

T: No, it's depending on the... the evolution of the content. I mean I have plan around the second, the second week of March

S: ...Ok.

(20) [L5] T: *Ahora dice que, durante el ejercicio dos mil nueve, compra cincuenta lavadoras, vamos a hacer la compra, multiplicamos eh las cincuenta lavadoras por ciento cincuenta...*

[Now it says that, during the year 2009, he buys 50 washing machines, we are going to go shopping, we multiply eh, the 50 washing machines for 150...]

S: *¿por qué es un número distinto?* [why is it a different number?]

T: *Sí, porque lo he cambiado. Luego si queréis hacemos ese, pero quería hacerlo más sencillo todavía. ¿vale?* [Yes, it is, because I have changed it. We can do that one later, but I wanted to do it even easier, ok?]

In terms of frequency, clarification checks by students are more common in English than in Spanish (8% versus 2.1% respectively). This may be due precisely to the fact that it is harder for them to follow the class in a foreign language and they feel more need to clarify doubts and make sure they have understood correctly than when the lecture is delivered in their mother tongue. Quite interestingly, however, close

⁷ The large size of the classroom and its orientation (teacher-fronted) makes it hard to hear students' comments, especially if they are sitting at the back. This was also a major limitation when video-recording the classes, since students' comments and answers were mostly inaudible (except for those sitting next to the video-camera).

inspection of the data also reveals that students' clarification checks follow a different pattern in Spanish compared to English. In the English lectures, students usually wait for the teacher's turn completion (or what learners intuitively regard as a relevant transition point). This is illustrated by extracts (21) and (22), where clarification checks by students have been marked in bold for the sake of clarity:

(21) T: credit, yes, thank you. Reserves and all the equity accounts are the credit balance. Just see, please, in this place (points at board), capital includes the, huh, credit balance, ok?

S: **so, is it the balance [pause]?**

T: yes, but we always use BALANCE, which means the difference between all the amounts in the debit and all the amounts in the credit. And the difference is the balance and ALWAYS the assets, always the assets account has debit balance. ALL the equity and liability account have credit balance, ALWAYS.

S: **[longer pause] (the student asks an inaudible question)**

T: yes!

S: **and the assets are called debit?**

T: yes, and expenses always the in the expenses account ALWAYS have debit balance, cause it's similar, the assets and the expenses are very similar. [...] Be careful, credit, always credit it is an asset cause is the money that you lend to another person, to other huh firm

S: like clients

T: no, other firm, it's money, money that you. When you, when you ask for a LOAN, you receive money so you have a debt and we call bank debt.

S: **and the credit?**

T: and the credit is when you give money to other firm, this right we call credit.

S: ah

(22) S: *¿Y el precio del coste es el mismo siempre o cómo?* [S: and the costing price is always the same or how is it?]

T: *Ah jaja, buena pregunta. ¿Tú qué crees?* [ah, haha, good question. What do you think?]

S: **Que no.** [I don't think so]

T: *Vete a la vida real. La...* [Think about real life. The...]

S: **Que no.**

In contrast to English (see example 21), where students wait for the lecture to reach turn completion, in the case of Spanish, the students tend to overlap with the lecturer (as in example 22) and do not wait for turn completion (“Vete a la vida real. La... / que no”). It is difficult to determine whether these overlaps are due to the Spanish fast conversational pace, where it is customary for overlapping and interruptions to take place (Nikleva, 2009; Gallardo-Paúls, 1993) or to the fact that students feel more confident when speaking their mother tongue than a foreign language. A combination of both factors seems to be the most plausible explanation. Confidence in the use of their mother tongue would also explain why students in the English lectures apparently take longer to ask for clarification than their counterparts.

Conclusions

The present study intended to provide an answer to the following research question, repeated here for the sake of clarity: Is the frequency and type of questions affected by the language of instruction (Spanish vs. English)? It was initially hypothesized that questions would be more frequent in English (L2) so as to boost verbal interaction between the lecturer and the students and allow them to produce verbal output in English so as to ease comprehension and acquisition of the contents and the language. In addition, it was also expected that the type of questions employed would vary according to the language of instruction. Table 3 presented the total number of utterances per lecture together with the ratio of questions. Graph 1 below is a visual summary of the ratio of questions per language of instruction:

24

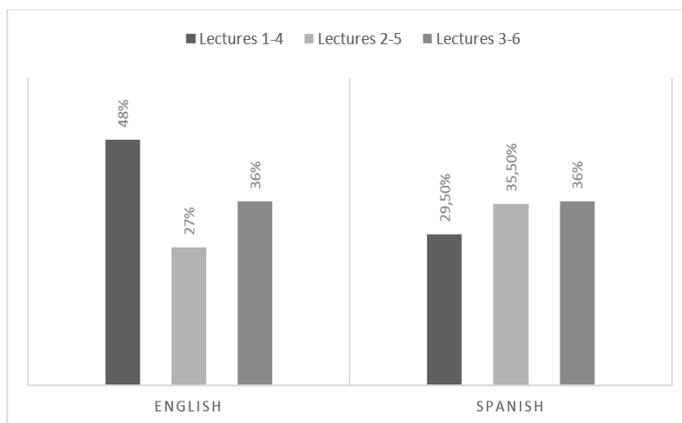


Figure 1. Global frequency questions depending on language of instruction

Inspection of the data reveals that the first hypothesis was only partially confirmed since, except for lectures 1 and 4, where lecture L1 (in English) presented a higher number of questions than its Spanish counterpart (L4), in the rest of the cases, the number of questions was the same (lectures L3 and L6) or slightly higher in Spanish (lectures L2 and L5). As for the second hypothesis, that the language of instruction (English or Spanish) plays a role in the type of questions used, results showed the confirmation of this hypothesis. Hence, the lecturer seems to favor some types in her Spanish lessons and other types in the lectures she carries out in English.

More specifically, rhetorical questions were more numerous in Spanish than in English (15.5% versus 5.5%, respectively) possibly due to the fact that the Spanish academic style traditionally favors the use of rhetorical questions as a way to organize discourse and to keep the audience's attention. With regard to comprehension checks, these occurred more frequently in Spanish (45.5%) than in English (39%). This result was unexpected since it was anticipated that a lecture in a second language seems to entail more difficulty for the students and hence the teacher might feel more prone to checking comprehension. When interviewed after the data had been analyzed, the lecturer herself explained this higher frequency of comprehension checks might be a result of the negative interference of Spanish, where most of these technical terms have an informal, ordinary meaning, usually remarkably different (if not totally opposite). This forced her to make sure the students comprehended the actual technical meaning; hence the more frequent use of comprehension checks in Spanish than in English. As for display questions, they were the type most commonly employed in English, maybe to make sure the students learned the technical vocabulary involved in the subject, which was new to most of them as they had never come across such terms in their general English lessons (Moreno Alemany, 2008).

With regard to referential questions, they were more frequent in English than in Spanish, doubling their occurrence in the second language. Even though it is difficult to explain this result and the lecturer herself was not aware of such a difference, it could be a positive way of letting students produce more output in English to improve their knowledge of the second language. In any case, however, referential questions were still low in frequency and the lecturer commented that she would try to increase their use in future lessons, showing that research can have very positive effects when combined with future action(s) in the classroom (Lasagabaster and Sierra, 2011).

Clarification checks happened to be more frequent in English maybe because of the higher difficulty to follow these lectures in a language which is not the participants' mother tongue (either the lecturer' or the students'). Furthermore, clarification checks by students also displayed an interestingly different pattern in English and Spanish, with more overlap in Spanish as opposed to English. This may be due to self-confidence in the mother tongue and the intuitive grasping of the dissimilar conversational structures of Spanish and English, with the former displaying more overlapping and the second being more prone to wait for the transition relevant points (Tsui, 1994).

Finally, it is important to acknowledge an important limitation to the present study such as the fact that it focuses on just one lecturer's discourse. However, this also allows for controlling some variables such as age, linguistic background, teaching experience, since we are dealing with the same teacher. Furthermore, the three English lectures duplicate the three Spanish lectures, which also avoids other variables (content taught, academic field, etc.) from playing a role. Finally, even if generalizations are not possible in a limited study like the present one, we can still observe certain trends that can provide some tips towards most effective teaching styles based on self-observation. In fact, after the study was carried out, a reflective interview with the lecturer showed her willingness to implement future changes in her lessons such as the use of more referential questions, proving the importance of action research in the EMI classroom (Lasagabaster and Sierra, 2011).

References

- Bamford, J. (2005). Interactivity in academic lectures: The role of questions and answers. *Dialogue within discourse communities: Metadiscursive perspectives on academic genres*, 28, 123-145.
- Banbrook, L., & Skehan, P. (1989). Classrooms and display questions. *ELT documents*, 133, 141-152.
- Boyd, M., & Rubin, D. (2006). How contingent questioning promotes extended student talk: A function of display questions. *Journal of Literacy Research*, 38(2), 141-169.
- Chuska, K. R. (1995). *Improving Classroom Questions: A Teacher's Guide to Increasing Student Motivation, Participation, and Higher-Level Thinking*. Bloomington: Phi Delta Kappa Educational Foundation.
- Coyle, D. (2011). *Teacher education and CLIL methods and tools*. Retrieved from <http://www.cremit.it/public/documenti/seminar.pdf>.
- Crawford Camiciottoli, B. (2004). Interactive discourse structuring in L2 guest lectures: Some insights from a comparative corpus-based study. *Journal of English for Academic Purposes*, 3(1), 39-54.
- Cullen, R. (1998). Teacher talk and the classroom context. *ELT Journal*, 52(3), 179-187.
- Cummins, J. (2005). La utilización de la tecnología en aulas lingüísticamente diversas: estrategias para promover el aprendizaje lingüístico y el desarrollo académico en contextos bi/trinlingües. In D. Lasagabaster and J. M. Sierra (Eds.), *Multilingüismo, Competencia lingüística y nuevas tecnologías* (pp. 111-128). Barcelona: ICE-Horsori.
- Dafouz, E., & Llinares, A. (2008). The role of repetition in CLIL teacher discourse: A comparative study at secondary and tertiary levels. *International CLIL Research Journal*, 1(1), 52-61.
- Dafouz, E., & Sánchez, D. (2013). Does everybody understand? Teacher questions across disciplines in English-mediated university lectures: An exploratory study. *Language Value*, 5(1), 129-151.
- Dalton-Puffer, C. (2006). Questions in CLIL classrooms: Strategic questioning to encourage speaking. *Current trends in the development and teaching of the four language skills*, 187-213.
- Dalton-Puffer, C. (2007). *Discourse in content and language integrated learning (CLIL) classrooms*. Amsterdam: John Benjamins Publishing.

- De Graaff, R., Jan Koopman, G., Anikina, Y., & Westhoff, G. (2007). An observation tool for effective L2 pedagogy in content and language integrated learning (CLIL). *International Journal of Bilingual Education and Bilingualism*, 10(5), 603-624.
- Ferris, D. and Tagg, T. (1996). Academic oral communication needs of EAP learners: What subject-matter instructors actually require. *TESOL Quarterly*, 30(1), 31-57.
- Flowerdew, J. (Ed.) (1994). *Academic listening: Research perspectives*. Cambridge: Cambridge University Press.
- Flowerdew, J. and L. Miller. (1996). Lectures in a second language: Notes towards a cultural grammar. *English for Specific Purposes*, 15(2), 121-140.
- Fortanet, I. (2004). The use of 'we' in university lectures. Reference and function. *English for Specific Purposes*, 23, 45-66.
- Gallardo-Paúls, B. (1993). La transición entre los turnos conversacionales: silencios, solapamientos e interrupciones. *Contextos XII*, 21-22, 189-220.
- Griffiths, R. (1990). Speech rate and NNS comprehension: A preliminary study in time-benefit analysis. *Language Learning*, 40(3), 311-336.
- Hall, J. and Verplaetse, L. (Eds.). (2000). *Second and foreign language learning through classroom interaction*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Hyland, K. (2009). *Academic Discourse: English in a Global Context*. London: Continuum.
- Ibrahim, N., K. S. Gill, R. M. Nambiar and Hua, T. K. (2009). CLIL for science lectures: Raising awareness and optimizing input in a Malaysian University. *European Journal of Social Sciences*, 10(1), 93-101.
- Lasagabaster, D., & Sierra, J. M. (2011). Classroom observation: desirable conditions established by teachers. *European Journal of Teacher Education*, 34(4), 449-463.
- Lee, Y. A. (2006). Respecifying display questions: Interactional resources for language teaching. *Tesol Quarterly*, 40(4), 691-713.
- Llinares, A., & Pascual Peña, I. (2015). A genre approach to the effect of academic questions on CLIL students' language production. *Language and Education*, 29(1), 15-30.

- Menegale, M. (2011). Teacher questioning in CLIL lessons: how to enhance teacher-students interaction. In C.E. Urmeneta, N. Evnitskaya, E. Moore & A. Patiño (Eds.), *Educació plurilingüe. Experiències, research & polítiques*, 2 (pp. 83-96). Barcelona, UAB Servei de Publicacions.
- Morell, T. (2004a). *La interacció en la classe magistral*. San Vicente del Raspeig: Publicacions de la Universitat de Alicante
- Morell, T. (2004b). Interactive lecture discourse for EFL students. *English for Specific Purposes*, 23(3), 325-338.
- Morell, T. (2007). What enhances EFL students' participation in lecture discourse? Student, lecturer and discourse. *Journal of English for Academic Purposes*, 6(3), 222-237.
- Moreno Alemany, P. (2008). English Content-Based Approaches to Teaching Accounting. *Latin American Journal of Content & Language Integrated Learning*, 1(1), 26-34.
- Musumeci, D. (1996). Teacher-learner negotiation in content-based instruction: Communication at cross-purposes? *Applied Linguistics*, 17(3), 286-325.
- Nikleva, D. G. (2009). La cortesía en la enseñanza del español como lengua extranjera. Recursos no verbales: aplicación de los códigos semióticos. *MarcoELE: Revista de didáctica*, 9, 11-15.
- Nikula, T. (2007). Speaking English in Finnish content-based classrooms. *World Englishes*, 26(2), 206-223.
- Nikula, T., Dalton-Puffer, C., & García, A. L. (2013). CLIL classroom discourse: Research from Europe. *Journal of Immersion and Content-Based Language Education*, 1(1), 70-100.
- Northcott, J. (2001). Towards an ethnography of the MBA classroom: A consideration of the role of interactive lecturing styles within the context of one MBA programme. *English for Specific Purposes*, 20, 15-37.
- Núñez, B. and Dafouz, E. (2007). Lecturing through the foreign language in a CLIL university context: linguistic and pragmatic implications. *Vienna English Working Papers*, 16(3), 36-42.
- Pascual Peña, I. (2010). Teachers' questions in CLIL contexts. *Vienna English Working Papers*, 19(3), 65-71.
- Pica, T. (1994). Questions from the language classroom: Research perspectives. *Tesol Quarterly*, 28(1), 49-79.

- Sánchez García, D. (2010). *Classroom interaction in University Settings: The case of questions in three disciplines*. MA Thesis. Retrieved from <http://eprints.ucm.es/12793/>
- Sánchez García, D. (2016). *A constrative analysis of Spanish and English-medium instruction in tertiary education: teacher discourse strategies in a spoken corpus*. PhD Dissertation. Madrid: Universidad Complutense de Madrid.
- Schegloff, E. A. (1992). Repair after next turn: The last structurally provided defense of intersubjectivity in conversation. *American journal of sociology*, 97(5), 1295-1345.
- Seedhouse, P. (2004). *The Interactional Architecture of the Second Language Classroom: A Conversational Analysis Perspective*. Oxford: Blackwell.
- Sinclair, J. M., & Brazil, D. (1982). *Teacher talk*. Oxford: Oxford University Press.
- Thompson, S.E. (2003). Text-structuring metadiscourse, intonation and the signaling of organization in academic lectures. *Journal of English for Academic Purposes*, 2(1), 5-20.
- Tsui, A. B. (1994). *English conversation*. Oxford: Oxford University Press.
- Vázquez, G. (2006, November). Un análisis didáctico del discurso académico español como contribución a la movilidad estudiantil europea. Paper presented at III Congreso Internacional de Español para Fines Específicos, Utrecht.
- Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Cambridge: Harvard University Press.
- Walsh, S. (2006). *Investigating Classroom Discourse*. London: Routledge.
- White, J., & Lightbrown, P. M. (1984). Asking and Answering in ESL Classes. *Canadian Modern Language Review*, 40(2), 228-44.

Author

***Carmen Maíz-Arévalo** is professor of Pragmatics and English at the Complutense University of Madrid, having obtained her PhD in English Linguistics in 2001. Her fields of interest are mainly pragmatics and intercultural pragmatics; more specifically, speech act theory and verbal (im)politeness in computer-mediated communication. Her most recent publications include the articles: “‘Small talk is not cheap’: phatic computer-mediated communication in intercultural classes”, published in *Computer Assisted Language Learning* (2017); “Jocular mockery in computer-mediated communication: A contrastive study of a Spanish and English Facebook community” in the *Journal of Politeness Research* (2015), “Just click ‘Like’”: Computer-mediated responses to Spanish compliments”, published in the *Journal of Pragmatics* in 2013, “‘Was that a compliment?’ Implicit compliments in English and Spanish”, also in the *Journal of Pragmatics* in 2012 or “‘You look terrific!’ Social evaluation and relationships in online compliments”, co-authored with Antonio García-Gómez and published in *Discourse Studies* in 2013. She also acts as a reviewer for different journals such as the *Journal of Pragmatics*, *Sage Open*, *Verbeia (Journal of English and Spanish Studies)* or *Revista Iberoamericana de Tecnologías del Aprendizaje*. Besides her research and teaching, Carmen Maíz-Arévalo is currently the academic secretary of the department of English Linguistics at the Complutense University.