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Textual and interpersonal pragmatic markers in full- and semi-English-medium instruction: Their acquisition and the impact of learners' motivational profiles

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Abstract

This doctoral dissertation has three main aims: firstly, to investigate the acquisition of pragmatic markers (PMs); secondly, to investigate the effect of either full- or semi-English-medium instruction (EMI) course on learner's PM use; and thirdly, to identify whether or not there are any relationships between individual learner differences (IDs) and PM use and EMI study. To do so, three studies were carried out. The first one examined the effects of a semi and full-EMI undergraduate program on the participants' frequency and variety of interpersonal and textual PMs. The second study investigated the distribution of textual PM use of full-EMI learners and native speakers, and, identified similarities and differences between the functions learners and natives attribute to PMs. The third study had a two-fold objective: on the one hand, it compared full-EMI and semi-EMI learners according to motivational orientation, attitudes towards English, foreign language anxiety, and enjoyment; and on the other, it investigated the relationship between such IDs and PM use. The study consisted of a cross-sectional sample of 39 full-EMI and 33 semi-EMI participants in second and third year of study plus 10 native speakers (NSs) (used as baseline data). Regarding the instruments, oral data were collected via a monologue and an interaction task to elicit PMs use. Then, in order to collect data on IDs, a series of questionnaires were administered. A functional-pragmatic approach was taken to the analysis of PMs.

As for the results of the first study, the findings showed a significant increase in the overall frequency and variety of types of PMs used from year two to year three. The full-EMI group used PMs at a significantly higher frequency and wider variety when compared to the semi-EMI group. Neither group reached baseline levels for the use of interpersonal PMs, whereas both groups displayed a higher use of textual PMs compared to the NSs. Results from the second study showed that EMI learners produced causal, contrast, sequential and topic shift/digression markers similarly to NSs. Finally, regarding the third study, results showed that full-EMI and semi-EMI groups did not differ according to motivational orientation; however, there were significant differences between learner's motivations depending on year of study, with third-year learners being more ought to self motivated than second-year learners. Other findings revealed that strong ought to L2 self motivational orientation learners demonstrated an increased frequency of PM use. In addition, level of enjoyment correlated to an increased use of PMs, and learners with positive attitudes towards English also reported stronger ideal L2 selves.

Resumen

La presente tesis doctoral tiene tres objetivos principales: el primero, investigar la adquisición de marcadores pragmáticos (MPs); el segundo, investigar los efectos de estudiar grados impartidos en inglés mediante inmersión total y parcial (en inglés English Medium Instruction-EMI); y el tercer objetivo es identificar si existe alguna relación entre las diferencias individuales (DIs) y el uso de MPs en el contexto de EMI. Para lograr dichos objetivos, se realizaron tres estudios distintos. El primero examinó los efectos de la inmersión total y parcial sobre la frecuencia y variedad de uso de MPs interpersonales y textuales. El segundo estudio investigó la distribución de uso los MPs textuales realizada por estudiantes pertenecientes al grupo de inmersión total y por nativos de lengua inglesa. Así pues se pudieron identificar similitudes y diferencias entre las funciones de los MPs asignadas por aprendices y nativos. El tercer estudio tuvo un doble objetivo. Por una parte, se comparó un grupo de inmersión parcial con un grupo de inmersión total en cuanto a motivaciones, actitudes hacia el inglés, ansiedad hacia las lenguas extranjeras, y nivel de disfrute con el aprendizaje de lenguas extranjeras. Por otra parte, se investigó la relación entre dichas DIs y el uso de los MPs. La tesis doctoral consta de un estudio transversal en el que se incluyeron 39 participantes pertenecientes a un grado de inmersión total y 33 participantes pertenecientes a un grado de inmersión parcial, además de un grupo de 10 nativos ingleses (utilizado éste último como grupo de control). En cuanto a los instrumentos, se recogieron datos orales a través de dos tareas: una tarea monológica y otra dialógica a fin de analizar el uso de MPs. Los datos sobre DIs se obtuvieron a través de una serie de cuestionarios. A la hora de analizar los MPs se adopta un enfoque de pragmática-funcional.

En cuanto a los resultados del primer estudio, constatamos un aumento de la frecuencia y variedad de uso de MPs del segundo al tercer año de estudios. El grupo de inmersión total usó significativamente más MPs que el grupo de inmersión parcial, en relación a la frecuencia y variedad. Ninguno de los dos grupos mostró cambios significativos en cuanto a marcadores interpersonales. Los resultados del segundo estudio mostraron que los participantes de inmersión total reprodujeron los marcadores textuales causales, de contraste, secuenciales y de cambio de tema/digresión de manera muy parecida a la distribución de los nativos inglés parlantes. Finalmente, los resultados del tercer estudio mostraron que no había ninguna diferencia significativa en cuanto a motivación entre el grupo de inmersión total y el de inmersión parcial.

Sin embargo, se identificaron diferencias significativas entre sus motivaciones según el año de estudio, los participantes de tercer año mostrando una motivación del tipo "ought to self" que los estudiantes de segundo año. Los resultados también mostraron que aquellos participantes con un mayor "ought to self" utilizaban MPs con más frecuencia. Además, los resultados demostraron una correlación entre el nivel de disfrute con el aprendizaje de la segunda lengua y uso más elevado de MPs. Asimismo, se correlacionó también los participantes con actitudes positivas hacia el inglés con un mayor desarrollo del "ideal L2 selves".

Resum

Aquesta tesi doctoral té tres objectius principals: el primer, investigar l'adquisició dels marcadors pragmàtics (MPs); el segon, investigar els efectes de dos graus universitaris impartits en anglès mitjançant la immersió lingüística total i parcial (context English Medium Instruction-EMI); i el tercer objectiu és identificar si existeix una relació entre les diferències individuals (DIs) i l'ús dels MPs en el context de EMI. Per tal d'aconseguir aquests objectius, s'han realitzat tres estudis. El primer examina els efectes de la immersió total i parcial sobre la freqüència i varietat d'ús de MPs interpersonals i textuals. El segon estudi investiga la distribució d'ús dels MPs textuals realitzada per estudiants pertanyents a un grup de immersió total i per nadius de llengua anglesa. Així es van poder identificar similituds i diferències entre les funcions dels MPs assignades per aprenents i nadius. El tercer estudi va tenir un doble objectiu. D'una banda, es va comparar un grup d'immersió parcial amb un grup d'immersió total en relació a les motivacions, actituds envers l'anglès, ansietat envers la llengua estrangera, i el nivell de gaudi amb l'aprenentatge de la llengua estrangera. D'altra banda es va investigar la relació entre les abans esmentades DIs i l'ús dels MPs. La tesi doctoral consta d'un estudi transversal en el que es van incloure 39 estudiants d'un grau universitari impartit mitjançant la immersió total en anglès i 33 estudiants pertanyents a un grau universitari impartit mitjançant la immersió parcial en anglès. A més a més, es van incloure un grup de 10 nadius anglesos (utilitzat com a grup control). En quant els instruments, es van recollir dades orals mitjançant dues tasques per a obtenir l'ús de MPs: una tasca monològica i una dialògica. Per a obtenir les dades sobre les DIs, es van utilitzar una sèrie de qüestionaris. La tesi va seguir un enfocament de pragmàtica funcional per a l'anàlisi dels MPs.

Pel que fa als resultats del primer estudi, els participants van augmentar la freqüència i varietat d'ús de MPs del segon al tercer any d'estudis. El grup d'immersió total va utilitzar significativament més els MPs que el grup d'immersió parcial, en relació a la freqüència i varietat. Cap dels grups va experimentar canvis en quant a marcadors interpersonals. Els resultats del segon estudi van mostrar que els participants d'immersió total van produir els marcadors textuals d'algunes funcions (com causativa, contrast, seqüencial, canvi de tema /digressió) de manera molt semblant a la dels nadius anglesos. Finalment, els resultats del tercer estudi van mostrar que no hi havia cap diferència significativa entre el grup d'immersió total i parcial en quant a motivació. Es van identificar però diferències quan es van examinar els participants per any d'estudis. Més

específicament, els participants de tercer any van mostrar més motivació del tipus "ought to self" que els de segon any. Els resultats van mostrar també que aquells participants amb una motivació del tipus "ought to self" van augmentar la freqüència d'ús de MPs. A més a més, els resultats van demostrar una correlació entre el nivell de gaudi i ús més elevat de MPs. Tanmateix es van correlacionar els participants amb actituds positives envers l'anglès amb un major desenvolupament del "ideal L2 selves."

List of Original Publications

Chapter 3

Ament, Jennifer, Carmen Pérez-Vidal & Júlia Barón Parés. (2018) **The effects of English-medium instruction on the use of textual and interpersonal pragmatic markers.** *Pragmatics.* (Accepted: date of expected publication December 2018)

Chapter 4

Ament, Jennifer, Barón-Parés, Júlia & Pérez-Vidal, Carmen. Decision Pending. (September 2018). **On the use of textual pragmatic markers, a comparison between native speakers and English-medium instruction learners**. Special edition: Pragmatic Markers and their Functions: Applied Perspectives, *The Journal of Pragmatics*.

Chapter 5

Ament, Jennifer, Júlia Barón Parés, & Carmen Pérez-Vidal. Under Revision. (September 2018). **Individual differences and pragmatic learning in English-medium instruction contexts**. *System.*

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List of abbreviations

ANCOVA	Analysis of co-variance
CEFR	Common European Framework
CLAN	Computational Language Analysis
CLIL	Content and language integrated learning
EMI	English-medium instruction
FLA	Foreign language anxiety
Full-EMI	Full-English-medium instruction
ICL	Integrated content and language
ICLHE	Integrated content and language in higher education
IM2	EMI group year 2
IM3	EMI group year 3
INT	Interaction task
ISLA	Instructed second language acquisition
L1	First language
L2	Second language
MON	Monologue task
N/S	Not significant
NNS	Non-native speaker
NS	Native speaker
PM	Pragmatic Marker
Semi-EMI	Semi-English-medium instruction
SIM2	Semi-EMI group year 2
SIM3	Semi-EMI group year 3
SLA	Second language acquisition
HE	Higher education

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1. Introduction

I have always been interested in language learning, I have studied many languages to different degrees and under different circumstances and for different reasons each time. This in addition to my childhood and later on adult life of moving around from one city or country to the next every two or three years, something which showed me that in addition to the language we speak there are important ways of communicating beyond the words we say. It is this underlying message and will to connect to those around us that we are really trying to communicate through the use of clumsy and chunky grammars from whatever language it is that we speak. This was my inspiration to study Linguistics, and later on to become an English teacher. I have experienced speaking English and not being understood or understanding a native English speaker of another variety, not due to the words or grammatical structure they chose to use, but instead due to either a misinterpretation or complete failure to notice the pragmatic move or force of my interlocutor's message or vice versa. On the other hand, I have experienced this a million times as a second language speaker, knowing that grammatically I am performing well, but realizing that I am not understood in the way I would like to be, or the opposite, due to being immersed in the culture I perform reasonably well pragmatically, but with terribly inaccurate grammar or vocabulary. These types of communication incidences that I am sure we have all experienced on one level or another, be it in our own language or a foreign one, are moments where the distinction between grammar and pragmatics becomes visible to the untrained eye. Even though most linguists know that both grammar and pragmatics are always there playing their roles in a constant interaction and balance to create what we know as communication. It is this phenomenon that I wanted to investigate for my Ph.D. project. Due to my history as both a language learner and an English language teacher for many years, I was interested in the link between the 'language' that we teach or learn and how we choose to use it in authentic communication situations. This served as the main inspiration and spark of interest in my chosen field of study. Of course, a more focused topic needed to be chosen in addition to a specific linguistic level, feature and learning context. I was drown to study the pragmatic feature of pragmatic markers (PMs) by English-medium instruction (EMI) students, and how individual learner differences (IDs) might influence or interact with these two factors.

Thus, we now turn to the main goal and outline of this dissertation. The doctoral project began by identifying three broad aims. The first one was to make a contribution to the approach of the study of PMs in second language acquisition (SLA). While it is true that there is an ever-growing body of research on PMs, there is still no agreement on their classification or study. Furthermore, there is little known regarding the order of acquisition of these markers nor what the learning context effects might be on the acquisition of PMs. Thus, by analyzing PMs according to their functions, it might be possible to apply the recent theories which focus on the functions that PMs carry out in a given context, rather than grammatical features of these markers, and by doing so make way for future studies of this kind on the acquisition of PMs. The second broad aim was to attempt to find some answers regarding the language acquisition outcomes we can expect as a result of participation in EMI programs. Language acquisition in EMI is a subsection of EMI research that is extremely scarce and in desperate need of more attention. It is also clear that EMI in Europe is a worthy area of investigation due to, both, its rapid growth in recent years, as well as because of its political, social and economic implications on the countries, institutions, faculty, and students involved in it. The third broad aim of the study was to investigate the interaction of IDs, specifically focusing on such factors as motivations, emotions, and attitudes towards English, with both EMI and the acquisition of PMs. Due to the increasing precedence of English in universities, IDs have the potential to either hinder or enable learners to perform better or worse than their peers during their studies and, due to the position of English in the world today, this could have serious positive or negative impact on the trajectory of one's professional life. Because of the central role of English in higher education (HE) understanding the role IDs play in the participation in EMI programs as well as the role they play in the acquisition of PMs could help provide insight and adequate support for EMI stakeholders. Other intentions of potential applications of this research would be as follows: firstly, to inform language educators regarding the implicit acquisition pattern of PMs among university students, which may aid in the implementation and explicit instruction of such items in language classrooms. Secondly, to inform EMI stakeholders regarding language outcomes as a result of EMI, which could help improve the implementation of EMI language support programs at such institutions.

In order to accomplish the above mentioned goals of this doctoral thesis, three different studies, published in three different articles, were designed and carried out. Firstly, the effect of EMI on the production of PMs was analyzed. Two groups of learners (a full- and a semi-EMI

group) and a native speaker (NS) group participated in this study. They were recorded performing both monologic and interactive tasks. These data were analyzed in a broad manner, textual and interpersonal markers were tagged, but the specific subfunctions of the PMs were not analyzed. The results of this study are presented in Chapter 3, which was submitted to the journal *Pragmatics* and accepted for publication in March 2018. It is to appear published in that journal in December of 2018. See Appendix H for the status of publication of this article. The second article, presented in Chapter 4, was submitted for publication as part of a special issue dedicated to the research of the functions of PMs to of the *Journal of Pragmatics*. We were notified of the special issue's acceptance in June 2018 but each contribution is currently undergoing peer review and we do not have an expected date of publication. See Appendix I for the status of publication for this article. This study aimed to investigate PMs in more depth than the first article was able to. Textual markers were analyzed in greater detail, and only data from EMI learners compared to NSs were used rather than in the previous study where data from semi-EMI learners were also analyzed. This analysis was different in that each PM was coded according to its function to see whether there was a difference according to the use of textual PMs between two different groups of EMI learners and NSs. Finally, to investigate the effect IDs might have on EMI learners (or the effect EMI might have on IDs). The data that were collected via motivational questionnaires were analyzed. Data from both full- and semi-EMI participants were used and the differences between full-EMI and semi-EMI learners as well as on how learner motivational profiles can change longitudinally from the second to the third year of study were reported. The data were then tested to determine whether or not there were any relationships between different motivational profiles and PM use. This article is presented in Chapter 5, it was submitted to the linguistics journal *System* in May 2018 and it has been reviewed and the author was requested to make revisions which have been done and the article is currently under revision. See Appendix J for the status of publication of this article.

In addition to these publications, the author of this thesis wrote and submitted three other articles over the course of the doctoral program. One of which was published in the *Higher Learning Research Communications* in 2015 entitled 'Linguistic outcomes of English-medium instruction programmes in higher education: a study on Economics undergraduates at a Catalan university'. This publication was based mainly on the candidate's Master's thesis which served as a preparation for the doctoral study. The second article 'The acquisition of discourse markers in the English-medium instruction context' served as the pilot study to this doctoral research project

and appears in the EuroSLA study series' (2018) volume 1, entitled *Learning context effects: study abroad, formal instruction and international immersion classrooms.* The author of this thesis also served as one of the editors of the edition. The third publication 'A focus on the development of the use of interpersonal pragmatic markers and pragmatic awareness among English-medium instruction learners' is a contribution to a volume in the Peter Lang Linguistic Insights series entitled *Learning second language pragmatics beyond traditional contexts.* This chapter has been double blind peer reviewed and has been accepted but no date of publication has been announced as of yet. The article takes an in-depth look at pragmatic awareness and its correlation to PM use and pragmatic competence.

This doctoral thesis is structured in the following manner: firstly, following this introduction (Chapter 1), Chapter 2 is devoted to an overview of the relevant literature on the topic under examination. In section 2.1 a brief introduction to the field of pragmatics is offered. This literature review section then deals with the three aspects which are most relevant to the research questions addressed in the three empirical studies included in this dissertation: Pragmatic markers, EMI learning contexts and individual learner differences. In order to deal with pragmatics, section 2.1.1 includes an introduction of the notion of pragmatic competence, and how this competence is connected to communicative competence and the use of PMs. This then sets the stage for introducing the main theories of pragmatics in SLA in section 2.1.2. where second language (L2) pragmatics will be presented. Following this, a brief review of L2 pragmatics research is provided, specifically highlighting studies relevant to this dissertation in section 2.1.3. In particular, section 2.1.3.1. focuses on the factor of IDs in L2 pragmatic learning, and section 2.1.3.2. focuses on the factor of the learning context in relation to L2 pragmatic learning. Then, pragmatic markers are introduced in section 2.2. This section emphasizes the role of PMs in communication and goes on to describe the development of their study over time. In order to do this, an overview of the different theoretical approaches to the study of PMs are described, before focusing on the functional pragmatic approach, in section 2.2.1, which is the approach taken in this dissertation. Then, interpersonal and textual markers are distinguished and described briefly in sections 2.2.2. and 2.2.3 respectively. Following this, previous research investigating the acquisition of PMs is reviewed in section 2.2.4. Specifically, any studies that have focused on learning contexts similar to EMI or have taken a functional approach are highlighted. This then leads the reader into section 2.3. which begins by introducing the EMI context. Specific emphasis is put on the social, political

and economic impacts this shift in HE has on the stakeholders. This, along with different implementations and models of EMI are presented in section 2.3.1. Following this, a description of the features of this learning context and rationale for why it might be considered a context for language acquisition are mentioned in section 2.3.2. After that, a review of the research in this field thus far is presented in section 2.3.3. This is then followed by mention of any studies which have measured language outcomes from participation in such a type of linguistic immersion in section 2.3.4. Then, to introduce the third factor investigated in this dissertation, the field of individual differences in SLA is discussed in section 2.4. A review of the current theories and empirical literature is provided with a special focus on motivations, attitudes, enjoyment, and anxiety. This chapter concludes by identifying the gap in the research, a short motivation and statement of the contribution this doctoral research would like to make. Then, in section 2.5. the research questions are introduced followed by the hypotheses resulting from the literature review chapter. The three studies are then presented in their entirety in three respective subsequent chapters.

The first study, presented in Chapter 3, examines a semi and full-EMI undergraduate program and measures their effects on the EMI students' oral output. Specifically, it focuses on the acquisition of PMs by measuring four variables, the overall frequency of use, the variety of types, the use of textual PMs, and the use of interpersonal PMs. Oral data were collected via a monologue and an interaction task. The study is cross-sectional with 39 full-EMI and 33 semi-EMI participants in second and third year of study plus 10 native speakers used as a baseline measurement for comparison. Results show a significant increase in the overall frequency and variety of types of PMs used from year two to year three. The full-EMI group used PMs at a significantly higher frequency and wider variety when compared to the semi-EMI group. Neither group reached baseline levels for use of interpersonal PMs, and, both groups displayed a higher use of textual PMs compared to the NSs.

The second study, presented in Chapter 4, aims at describing the distribution of PM use of learners and native speakers, and, to identify similarities and differences between the functions learners and natives attribute to PMs. To do this, the effect of increased contact with English, via EMI, on the use of textual PMs in learner's oral communication was explored. A functional-pragmatic approach was taken to the analysis of PMs. Textual PMs were the focus due to the high

frequency of these markers in the EMI setting. Participants were second-year (N=23), and third-year (N=18) business undergraduates, and a NS control group (N=10). Data were collected through two oral tasks. Results indicate that the groups performed similarly on causal, contrast and sequential functions and that the NS produced significantly more continuers, and elaboration markers than the EMI groups and significantly less opening and closing of discourse markers. The results suggest that EMI learners produced causal, contrast, sequential and topic shift/digression markers similarly to NSs and that this setting might be more conducive to the acquisition of these markers, and this to a higher degree than to the acquisition of other types. Indeed, EMI seems to be less conducive to the learning of other markers such as elaboration markers or the use of opening and closing discourse markers.

The third study, presented in Chapter 5, has two aims: first, it compares full-EMI and semi-EMI learners according to ought to L2 self motivational orientation (Dörnyei, 2009), ideal L2 self motivational orientation, attitudes towards English, foreign language anxiety, and enjoyment. Second, it investigates the relationship between such IDs and PM use. Despite the recognized need for more investigation into IDs and pragmatics in EMI settings, few studies have been carried out in the field. In order to fill this gap, the researcher studied 96 second and third-year undergraduate students enrolled in either a semi- or full-EMI program. Instruments included a series of questionnaires to analyze IDs and a monologue and an interaction task to elicit PMs. Results show that EMI and semi-EMI groups did not differ according to motivational orientation; however, there were significant differences between learner's motivations depending on year of study, with third-year learners being more ought to self motivated than second-year learners. Other findings revealed that strong ought to L2 self motivational orientation learners demonstrated an increased frequency of PM use. In addition, level of enjoyment correlated to an increased use of PMs, and learners with positive attitudes towards English also reported stronger ideal L2 selves.

Following the three studies, the reader is led to Chapter 6, which contains the general discussion and conclusions. Section 6.1. begins by providing a summary of the most important findings. Then, the findings regarding the main themes of the dissertation are provided and discussed while addressing each respective research question. Firstly, the acquisition of PMs is discussed incorporating the theories presented in the introductory chapters (section 6.2.). This section also includes the discussion of the impact of EMI on the acquisition of PMs as the two

themes were found to be inseparable. Then, the findings regarding the ID factors and their connection to EMI and PM learning is presented in section 6.3. Then, the implications and contribution of the studies are discussed in section 6.4. This is then followed by a reflection on the limitations of the study and some suggestions for future research directions, which are provided in section 6.5. before finally turning to the main conclusions of the doctoral thesis in section 6.6.

2. Literature Review

2.1. **Pragmatics**

This section begins with an introduction to pragmatics and then focuses on L2 pragmatics. The concepts of sociopragmatics and pragmalinguistics are defined and described. Then in section 2.1.1. pragmatic competence is introduced and the connection between pragmatic competence and PM use is presented. Section 2.1.2. introduces the theories that have been useful in interpreting L2 pragmatics, cognitive, social and dynamic theories specifically. Finally, in section 2.1.3. previous research on L2 pragmatic learning is reviewed, followed by a focus on the factors of IDs (section 2.1.3.1) and context of learning (section 2.1.3.2).

> Pragmatics is known as language use in context, it has been described as:
>
> The study of language from the point of view of users, especially of the choices they make, the constraints they encounter in using the language in social interaction and the effects their use of language has on other participants in the act of communication. (Crystal, 1997, p. 301)

Unlike other domains of linguistics such as syntax, morphology, phonetics, and phonology, the study of pragmatics goes beyond the sentence or utterance level and takes into consideration not only the surrounding linguistic context but also the surrounding social context. Therefore, pragmatics is, in fact, the study of language in use. This contrasts with what might be considered a somewhat static study of language, i.e. the traditional approaches to syntax which do not look beyond the sentential level nor include any consideration for contextual factors which is the approach and what is more often than not taught in most grammar books. The inclusion of real-life elements such as context, culture, and society makes the study of pragmatics the study of authentic language. Although, by stepping up to the challenge of attempting to account for both linguistic and extra-linguistic factors there are of course consequences, which in this case are the complexity and difficulty of pinning down and trying to control for these extra-linguistic factors.

It has been recognized that the ability to express one's self pragmatically involves, firstly, the awareness of, evaluation of, and interaction with the social, cultural, and communicative context in which one finds themselves (Bachman & Palmer, 1996). In addition to the awareness of the social context, one must also have the capacity to both comprehend, and use with some degree of accuracy a variety of linguistic or grammatical forms that are considered appropriate for the given social context. Thus, two main domains of knowledge emerge, one that is more socially oriented, and one that is more linguistically oriented. In the literature, these two domains are referred to as *pragmalinguistic* knowledge, and *sociopragmatic* knowledge (Marmaridou, 2011). Pragmalinguistic knowledge involves possessing the linguistic strategies (i.e. the grammatical knowledge) as well as an appropriate variety of strategies to enable one to carry out the desired interaction in the manner deemed appropriate by the speaker in the communicative context. According to Leech (1983), pragmalinguistic abilities are "the particular resources which a given language provides for conveying particular illocutions" (p. 11). To describe the concept of pragmalinguistics further, it can be thought of as the ability to express both direct and indirect communication acts, perform routines, and possess the ability to soften or intensify communication acts (Kasper & Rose, 2001). Whereas sociopragmatic knowledge is thought to be the ability to assess the situational context and appropriately respond according to social norms or cues the situational context demands. As Harlow (1990) put it, sociopragmatic ability is "the ability to vary speech act strategies according to the situational or social variables in the act of communication" (p. 328). Sociopragmatic knowledge also includes the capacity to convey interpersonal meanings (Bardovi-Harlig, 2009). Furthermore, the ability to process and appropriately integrate these two types of knowledge to guide one's linguistic output is what is thought to comprise communicative competence (Hymes, 1972), a term to which we will return in the following section.

When one acquires an L2 for the goal of communicating and interacting with native or other speakers of that language, there is a need to express oneself in pragmatically appropriate ways. Unlike a lack of knowledge or ability in one of the other language levels (e.g. syntax, phonetics) the inadequate expression of pragmatic features might not lead to an immediate breakdown in communication, however, that does not mean a lack of pragmatic knowledge has no repercussions in the social sphere. On the contrary, the consequences could be more profound than those triggered by other language errors (Thomas, 1983). It has been shown that the integration of pragmatic strategies into one's communication style is important, as others use what is said and

how the message was said or delivered to them in order to form judgments and come to conclusions about the speaker. This point was argued by Brown and Levinson (1978) in the development of politeness theory. While these consequences might not be evident at first glance, however, they are definitely there below the surface, for example, if someone is offended due to one of these incidents, they are unlikely to say anything to the speaker but instead simply avoid future interactions with the pragmatically incompetent person. To provide further evidence of how lacking pragmatic strategies can negatively impact the interlocutor's impression of the speaker, Flowerdew and Tauroza (1995) found that when L2 speakers failed to use pragmatic markers, listeners rated their speech incomprehensible, and incoherent. The listener then forms opinions and judgments of the speaker based on this impression. This highlights the importance of executing pragmatic competence in real life situations, for example, job interviews, social interactions such as making friends, and relationships between colleagues will all be affected by the pragmatic strategies a speaker employs. This is also true of understanding another's pragmatic moves, to illustrate Koike (1996) pointed out that "people's opinions of a speaker change when they understand the linguistic intent of the speaker's message" (p. 271). This clearly demonstrates the need to accurately learn pragmatics in an L2. As will be explained in section 2.2. this dissertation seeks to investigate the link between sociopragmatic and pragmalinguistic learning as reflected through the use of interpersonal and textual markers.

2.1.1. Pragmatic competence

In order to begin to speak about pragmatic competence, it is important to first conceptualize another notion: interactional or communicative competence. This concept is central to L2 pragmatics because it involves how a speaker attends to their own output as well as how they understand and react to, or manage their interlocutor's behaviour (Gumperz, 1982). Communicative competence was first mentioned by Hymes (1972) he put forth the idea that in order to know a language it was necessary to possess both; knowledge of the grammar and its rules, and also the sociocultural rules. Hymes (1972) suggested that linguistic competence went beyond the traditional domains of syntax, phonology, and morphology, and also included an important non-linguistic factor, something he referred to as communicative ability or competence. This term for him encompassed the social factors which govern the use of language. This concept was later developed and brought into SLA teaching and research field by Canale and Swain (1980)

and Canale (1983). They referred to the development of students' communicative competence, which included four sub-competencies: grammatical competence, sociolinguistic competence, discourse competence, and strategic competence. Grammatical competence refers to knowing the linguistic rules of a language. Sociolinguistic competence encompasses knowing the sociocultural rules of the target language. Discourse competence refers to being able to produce coherent and cohesive texts (both oral and written), and strategic competence entails possessing the necessary skills to deal with or avoid communication breakdowns. Then ten years later, communicative competence was further developed by Bachman (1990), he somewhat simplified the concept and stated that learners needed to internalize two types of knowledge, organizational knowledge, which refers to the formal structure of the language (i.e. grammatical or textual knowledge) and pragmatic knowledge, which includes the ability to assess the social context, and how to attach meanings to utterances in order to interpret the speaker's intentions. It is not difficult to see parallels here between the L2 pragmatic focus of sociolinguistic and pragmalinguistic knowledge and Bachman's (1990) pragmatic and organizational knowledge. Thus, it seems that communicative competence includes being both linguistically and socially fluent. To extend this one step further, if pragmatics is the integration of pragmalinguistic and sociopragmatic knowledge, and communicative competence is the integration of the grammatical rules and the social rules of a language, it seems they are referring to the same phenomena. Meaning that knowing a language necessarily includes being pragmatically competent.

Despite having been investigated extensively in L2 pragmatics pragmatic competence seems to be poorly defined, Kasper and Roever (2005) mention that pragmatic competence:

> comprises the knowledge and ability for use of conventions of means (such as the strategies for realizing speech acts) and conventions of form (such as the linguistic forms of implementing speech act strategies) (p.318).

Thus, their definition describes an acquisition and ability to use sociopragmatic and pragmalinguistic knowledge, which does not differ from Bachman's definition of communicative competence. In a review by Infantidou and Tzanne (2012), these authors attempt to clarify the term further. They begin by stating that gaining pragmatic competence is a two-stage process involving two elements. Firstly, it involves pragmatic awareness, which is considered to be the ability to "identify pragmatically inferred effects in the form of implicated conclusions conveyed" (p. 50) in

other words as the ability to read between the lines. Secondly, it involves as well as an awareness of the representational "link between linguistic indexes and pragmatic effects retrieved and explicate the link for the purposes of the L2" (p. 50), which is what they refer to as metapragmatic awareness. Their definition places pragmatic competence as a receptive skill, being able to interpret or understand the pragmatic cues a speaker leaves their interlocutor, and places pragmatic awareness as an active skill in which one can make the link between the form and the interpretation and put it to use in the L2.

Pragmatic competence is important to this doctoral thesis because it has been proposed that it is in fact through the use of PMs that one leaves pragmatic messages or cues to the interlocutor regarding how to interpret the message. Thus, the connection between the pragmatic competence and PMs becomes evident. In fact, there has been some research into the connection between pragmatic competence and PMs, for example, it has been argued that in order for second language users to achieve pragmatic competence, they must master a series of discourse strategies, for example: initiate and change topics, 'carry weight' in a conversation, uptake and respond appropriately, align one's turn by anticipating the end of others turns, and to appropriately fill or un-fill pauses, and that these strategies are well served by PMs (House, 1996, 2003). Furthermore, pragmatic competence has been recognised as the ability to appropriately hedge, and down-tone utterances, to carry out appropriate speech acts according to the context, to save face, express politeness, or be intentionally vague, to mark and check shared knowledge and to reformulate or to monitor the state of shared knowledge (Lin, 2016). These researchers argue that PMs are the units of speech that enable speakers to carry out these strategies. House's perspective on the use of PMs has been adopted in the current dissertation as the most adequately conveying their function, as a way to measure pragmatic competence.

Although the theoretical link between PMs and pragmatic competence has been put forward very clearly in previous research, few researchers have investigated it. In an exploratory study into second language fluency, Riggenbach (1999) analyzed six participants' oral data and reported that those who were rated as highly fluent filled most of their pauses with a PM rather than leaving their pauses empty. A study by Barón and Celaya (2010) measured incidental pragmatic learning through oral data, collected from 144 learners, ranging from primary to university level. They reported that those learners who filled their pauses with PMs were perceived

to have more fluent speech. Then, Trenchs-Parera (2009) measured discourse moves such as; the opening and closing of speech acts, topic introduction, change, turn taking, use of routines, patterns and formulaic language, and found that after a study abroad period learners incorporated more PMs into their speech to effectively achieve the discourse moves and were considered to be more native-like. Similarly, Shively (2015) studied the use of PMs and perceived fluency, it was reported that those learners who were rated as more fluent used an overall wider variety and frequency of PMs. These enlightening studies demonstrate that there is a correlation between the use of PMs and perceived communicative competency. This dissertation would also like to make a contribution in this direction and shed light on the issue.

2.1.2. Pragmatic theories in SLA

In L2 pragmatics, there are three main theoretical schools of thought to account for pragmatic acquisition: cognitive approaches, socially-oriented approaches, and emergentist approaches (see Timpe-Laughlin, 2016 for complete review). Cognitive theories include Schmidt's (1990) noticing hypothesis, and Bialystok's (1993) two dimensional model of L2 proficiency. Cognitive theories have been useful in the interpretation of L2 pragmatics because they emphasize the importance of input and then focus on how the available input is then processed by the mind of the learner. Schmidt (1995) explains how a feature in the input can transfer into knowledge in the mind of the learner via the *noticing hypothesis*, which states that the learner must become aware or notice a certain feature for it to then be taken up and made available for mental processing. In Schmidt's (2001) view, a learner must attend to not only linguistic forms but also the social and cultural contexts they are associated with. The noticing hypothesis is not so different from Bialystok (1993), who focused more on children's acquisition of language and sought to explain the psychological process involved in acquisition. She mentions the "processing ability of language learners in terms of the cognitive mechanisms responsible for learning and using language" (p. 47). She proposes two dimensions in her model: the learner's competence, and the task demands, and mentions that "different uses of language involve different processing abilities of language learners" (Bialystok, 1993, p. 47). To recapitulate, Bialystok's model suggests that a learner has to be ready to become aware of a feature, the processor has to be activated, and then whether the feature is processed or not will also be determined by other factors such as the task demands and the processing ability of the learner. This view applied to L2 pragmatic acquisition means that

knowledge needs to be acquired before it can be put to use, which requires that a learner become aware of and have explicit knowledge about a pragmatic phenomenon before they can then begin to process it, and eventually be able to incorporate it into their interlanguage properly. Thus, not unlike the noticing hypothesis the two-dimensional model begins by the learner analyzing the representation, once it has already been up taken, then the second dimension is when the learner begins to control the processing of the feature or item being acquired. Cognitive theories are most useful when it comes to interpreting the outcomes of language learning, it seems they can be measured best by analyzing what the learners are cognitively capable of producing on their own, under the assumption that the feature in question has undergone this process of noticing, uptake, processing and control for output (see Rose, 2005).

Turning now to socially-oriented theories, Vygotskyan psychology (1981) is where most of these theories have their roots. Vygotsky (1981) studied first language (L1) acquisition and theorized that interaction is at the centre of the acquisition process. This was then replicated by Ohta (2005) on L2 learners and the same conclusions were drawn, namely that interaction and socialization are essential elements in the process of language acquisition. Thus, from a socially-oriented perspective, it is argued that knowledge is created between expert and novice, via interaction, the expert is needed to mediate the interaction which helps to enable the learner to perform a task they would otherwise not be able to complete on their own. In this way, the expert provides some kind of scaffolding for the learner. One of the socially oriented theories is the acculturation model proposed by Schumann (1986). In this model, it is considered that both social and affective variables are at play in SLA. Social variables include factors pertaining to the L2 group such as power relations, integration patterns, enclosure, cohesiveness, and size, the cultural similarities between the L1 and L2 groups, the attitudes of the groups, and the intended duration of stay in the L2 environment (see Kasper & Rose, 2002). Whereas affective variables are factors such as language, and culture shock, motivations and individual differences. Schumann (1986) stated that the distance or proximity of one to the L2 culture and language was a predictor of language outcomes "The learner will acquire the second language to the degree he acculturates" (p. 379). Another theory in this school of thought was proposed by (Lantolf & Thorne, 2007; Thorne & Lantolf, 2006) and is known as socio-cultural theory. This theory views L2 learning as an interpersonal process dependent on meaningful social interaction and integration into the L2 community or culture, for example, Lantolf and Thorne (2007) state that:

Developmental processes take place through participation in cultural linguistic and historically formed settings such as family life, and peer group interaction and institutional contexts. (p. 197).

Learning occurs during interaction via mediation, by others and the self. This theory is somewhat similar to Ochs (1996) socialization theory which also holds that interaction is crucial to language learning and suggests that pragmatics is learned through socialization, and is considered to be mainly an implicit type of knowledge. Similar to Vygotsky and Lantolf, Ochs considers language acquisition as something that develops through socialization and interaction between language users. Socialization theory places a special importance on the integration of language and culture (Schieffelin & Ochs, 1986). Research on socially-oriented theories tend to have a qualitative nature and most research in this area focuses on the process of development over time, and includes longitudinal studies that analyze natural occurring data, and microanalysis focuses on the interaction between language users. These approaches are often interested in identifying what kind of learning can be expected to occur in what setting (for example, study abroad vs at home). These theories can be most useful to linguistics when trying to determine why certain learners acquire features and others not, or why some learners integrate more than others into the L2 social culture. In addition, socially-oriented and cognitive theories can be applied together, the social approach can account for how a feature becomes available in the input, and the cognitive approach can account for the mental processing and linguistic output measured.

Besides these cognitive and social theories, there are emergentist approaches to L2 pragmatics. Theories in this field are ones such as the Dynamics Systems Theory (De Bot, 2008; Ellis, 2008) or the Emergentist approach, (Ellis & Larsen-Freeman, 2006). These theories mainly state "that language develops through interactions between context and individuals, and variability is central in development" (Taguchi, 2012, p.66). They view L2 development and L2 pragmatic development as an interactive dynamic and co-adaptive process that is shaped by a variety of variables, including learners' individual differences such as motivation attention aptitude and learning style, cognition working memory, and personality (Dörnyei, 2009; Ellis & Larsen-Freeman, 2006). Dynamic systems theory regards contextual variables and IDs as central components in L2 learning. It considers change to be the natural state of learning, and that learning occurs in unpredictable ways. It is suggested that the system interacts with the environment as well

as the internal factors and is constantly reorganizing. In this theory the fuel is essentially the input (De Bot, 2008) it is via input that the learner is able to interact with the environment, this input also activates internal cues or reactions which fuel the reorganization and updating of the system. Taguchi, a supporter of this theory, notes that by studying both the input and a combination of ID factors researchers will be able to draw stronger conclusions (Taguchi, 2012). For example, in this model more variables can be considered, and we move away from analyzing language as if it were in a vacuum. Dynamic systems theory suggests that it would be likely that highly motivated learners in the same environment as unmotivated learners will have different outcomes and furthermore, that one's motivations may change from one year to the next and that this as well will have an impact on language outcomes. These approaches are most useful for applied linguists when attempting to account for a wide variety of variables, and the use of language in real-life contexts.

This dissertation examines L2 pragmatic development from a mainly cognitive perspective by measuring participants' ability to produce PMs based on noticing and uptake via participation in the EMI learning context (whether full immersion or partial immersion). It is thought that participation in an EMI program provides a massive increase in the amount of exposure to English, thus leading to more opportunities for noticing, uptake, and practice through authentic communication. At the same time, this thesis takes a socially-oriented approach considering that the professor is the expert in the field and is fluent in the academic discourse of their field. The interaction and amount of contact between expert and learner might then contribute to the learners' socialization and thus lead to language gains. Finally, a dynamic systems approach is taken with respect to the study of IDs. The approach taken recognizes the variability of IDs within participants as well as the constant state of change of the learning context. For these reasons, dynamic systems theory is taken into account upon the interpretation of the results.

2.1.3. Research on pragmatic learning in SLA

There has been much investigation within L2 pragmatics which aims to describe, characterize and measure a learner's knowledge, use, and acquisition of pragmatics in a foreign language. This section provides a short review of the main findings from the field, in order to familiarize the reader with some of the factors involved in L2 pragmatics and what directions research has taken

to date. To begin with, one of the first studies on L2 pragmatics was by Scarcella (1979) who studied beginner and advanced learners of English. She measured their developmental pragmatic and discourse competence regarding inviting and requesting and found that beginner learners tended to make more pragmatically erroneous statements than grammatically erroneous ones. She noted that even highly salient routines were slow to be acquired (e.g. thank you, you're welcome). She concluded that learners tend to overgeneralize the pragmatic routines and that they often broke sociolinguistic norms. Her study showed that learners seem to be able to master grammar more easily than pragmatics and that perhaps learners are somehow insensitive or unaware of pragmatics when learning a foreign language. Another early study on L2 pragmatics is by Blum-Kulka and Olshtain (1984) who studied learners of Hebrew and measured their performance according to the appropriate use of requests and apology strategies and found different strategies were used by NS and non-native speakers (NNSs). They suggest that there are constraints on the strategy one chooses to employ depending on the context, the physical setting, social parameters of distance, power, age and culture. Following these studies, the research trend moved swiftly to speech act theory and politeness theory. The majority of studies within L2 pragmatics focus on the learner's use of language in different social contexts with a heavy focus on speech acts, for example, Blum-Kulka and Olshtain (1986) requests, Takahashi and Beebe (1987) refusals, Trosborg (1987) apologies, Omar (1992) greetings, Trosborg (1995) complaints, and many more. In recent years the focus on speech acts has lessened and researchers are becoming more interested in other features of L2 pragmatics such as formulaic language, (Alcón-Soler & Sánchez-Hernández, 2017) and communication strategies (Björkman, 2011).

Turning now to some of the first studies conducted on a pragmatic phenomenon other than the speech act we must include Kerekes (1992) who studied pragmatic awareness. She found that as proficiency increased so too did learners' perceptions of qualifiers (e.g. *sort of, kind of, I think*). It furthermore seemed that it was the advanced females who were able to interpret qualifiers at a native level, thus suggesting gender may also be a factor. Then, Hays (1992) studied the production of discourse markers (*so, but, well, you know*) recorded during classroom discourse among first, second, and third-year Japanese students of English and found that there was a pattern to their acquisition: in that markers such as *and, but* and *so* were mastered by most students while *well* was not. In a different study, Koike (1996) focused on responses to suggestions and found that the advanced students were more aware and attended to formulaic language and routines more than

lower proficiency levels. These studies were the first of their kind investigating PMs, they provide some of the first clues to the importance of PMs in the comprehension and production of L2 pragmatics, and although they contributed to broadening the linguistic phenomena studied within the field of L2 pragmatics the focus has still been overwhelmingly focused on speech acts. As speech acts are not the focus of the present investigation no further attention will be paid to them directly. Rather, factors which are relevant to the thesis and that have been found play significant roles in L2 pragmatics and PMs are introduced. For example, one of the first factors investigated in L2 pragmatics was proficiency level, investigations of this type attempted to answer the question of whether pragmatics or grammar preceded or followed one another (this will be addressed in more detail in section 2.1.3.1). Additionally, due to the close link between identity, culture, sociological factors and pragmatics IDs is another factor that has received a fair amount of attention in the literature (also addressed in section 2.1.3.1). Finally, the context or learning environment has also been investigated, with a majority of studies considering the stay abroad experience (Alcón-Soler, 2015; Shively, 2015), although the formal instruction and content and language integrated learning (CLIL) context (Dalton-Puffer & Nikula, 2006) has also received attention. General findings show that the formal instruction context simply does not provide enough pragmatic input for learners (Context will be taken up again in more detail in section 2.1.3.2). Two additional factors known to play important roles in L2 pragmatics are the absence or presence of instruction, explicit or implicit. Most findings from studies on this issue show positive results for explicit teaching of pragmatics and high learning outcomes Alcón Soler and Guzmán Pitarch (2010). Language transfer is also an influential factor in L2 pragmatics (Takahashi, 2015). Language transfer refers to the act of transferring one's L1 norms and linguistic constructions into and L2. As Walsh and Lado (1957) stated: "individuals tend to transfer the forms and meanings, and the distribution of forms and meanings of their native language and culture to the foreign language and culture" (p. 2). This process is thought to occur in both production (speaking) and reception (comprehension) of language. However, as the doctoral thesis had to focus on just a few factors, I was not able to include the variables of instruction nor transfer in this analysis, instead, the factors of IDs and the context of learning were chosen as the main focus of this dissertation and are discussed further in the following two sections.

2.1.3.1.   Individual differences

Some of the main IDs identified in SLA are proficiency, attitudes, identity, motivations and the willingness to conform to L2 pragmatic norms. A large body of research has been generated regarding the relationship between pragmatics and general proficiency level. For example, Bardovi-Harlig and Dörnyei (1998) studied the ability of English as a Second Language (ESL) and English as a foreign language (EFL) learners to recognize and rate pragmatic errors in a series of different speech acts. They reported that ESL learners (those living in the target language environment) correctly identified and considered pragmatic errors more severe than grammatical ones. Where the EFL (those learners not living in the target language environment) did just the opposite and recognized and rated grammatical errors as being more severe than pragmatic ones. Results from this study were confirmed in a replication study by Schauer (2006) showing that the EFL students were less aware of pragmatic infelicities than ESL students. The findings from these two studies just mentioned confirmed that both proficiency and input (and therefore context of learning), affect pragmatic learning. In a study investigating the relationship between proficiency level and PMs use, of particular relevance to this dissertation, Neary-Sundquist (2014) reported that PM use rose with proficiency level, that lower proficiency learners used PMs much less frequently than NSs did, and that advanced learners reach NS levels for the frequency of use. With respect to the variety of markers used, she found that low-level learners overuse certain expressions while advanced learners make use of a larger variety of PMs.

In contrast to the large body of research on proficiency and L2 pragmatics, there has been somewhat less attention paid to the effectiveness or willingness of learners to adopt L2 pragmatic norms. Learners' failure to acquire L2 norms was often thought to be due to a lack of awareness (Kasper, 1992). However, more recently it has been shown that even though NNSs can recognize and interpret L2 pragmatic norms they often either implicitly or explicitly refuse to integrate them into their interaction patterns (Hinkel, 1997; Kasper & Schmidt, 1996). This was confirmed by LoCastro (2001) who studied Japanese EFL students and found that there was a resistance to converge to English pragmatic norms, that the learners did not desire to reach native-like norms, and that many of them felt it would be inappropriate for them to adopt L2 pragmatic norms. This study highlights how attitudes, motivations, and other IDs impact the willingness to integrate with the L2 community as well as the willingness to adopt L2 pragmatic norms. It has additionally been

found that those learners who are more integrated and who socialize more in the L2 are more likely to improve or adopt L2 pragmatic norms (Kinginger, 2008; Taguchi, 2011). In a different study by Kim (2014) who studied Koreans on a study abroad in the United States found that despite the learners being highly motivated their willingness to adopt pragmatic norms was more connected with the social identity they wished to project at the specific communication act. She found evidence to suggest that learners have a constant inner struggle between two conflicting sets of pragmatic norms and they decide which one to use based on what will serve them at the moment to create the social identity they wish. Besides these studies, research is scarce concerning pragmatic learning and motivation or other ID variables such as anxiety, enjoyment, and attitudes. There is, however, one exception, Takahashi (2015) studied the effects of learner's profiles on pragmalinguistic awareness and learning. She reported that learner profiles did constrain pragmatic awareness of request forms, but did not affect their learning of them. She concluded that pragmalinguistic learning requires deep processing, something that may require high proficiency, especially in grammatical and listening skills. To summarize this section, previous research has shown that identity and IDs play crucial roles in the ultimate attainment of L2 pragmatics, however, the picture is still unclear and more research needs to be carried out regarding different IDs such as enjoyment, anxiety and motivation, in different learning contexts as well as different pragmatic features, which is a contribution this doctoral thesis would like to make.

2.1.3.2.   Context

The context of learning is recognized across SLA as an important factor in learning and regarding pragmatics even more so. The most popular context in the L2 pragmatic literature is the study abroad context, research suggests that it is, in fact, a positive learning environment for the development of pragmatic competence (Schauer, 2006; Shively, 2015). Cultural and linguistic immersion of this kind provides learners with increased opportunities to interact with NSs of the target language. Other benefits include being repeatedly exposed to daily routines and being provided with ample opportunities to practice a wide variety of communicative acts in many different social settings, fulfilling a myriad of speech acts while holding different roles, and power relations. In order to stay focused on the topic of the dissertation, research concerning PMs is

mentioned here. For example, Liu (2013, 2016) found that for Chinese students living in the United States both the increased exposure and increased socialization had significant positive effects on the frequency and variety of PMs produced. Similarly, Barron (2003) measured the use of pragmatic routines of 30 English-speaking learners of German through a written discourse completion task. She found that the exposure to the input of the target language triggered important pragmatic development and more target-like use of pragmatic routines. In a similar study on 128 international students who spent a study-abroad period in the United States, (Sánchez-Hernández, 2018) found parallel results, showing that there was a relationship between the degree of acculturation and acquisition of PMs. These studies demonstrate how increased exposure, socialization and acculturation through a study-abroad period have measurable effects on pragmatic development.

While a classroom instructional setting does not offer the same variety of opportunities for learning or for practicing pragmatic skills as studying abroad can, it does show benefits of its own. Both instructed as well as incidental learning of pragmatics have been documented in previous studies (Bardovi-Harlig, Mossman, & Vellenga, 2015; Nguyen, Pham, & Pham, 2012). However, few studies report on the effects of explicit instruction on the acquisition of PMs; rather, most studies take language samples from classroom learners and report on their usage of PMs as learned incidentally. In the case of Bu (2013), oral data were gathered from interviews and recordings of English classroom discussions. She found that the Chinese learners in her study varied greatly regarding the types of PMs used when compared to NSs. She concluded that, while learners use many of the same PMs as English NSs, they do not employ them with the same functions as NSs do, and at times learners even give new and different functions to PMs that NSs never do (also found in Müller, 2005). In a different study on Chinese learners who lived in the United States by Liu (2013), similar findings were reported: regarding the frequency of use of PMs in interviews, some markers were used significantly differently when compared to NSs. Those markers that learners used more frequently than the NSs were *just*, *sort of/kind of, but*, *well* and *then*, compared to *I think*, *yeah/yes* and *ah* which were used less frequently by the learners than by the NSs. The author argues that the difference between learners' and natives' use of PMs can be attributed to language transfer.

Regarding integrated content and language settings, (ICL) Nikula (2008) studied adolescents' communication in content courses taught through the English language. She found this context to offer a wide variety of opportunities for pragmatic learning and practice. From classroom observation, she reported that the students used PMs for a variety of pragmatic functions, such as mitigating or softening their communication acts. This study provides evidence that content learning does allow learners to practice pragmatic routines, as well as provide some input regarding PMs. These studies also show that although learners do not receive direct instruction on PM use, they can and do learn to use them incidentally. This dissertation seeks to build on this knowledge by investigating university undergraduates and the EMI context, which is an under-investigated context when it comes to PM learning, in section 2.3.2. research carried out thus far regarding EMI and PM learning will be reviewed.

2.2. Pragmatic markers

This section begins with an introduction to PMs, by mentioning their study and characterization, then in section 2.2.1. the approach taken by this dissertation is outlined, followed by a distinction of the functional roles of interpersonal PMs (section 2.2.2.) and textual PMs (section 2.2.3). Finally, the research that has investigated the acquisition of PMs is reviewed in section 2.2.4.

PMs are identified as key elements in linguistic interaction (Aijmer, 2014). Despite their recognized role in communication, defining and categorizing them is a complex issue, as the literature in the field has shown (see Fischer, 2014 for review). First of all, many different terms have been proposed for these lexical items, terms such as: discourse markers (Fraser, 1996; Schourup, 1999; Shiffrin, 1987), discourse particles (Östman, 1995), discourse connectives (Blakemore, 1992), conversational markers, modal particles (Fischer, 2006), among others, have been used to refer to this group of linguistic items which have specific cohesive functions and important pragmatic / interpretive roles in conversation. For example, "not one single definition of the term discourse marker remained undisputed or unaltered by other researchers for their purposes" (Lenk, 1998, p.37). Within the framework of this dissertation study the term *Pragmatic Marker* has been chosen, following such researchers as Andersen (2001), Brinton (1996), Fraser (1996), Redeker (1990) who identify PMs as the umbrella term for these discourse connecting

items. This term was chosen in part because of the term *pragmatic*, which points out that there is a link between these words and a pragmatic expression, additionally, it is an allusion to the fact that there are pragmatic functions behind these markers, and thirdly, as Andersen mentions, this term identifies the low degree of lexical specificity of the item and the high degree of contextual sensitivity.

Regarding the classification or description of PMs, it seems to be as problematic as the nomenclature, with much disagreement among the experts. The difficulty of classification might be because it seems that most PMs tend to have different functions depending on the discourse context and environmental situation in which they are produced. As well as being grammaticalized forms of other lexical items, which causes some PMs to overlap syntactically or semantically with subordinating conjunctions or coordinators, while some other PMs may simply connect different parts of discourse. All these issues have contributed to categorizations that fail to completely and accurately describe what pragmatic markers really show in terms of structure and function (Fischer, 2014). Although, despite having no clear definition in the literature, many researchers have identified some common characteristics among PMs. For example, most of them seem to show flexibility, that is, they are flexible in terms of their placement and use in discourse; they also encode speakers' intentions and interpersonal meanings (Fung & Carter, 2007); they carry little semantic meaning (Shiffrin, 1987) but, at the same time, are essential to the natural flow of speech, as well as to correct interpretation (Neary-Sundquist, 2013). Another aspect which has been reported in various studies is that hearers seem to rely on PMs to interpret and follow discourse (Aijmer, 1996; Blakemore, 1992) so, as Leech and Svartvik suggest by using PMs:

> in speech or in writing, you help people understand your message by signalling how one idea leads on from another. The words and phrases which have this connecting function are like 'signposts' on a journey. (1975, p. 156)

Thus, these common characteristics are important elements for identifying discourse markers, which may have elusive referential meanings on the surface, but play important roles on different planes of communication (Shiffrin, 1987).

In addition, in this dissertation we consider PMs to be multifunctional items, which is another unclear property and subject still under debate in academic circles. For example, Aijmer (2002), Lenk (1998), and Shiffrin (1987) have all argued for a multifunctional approach,

accounting for a variety of meanings and functions as well as the occurrence of PMs in different discourse contexts. However, others believe PMs have a core meaning that is compatible with all its possible contextual uses (Fraser, 2006; Schourup, 1985). The multifunctional feature of PMs is something that Fischer recently took up (2014) she describes PMs as operating on a 'type of spectrum' - as she calls it- and states that discourse markers differ on how integrated they are, she argues for a wider functional approach to the study of discourse markers and that, by taking this approach, clusters of markers will become clear something which could aid to a more concrete classification of discourse markers. Therefore, a multifunctional approach to the study of PMs has been taken in this thesis. Concerning the cues used in order to classify the PMs that appeared in the data, contextual clues have been adopted. They enable speakers and hearers to interpret PMs and include elements such as, the type of interaction, prosody, the speaker themselves (relating to social factors, e.g. gender and class), and the collocation or position in which the marker appears (Aijmer, 2002; Andersen, 2001). By adopting this perspective we take a somewhat cognitive approach whereby it is considered that the hearer is responsible for the inferential process of the pragmatic meaning of the utterance (Andersen, 2001).

The importance of the use of PMs in communication must be stressed, in fact, it has been shown that the absence of markers can have many negative effects, including, but not limited, to making an utterance seem unnatural, awkward, disjointed, impolite, unfriendly or dogmatic (Brinton, 1996). In short, the chances of being misunderstood are high (Gumperz, 1982) and what is more is that these misunderstandings directly impact the impression or judgment an interlocutor makes about the speaker. Thus, the use of PMs can affect a speaker's identity, self-confidence and willingness to communicate (Liu & Jackson, 2008). It is for these reasons PMs have been chosen as the object of analysis in this dissertation as they are essential for L2 speakers to use correctly in order to express themselves in the way they wish to be interpreted. Another factor we must not avoid mentioning is the great deal of individual variation that exists when it comes to PM use. Speakers use PMs to express themselves (Lyons, 1994) and this is dependent on socio-economic status, age, gender, attitudes, education and more (Beeching, 2016). The close connection between PMs and these variables, although not investigated in this study, is something we must keep in mind when interpreting the data as well as in future investigations on this feature.

2.2.1. A functional approach to the study of PMs

Turning to the theoretical approach towards the analysis and understanding of PMs in this doctoral dissertation, it is useful to begin with Shiffrin's (1987) contribution, as we might say she began what we now consider to be a functional approach to PMs. She took a bottom-up approach to the study of discourse markers as she called them and coming from a conversation analysis approach she placed particular importance on the context of the markers within the discourse. She found that the discourse markers could operate on different planes at the same time or operate differently in contexts. She identified five in total, *ideational structure* which marks cohesive relations, topic relations, functional relations, *action structure* which marks sequences, *exchange structure* which marks question and answer sequences and greetings, *information state structure* which marks the cognitive state of the interlocutors, and *participation framework* which marks the shared responsibility of the speakers in the interaction e.g. negotiation. This was then later simplified by Redeker (1990) who within the framework of relevance theory proposed a paradigm of coherence, that included three main structures *ideational structure* which marks temporal sequencing, elaboration, cause, reason, and consequence, *rhetorical structure* which marks concession, evidence, justification, and conclusions, and *sequential structure* which marks topic transition and correction or paraphrasing. This paradigm dealing with different structures has been taken up by other researchers such as Aijmer (2002), Andersen (2001), and Müller (2005) and has been delimited to two main overarching functions, textual and interpersonal. Under this type of analysis, known as a functional pragmatic approach PMs are thought to carry out either mainly textual or mainly interpersonal functions in discourse (Aijmer, 2002; Andersen, 2001; Mosegaard Hansen, 1998). As Traugott put it:

> There is a tendency to distinguish between those markers which signal relationships between clauses, and those markers which serve primarily interpersonal functions such as hedging or turn-taking uses. (1999, p. 180)

These textual or interpersonal functions are what contributes to either discourse coherence and organization (Halliday & Hasan, 1976), or to maintain and manage interpersonal exchange (Brinton, 1996). A brief description of textual and interpersonal markers is provided below. I have

chosen to be brief to avoid repetition as all three publications included in this doctoral dissertation describe the functions of textual and interpersonal PMs in detail.

2.2.2. Interpersonal markers

Interpersonal markers express attitudes, feelings, and evaluations, they reveal the opinion and thoughts of the speaker. These types of markers serve functions such as to hedge, express uncertainty, and act as an appeal to the hearer for confirmation. As well as to express response or reaction to the preceding utterance, or serve to backchannel, these markers can also be used to maintain face and show politeness (Aijmer, 2002).

One of the main contributions of this doctoral thesis is an attempt to identify a clear list of functions of interpersonal PMs. Thus, after an extensive review of the literature, and work on a pilot study (Ament & Barón, 2018) a proto model for the functions of interpersonal markers was compiled for use in the analysis of the data in the three studies included in this dissertation. To our knowledge, no similar categorization exists in the literature. What follows is thus a comprehensive break down of the functions of interpersonal PMs identified in the literature which are presented in the list below. The rationale for the selection of these functions along with examples of each type of marker is explained in detail in Chapter 3 section 3.2.

- *To mark receipt of information, to show listenership and support to the speaker*
- *To stimulate or maintain interaction, to assess listener comprehension and engagement*
- *To align or disalign oneself with the speaker by expressing agreement or disagreement*
- *To mark joint construction of knowledge, mark common ground*
- *To mark joint construction of knowledge, mark common ground*
- *To signal hesitation, thinking or repair*
- *To mark attitudes, stance or emotional reactions*
- *To intensify, boost, downgrade, hedge or serve as politeness markers*

2.2.3 Textual markers

Textual markers function to create textual coherence. These markers are discourse context sensitive, to the preceding and the following text, as well as to the context of the situation. These types of markers mark discourse connections and can communicate how the speaker perceives the relationship between two propositions (Andersen, 2001). The textual functions of PMs are agreed upon by most scholars and textual markers seem to be the category that some scholars refer to as discourse markers, leaving interpersonal pragmatic markers as a different category (i.e. Fraser, 1999).

One of the main contributions of this doctoral thesis is an attempt to identify a clear list of functions of textual PMs. Thus, after an extensive review of the literature, and work on a pilot study (Ament & Barón, 2018) a proto model for the functions of textual markers was compiled for use in the analysis of the data in the three studies included in this dissertation. To our knowledge, no similar categorization exists in the literature. What follows is thus a comprehensive break down of the functions of interpersonal PMs identified in the literature which are presented in the list below. The rationale for the selection of these functions along with examples of each type of marker is explained in detail in Chapter 3 section 3.2, and Chapter 4 section 4.3.

- *To show causal relationships to show consequence or effect, to mark the link between two clauses*
- *To mark a contrast between two clauses or between two parts of the discourse*
- *To show a continuation of discourse on the same topic, to add additional information*
- *To elaborate, reformulate or exemplify*
- *To signal the opening or closing of discourse or mark the end or beginning of a turn*
- *To show the temporal sequence between clauses or between two parts of the discourse*
- *To signal shifts or transitions of discourse topics, to mark digression from one topic to another or return to a previous topic*
- *To indicate or preface results, summary, or conclusions*

In the understanding that for this dissertation we have adopted a functional approach to the analysis of PMs, the claim for flexibility is also necessary. In other words, it is important to follow our categorization when analyzing the data, however, it is also necessary to retain a bit of flexibility

and realize that these functional domains are not exclusive and that PMs can sometimes fulfill two functions at once (Andersen, 2001; Östman, 1981; Shiffrin, 1987). For example, *now* can operate as an interpersonal marker but this would be second to its more frequent textual function (example taken from Aijmer, 2002). This is what is meant by taking a multifunctional approach. Now that we have introduced what PMs are and how they are approached in this thesis, we turn to what is known regarding their acquisition in the following section.

2.2.4. The acquisition of pragmatic markers

As has been mentioned speakers and hearers alike rely on PMs to correctly interpret or express their message during communication (Aijmer, 2013). What is known regarding the acquisition of PMs is that NSs use PMs at higher frequencies than NNSs, and in addition, NSs tend to use a wider variety of them than learners do (Bu, 2013; Müller, 2005). However, on a more detailed examination, it remains unclear which PMs are acquired first and how learners acquire them, which is why this doctoral research takes an in-depth analysis of PMs by analyzing different functions of both textual and interpersonal markers, as used by EMI and non-EMI learners compared to NSs.

One of the stumbling blocks for L2 speakers seems to be the lack of form-function mapping of PM to meaning between languages (Perdue, Benazzo, & Giuliano, 2002). It seems that L2 speakers often, unconsciously, translate markers from their L1 or fail to realize the contexts in which a marker can and cannot occur in an L2 (Nikula, 1996). There is a growing amount of research on the acquisition of PMs and a number of interesting patterns have come to light, for example, Bu (2013) studied 10 Chinese speaking learners of English. Through sociolinguistic interviews, it was found that Chinese discourse markers did have an effect on their English output. They used some markers in positions that NSs never did due to having a corresponding marker in Chinese that is able to take different positions. They also used back-channelling markers in a way that was foreign to the NSs. This study shows evidence of language transfer. On a study investigating the effect of the context of learning Müller (2005) studied NSs and NNSs on their production of a range of markers such as *so, well, you know*, and *like*. She analyzed German speakers English (enrolled in English philology) during a stay abroad in the United States. Participants were asked to explain a silent film to their partner and a short discussion was carried

out. She found that although the German speakers used all four markers they used them differently than the NSs did. For example, some functions that appeared in the NS data never appeared in the German speaker data and vice versa. Her study highlights that even though interaction and contact with NSs of English and increased contact with the language via study abroad can encourage a more native-like usage of PMs learners still either resist or are unaware of correct production. A second important study on PMs learning was carried out by Fung and Carter, (2007). They studied secondary school children in Hong Kong and compared them to the British English corpus of the same age group. They analyzed PMs as *interpersonal, referential, sequential*, or *cognitive* in function and reported that there were significant differences in how the L2s used the markers compared to the NSs, many common markers in the British corpora never appeared in the learner data. This was especially marked for interpersonal markers showing a severe lack of use amongst the L2s whereas the learners seemed to use structural and referential markers fairly similarly. This study serves to highlight the difference between learners and NSs as well as show that perhaps the L2 classroom is not conducive to interpersonal PM learning. However, when this study was somewhat replicated by Lin (2016) she found that her Taiwanese adolescents produced more interpersonal markers than the British natives and that the NSs produced a frequent rate of referential markers. Both studies concluded that PMs should be addressed more directly in the L2 classroom in order to aid a more balanced acquisition of PMs. A study investigating the effect of proficiency on the use of PMs was carried out by Wei (2011) she studied 141 Chinese university students all of whom were studying English majors. The participants were split into intermediate and advanced English speakers and were recorded responding to a series of interactional stimuli. Her results showed that advanced students produced significantly more PMs as well as a significantly wider variety of PMs than the intermediate ones, but that the groups showed similar patterns of use, with the same top five markers (*I think, well, yes/yeah, you know*, and *please*) being common for both groups. Advanced students were furthermore found to produce more markers to show turn-taking than the intermediate group. The advanced learners also used more interpersonal markers than the intermediate group (*oh, well, actually*, and *you know*). This study shows that there may be somewhat of a progression or order of acquisition of PMs with advanced proficiency being a necessity in order to master the use of some interpersonal markers. To summarize these studies mentioned, it has been found that context, proficiency and first language all play a role in the acquisition of PMs. These findings provide the motivation and rationale to further investigate the

variable of context of learning in relation to PM acquisition, specifically the EMI context was chosen as it has not been investigated previously.

2.3. English-medium instruction in higher education

This section begins with an overview of the rise of English in academia and HE. It then describes different types and models of implementation of EMI in section 2.3.1. Then in section 2.3.2. A justification for why EMI can be considered a context for SLA is provided. This is followed by a review of the research that has been carried out in EMI contexts in section 2.2.3. And finally, in section 2.3.4. the studies that have investigated language outcomes as a result of EMI are discussed.

In order to gain an understanding of EMI in Europe, it is important to begin by looking at some of the educational as well as linguistic policies put into effect over recent years. It seems that in the European Union (EU) state members recognized the increased use and importance of English in the developing global world as useful tool to increase globalization and internationalization and decided to invest in and promote its future by setting out new agendas in regards to multilingualism and inter-culturalism in the educational sphere at all levels of education including HE. This led to the introduction of the European strategy towards multilingualism, specifically the 2005 White paper on Education and training, which included the 1+2 formula which required all European citizens to be proficient in their first language plus 2 additional European languages (Pérez-Vidal, 2014b). Then regarding HE, an example of one of the most important changes to policy has been the Bologna process (The European Minister of Education, 1999), whose aim was to develop a coherent and cohesive European HE arena that would have all EU member states HE systems streamlined so that qualifications in one country would be equivalent or compatible with those obtained in another. This would ease mobility and hiring for employers and professionals and make university exchanges easier for students. This process opened the doors of universities to attract not only national but international students, as well as to develop economic and cultural collaborations with other countries including the mobility of students and faculty, and for the citizens to develop intercultural skills (European Commission, 1995). Nine years later, the European Commission consolidates the future of English as well as emphasizes the EU's interest in not only English but multilingualism and stated its objective as:

"To raise awareness of the value and opportunities of the EU's linguistic diversity and encourage the removal of barriers to intercultural dialogue. A key instrument in this respect is the Barcelona objective - communication in mother tongue plus two languages. More effort is needed towards achieving this objective for all Citizens." (European Commission, 2005, p.5. bold in original)

The European Strategy toward Multilingualism included several recommendations made to the member states. Some related to language policies, and one to mobility. Mobility was promoted by the European institutions on the bases of several schemes. The one addressed to tertiary education was the European Action Scheme for the Mobility of University Students (ERASMUS), put in place in 1987 and rebaptised in its current edition as ERASMUS +. Additionally, the subsequent Erasmus Mundus program was set up, where students spend part of their university period at a participating university. Professors, professionals, and researchers also started searching for the best opportunities, for their careers, research, and salaries. All these changes spurred European universities to become more competitive, aiming to attract the best international and local students in order to increase revenue and to hire the most highly qualified professionals in the field to raise international recognition, and status (Pérez-Vidal, 2014b).

Leaving aside policy and looking at other factors influencing the growth of popularity of English, a dramatic increase in the use of English, worldwide, over the past century and with a marked change in the past half-century is particularly notable. The spread of English is due to a variety of social and political factors. The growth of English as a lingua franca (ELF) is often attributed to globalization. In 2003, it was estimated that English was spoken by 329 million people as their first language (Crystal, 2003) and that 750 million people speak English as a foreign language (Ives-Keeler, 2014). The exponential growth of English around the globe has led to its adoption as the current lingua franca (Jenkins, 2011). English has become the dominant language in business, travel and tourism, politics, economy, popular culture, research and HE. It is the popularity of English in research that had led to the majority of conferences to be held in this language regardless of whether or not the conference is held in an English-speaking country. This increased use of English has in turn then lead to the commencement of English being used as a medium of instruction by professors, most notably the natural sciences. The main motivation for universities to offer EMI programs is typically described as a desire to improve their international

professors of EMI are not interested in language at all. They are in fact professors, experts, in their fields and wish to impart their very specialized knowledge to the students, no language support courses are offered to EMI learners. The main differences between immersion and EMI are that the EMI professors are usually not NSs of English and, as with CLIL, the age of the students is different as in EMI, we are dealing with adult learners and immersion pertains to children. Then to give two examples and contrast ICLHE and EMI two different studies were carried out, one at an Italian university and another at a Swedish university. Italian lecturers were found to switch from using the language for purely communication (content) to look at it objectively (focusing on form). For example, terms were explained or language structure became the focus. The researcher concluded that language was seen as second to content and that lectures were *'mainly meaning focused but with incursions into language focus and thus moving gradually into ICLHE'* (Costa, 2012, p. 42). English lectures at this Italian university can be considered ICLHE rather than an example of EMI. Whereas, in the study on Swedish universities (Airey, 2012) found that there was no focus on language skills. It has even been found that in some cases professors do not feel comfortable correcting students' mistakes (Unterberger, 2012). This type of setting is considered EMI as referred to in this doctoral thesis.

2.3.1. Types and implementation of EMI

Turning to the implementation of EMI programs, they may be realized differently in different academic contexts (see Ramos-García & Pavón Vázquez, 2018 for an overview of policies in Europe as well as in Spain specifically). For example, there are either top-down or bottom-up, for instance, if the institution's aim is to internationalize, it is more likely to take a top-down policy and implement or impose EMI (e.g. Spain and Italy). This is the context of the university under study in this dissertation, the aim is mainly inward-oriented, with aims to internationalize local students (Gundermann, 2014). This contrasts with a bottom-up approach where the use of English comes out of a necessity to communicate and is implemented as a lingua franca, due to the high percentage of foreign students (e.g. Germany and Sweden). Then, regarding the amount or intensity of English classes, Nastansky (2004) identified three different models that have been adopted when implementing English taught program in university settings. Firstly, a program in which the amount of English use remains the same throughout the program. The second model increases the amount of English taught classes as the degree goes on, and the third, adopted in

Germany involves decreasing the amount of English taught classes as the degree goes on in an effort to encourage local language learning.

In addition to these types of EMI, from a language focus perspective, Knapp (2011) identified three types of EMI: type one, international EMI programs, these are mainly master and doctoral level courses which are designed to attract international students. International EMI courses do not state explicit language learning goals on the curriculum and are instead focused solely on teaching the content of the course, English is viewed as a means to communicate and deliver the course contents. Type two EMI courses are geared towards students of English linguistics and literature or future English teachers; these programs have clear language learning goals and include explicit formal language instruction courses. Type three EMI courses are aimed at local students in any subject, with a twofold goal, to provide specialization in the field of study, and to prepare students to use English in their professional lives. These courses are often undergraduate or master degree programs. This third type has *implicit* language learning goals, while they are not stated officially, nor actively supported in any way. The main aim of this section was to contextualize and characterize EMI, the historical factors affecting the growth of English have been pointed out, the policy changes that have secured its position in the EU have been mentioned and the main educational goals of EMI courses have been described, distinguishing it from other bilingual education models. In the following section, we look at the progression of research on EMI from its beginnings to now.

2.3.2. EMI as a context for language acquisition

While there is a large and growing body of research into attitudes and reactions to EMI implementation and professor support and certification as just reviewed in the preceding section, research investigating language outcomes seems to lag behind with only a few studies being carried out to date (Ament & Pérez-Vidal, 2015; Ritcher, 2017). Although looking to findings from SLA research, there is evidence that a combination of formal instruction and either stay abroad or an increased amount of exposure to the language can result in positive language learning outcomes (Muñoz, 2006). There is also a large body of research which evidences the effects learning context can have when it comes to linguistic improvements across different domains such as study abroad (see: Pérez-Vidal, 2014) CLIL (see: Dalton Puffer, 2009), immersion (see: Lyster, 2008),

instructed second language learning (see: Lowen, 2017) with more naturalistic contexts yielding the best results. Thus, we might consider EMI to be a positive environment for language learning. For example, those students who enroll in EMI programs have a demonstrated B2 level of English, as this is usually required for entry into EMI programs, in this way, EMI can be considered a period of increased exposure to the language and a context that offers a wider range of authentic communicative situations. It can also be considered somewhat naturalistic as learners are, perhaps for the first time in their English language learning histories, using English for authentic communication which is considered a powerful factor in language acquisition (García Mayo & Lázaro Ibarrola, 2015). In addition to the research just mentioned, it has also been reported that stakeholders believe EMI either should or does have a positive impact on English language performance. In fact, students state improving their English as one of the main reasons for enrolment in such programs, in sum, it seems to be a highly desired and even expected outcome of EMI education (Gundermann, 2014; Margić & Žeželić, 2015; Sert, 2008). However, there is little empirical evidence to support this belief, something to which we now turn in the following section.

2.3.1. Research on EMI contexts

Looking at the development of EMI in HE institutions research shows that young Europeans today view the incorporation of English as a natural progression of education and that they take speaking English on as part of their global identities (Henry & Goddard, 2015). From the exploratory research that has been conducted, we get a piece of the picture via reports from professors and in some cases also the students themselves. Some differences have been found by discipline, showing that the Sciences embrace EMI and the Humanities show a slight resistance to EMI (in the survey by Wachter & Maiworm, 2008, 2014) Airey (2012) theorizes the reason behind this as follows: Business and Science have hierarchical knowledge structures where advancements in the Sciences are made by integrating new knowledge with existing knowledge building upwards. In this structure, it is easier to switch language because information is simply added to what was known already. Whereas, the humanities are horizontal knowledge structures, which progress and develop by developing and creating new ways to describe the world or the processes and events that have occurred. Leading to new models and ways of thinking being constantly introduced, which makes

it more challenging to change the language of instruction because a change in language can result in a change in ideology. In a study of Physics professors in Sweden, Airey (2012) found evidence that Physics lecturers preferred teaching in English as demonstrated by the following quote: "As a lecturer in Physics, it is sometimes difficult to know how to express it in Swedish because English is really the professional language for physicists" (Airey, 2012, p.74). This is echoed in Unterberger (2012) where German professors surveyed also found English to be the natural choice for instruction in the Engineering field. In the same survey, some reported EMI lectures were easier than L1 lectures. However, the perceptions of the students do not always reflect these same views of the professors. For example, research looking at students' perspectives have found that they perceive more gains in studying in an additional language than losses according to a questionnaire involving 93 Hebrew and Arabic students studying through English and 47 Russian and Arabic students studying through Hebrew (Smith, 2004). In a survey at a Belgian university that encompassed the viewpoints of staff and students of five different faculties, a total of 627 participants found that lecturers favoured EMI over students, although they agreed that mother tongue should not be used in an EMI course (translating back and forth was undesirable). Both groups felt that their English skills improve as a by-product of teaching or studying in English, although students placed more emphasis on this, and hoped and expected to improve their language skills. This caused them to expect native-like lecturers whereas, lecturers focus on content and accepted far from native-like speech (Sercu, 2004). Regarding content learning, Airey and Linder, (2006) documented differences in learners' experiences of a lecture in either English or Swedish. Twenty-two undergraduate physics students at a Swedish university were asked to watch clips of the lectures and describe what they were thinking and doing during specific points of the lecture. All students reported that language of instruction played an insignificant role in content learning. However, reduced interaction was reported, higher focus on note-taking and difficulty concentrating on lectures while note-taking. An adaptation on part of the student was needed to adapt to lectures in English (reading ahead of time, interpreting notes later or not note taking in class etc.) and finally, students found lectures easier to follow when content was represented multiple times, for example, if it closely followed a book or the whiteboard was used a lot. Regarding the workload for the staff, most professors report more prep time and a harder workload when teaching in English (Tazl, 2011). Some reported trends at the Economics faculty at the university under study in this doctoral thesis are that professors notice students are more satisfied

in the short term if courses are taught in Catalan or Spanish but show higher satisfaction in the long term if the course is taught through English (Oliveras, 2014). This was also found in Biochemistry when EMI was initially introduced. The first year students were resistant and felt the challenge was overwhelming, whereas, the professors believed the difficulty lied in the 'language' of biochemistry and in the fact that content was challenging and not due to English being the medium of instruction (Oliva, 2014) these views contrast with a study carried out in Sweden, examining Swedish university professors' experiences when changing from lecturing in Swedish to lecturing in English (Airey, 2011). The study focused on how the discourse style of the lecture can change when switching to EMI. Through observation and interviews with lecturers, he found, that some changes occur when the language of lecture changes, say from Swedish to English. The most relevant changes are that professors feel they are less precise, they feel tightly bound to the plan, and they are less fluent and experience difficulty joking, telling stories, or giving spontaneous examples. Despite these communication challenges, little overall difference was found regarding actual lecture content between the Swedish and English lectures. These findings are supported by Tazl (2011), who administered a questionnaire to 8 lecturers and 66 students at an Austrian university. Findings showed lecturers identified lack of personal stories, jokes, and anecdotes in their lectures; although they reported equal content covered. All this research on lecturers' and students' experiences point out that there is a need for language support on both sides. This evidence is supported by Hellekjær (2010) who investigated learner comprehension in EMI classes and found that learners experience difficulty distinguishing the meanings of words, deciphering unfamiliar vocabulary and they report difficulties in taking notes. He urges universities to take language difficulties seriously and make more efforts to make lectures comprehensible by effective teaching methods, and provision of support to both faculty and students to improve English proficiency. However, it seems that due to the rapid implementation of EMI at universities, lecturers and support staff have had to adjust quite quickly to the change and despite the recognized need for support Wachter and Maiworm (2014) report that only one-third of institutions providing EMI provide some kind of language support to staff or students. Although it is important to mention that efforts are being made to find solutions in order to establish policies or regulations to establish, increase and maintain a certain level of quality assurance of their EMI programs (see Rubio-Alcalá & Moore, 2018; Studer & Gautschi, 2017; Valcke & Wilkinson, 2017)(Rubio-Alcalá & Moore, 2018; Valcke & Wilkinson, 2017). However,

this is an area of interest for future study and is not the focus of the thesis, so this issue is not discussed further.

2.3.2. Research on EMI and SLA outcomes

As stated, little research has been carried out on language learning outcomes as a result of EMI with a few exceptions. One study examined gains in listening, lexis, grammar and writing in EMI and semi-EMI learners found that only the semi-EMI group experienced significant gains on lexis, grammar and writing but not on listening (Ament & Pérez-Vidal, 2015). A different study, by Lei and Hu (2014) measured the effect of EMI on general English proficiency level in a group of first and second-year university students in China. They reported no significant differences in an oral interview nor in a written exam between the EMI group and the non-EMI group. Regarding pronunciation Ritcher (2017) found that semi-EMI learners improved and significantly outperformed non-EMI instruction students according to perceived foreign accent. Then regarding the effect of EMI on pragmatic abilities, Taguchi (2011) examined the development of pragmatic competence among first-year EMI university students in Japan. She investigated the appropriateness of expressing opinions in formal and informal settings. Results showed progress in informal contexts but none in formal contexts. In addition to these studies, there is evidence to suggest that academic contexts might not provide enough or the right kind of input for learners to improve pragmalinguistically (Bardovi-Harlig & Hartford, 1996). Thus, to summarize this section, it seems that there is little to no measurable improvement of English level after participation in EMI programs. However, more research is needed regarding more language domains in order to determine which domains might benefit from EMI and which may need extra support, which is a contribution this thesis would like to make.

2.4. **Individual differences and language learning outcomes**

Turning now to the field of study of IDs in SLA. The term IDs refers to a variety of factors such as attitudes, motivations, language aptitude, personality factors such as outgoingness and shyness,

and emotional factors such as enjoyment and anxiety. The factors focussed on in this doctoral dissertation are those of attitudes, motivations, and the emotional factors of enjoyment and anxiety.

One model used to research attitudes and motivation is the socio-educational model of second language acquisition developed most notably by Gardner and associates. In this model attitudes and motivation are argued to be linked to ultimate achievement in a second language (Gardner, 2007). Three central concepts to this model are those of integrativeness, attitudes towards the L2 and speakers of that language, and motivation. Integrativeness is defined as when the individual's interest in learning the language comes from a desire to interact with members of that language community or to learn more about that community. Attitudes were defined as the individual's reaction to the learning context (Masgoret & Gardner, 2003). In the socio-educational model, motivation is defined as goal-directed behaviour, an individual who expends effort, who is persistent and attentive and who 'displays a variety of behaviours that the unmotivated learner does not' (Masgoret & Gardner, 2003). A learner who was motivated to learn a language for external reasons such as to get a raise or because they needed to for work were thought to be instrumentally motivated, while those who were integratively motivated are interested in learning the language due to a desire to interact with members of that language community or to learn more about that community. It has been theorized that integrativeness along with attitudes towards the L2 community are the two variables that support motivation to learn a second language. For example, if someone desired to learn more about a certain L2 community they will be more likely to have high motivation to learn the language. From this description, it becomes visible that motivation is driven by and involves a dynamic interaction between attitudes towards the L2 speakers and the willingness to integrate. Findings from research on the socio-educational model have found that that motivation plays a part in classroom behaviour, persistence in language study, language retention, and acculturation, which in turn play a part in language acquisition (Gardner, 2001).

Despite the popularity and wealth of research on the socio-educational model, some researchers expressed dissatisfaction with the integrative model and felt that a new perspective was needed that could incorporate modern theories from psychology (Ushioda, 2013). There was an additional urge for the model to reflect the constant change and dynamicity of motivation (Ryan & Dörnyei, 2013). Thus, taking theories of motivation from modern psychologically Dörnyei

(2009) outlined the L2 motivational self-system. He refers to three components, the ideal L2 self, the ought to self, and L2 learning experience. He proposed that individuals all have conceptions about their future selves and that these self-conceptions represent what one might become, would like to become, or what they are afraid of becoming. After studying seven different variables integrativeness, instrumentality, the vitality of the community, attitudes towards L2 speakers, cultural interest, self-confidence, and milieu (parents, friends, and support) Dörneyi found that these elements determined whether a learner was mainly ought to self or ideal self motivated. Although, he felt, as Gardner also proposed, that the L2 learning experience was also a factor that drives learning effort (Dörneyi 2009), and just as in the socio-educational model proposed these three factors drive motivation (L2 effort). The ideal L2 self is created and maintained by internal factors, such as the positive disposition and willingness to put effort into learning. The ideal L2 self is furthermore created and maintained through a series of promotional and behavioural measures, for example learning patterns which enable achievement of the desired outcome or goal. The ought to L2 self motivational orientation, on the other hand, is driven and formed by external factors, for example, family influences, and preventative behaviours and measures such as learning patterns which aim to avoid a negative outcome. Ought to L2 self-motivated individuals tend to feel the pressures of their society, community or culture and seek to match these perceived expectations. In either case, these internal or external factors influence the learners' actions, behaviours, and decisions and therefore their language learning outcomes in the long run. While the L2 learning experience includes such factors as the individual's attitudes and emotions (e.g. anxiety and enjoyment) experienced while learning a language. These factors are dynamic and known to change over time, which is what is believed to cause motivation or L2 effort to also change over time, a discussion that will be returned to in more detail in Chapter 5. For now, we move on to review a few studies that have put this model into practice.

A study taking the L2 motivational self model was carried out by Papi and Teimouri (2014) it was carried out on 1278 secondary students in Iran. The results showed that when divided into either ought to self or ideal L2 self, the ought to self-group represented a prevention focus, whereas the ideal L2 self group represented a promotional focus, therefore, providing evidence to support Dörneyi's (2009) model. Furthermore, it was found that the ideal L2 self learners had higher scores on motivated behaviours and L2 proficiency and were significantly less anxious. Showing that promotion motives are stronger than prevention motives when it comes to language learning. In a

second study by Teimouri (2017) on adolescents in Iran, found that those learners who were ought to self motivated were less likely to have a clear vision of learning or using the language in the near future. And that their main motivations were to avoid negative outcomes, whereas the Ideal L2 self learners had clear visions of themselves and were more eager to advance in the L2. In addition, another study by Papi (2010) again on adolescents in Iran found that the ideal L2 self and the L2 learning experience decreased students' anxiety and that the ought to L2 self learners were more anxious. These studies show that there is a clear distinction between ought to and ideal L2 self learners and that perhaps the ideal L2 self is more likely to experience language gains, as they are reported to experience less anxiety, they are more engaged or willing to interact and they have even found that they tend to score better or proficiency tests.

Looking deeper into the L2 learning experience, this variable encompasses the emotional experience of the L2 learning environment (Dörneyi, 2009). Thus, it includes the emotions and attitudes experienced by the learners. For these reasons this doctoral thesis chose to study the variables of attitudes, and the emotions of anxiety and enjoyment in the L2 classroom. Foreign language anxiety (FLA) is described as is "the worry and unusually negative emotional reaction aroused when learning or using an L2" (MacIntyre, 2007, p.565). Some insightful research has been carried out investigating risk factors for FLA, for example, a study by Dewaele, Petrides, and Furnham (2008) measured sociobiographical variables and emotional intelligence and their effect of FLA. It was found that those with high emotional intelligence experienced less FLA and those who started learning languages at younger ages has less FLA. Those who had learned a language solely through formal instruction settings had higher FLA compared to those who had ICL or extracurricular use of the language. It is useful to know what type of learner or setting is more prone to experience or provoke FLA, as being anxious is known to deter or slow one's language learning progression. This is thought to be due to a reluctance to communicate, rather than a willingness to communicate or interact, which can encourage language learning (MacIntyre, 2007). Besides being a situation factor, FLA has also been identified as a personality trait (see Dewaele, 2013). This trait has been identified as a factor which inhibits foreign language learning, for example, Onwuegbuzie, Bailey, and Daley (2000), studied cognitive, affective, personality and demographic variables and their effects on language learning, it was found that academic achievement followed by FLA were the strongest predictors of language learning outcomes.

In contrast to anxiety, one might experience enjoyment and a willingness to communicate in the L2. Enjoyment in the L2 is thought to be the positive emotional arousal from interacting through an additional language (Dewaele, 2015). Over the past few years, researchers have begun to research the effects of positive emotions on language learning outcomes (see Dewaele & MacIntyre, 2014). So far, research points out that positive emotions such as enjoyment have significantly positive effects on language learning outcomes. For example, in a study carried out on Italian adolescents speaking German as an L2 MacIntyre and Vincze (2017) found that positive emotions were strongly related to motivated behaviour and that negative emotions did not always trigger motivation. In line with this study, Dewaele and Alfawzan (2018) compared the effects of enjoyment and anxiety to see if one played a stronger role than the other on lexical proficiency. They found that enjoyment had a more positive effect than anxiety did. The evidence from these studies highlights the importance of investigating both anxiety as well as enjoyment as they are both a strong predictors of L2 learning outcomes.

Finally, attitudes towards the L2 refer to subjective evaluations made regarding either individuals or groups of speakers and the language they speak (Myers-Scotton, 2006). This variable has also been shown to be a strong predictive factor of L2 development. This is thought to be due to the fact that attitudes determine one's willingness to communicate, integrate and even ability to imagine one's self as a speaker of the L2 in question (Dörnyei, 2009). Research on L2 attitudes shows that the attitudes one holds towards the L2 culture are related to L2 proficiency. This was found through two different studies one carried out in the Netherlands on 163 learners living abroad over a three-month period. van Niejenhuis, van der Werf and Otten (2015) measured participants' attitudes, integrativeness, and other personality traits. They report that cultural integrativeness and attitudes towards the L2 community were strong factors predicting L2 proficiency. Although they did note that other personality traits do play a role for example openness and degree of social initiative. These findings are in line with Yashima's (2002) study on 297 Japanese learners, she found that willingness to communicate and attitudes towards the L2 community influenced motivation, which in turn influenced L2 proficiency. This research just mentioned shows the importance of accounting for L2 attitudes as an ID in SLA studies. IDs seem to be a factor that changes over time and that has a strong impact on motivational behaviour. This brings us to the end of the literature review sections of this doctoral thesis, the following section offers a summary of the main findings and how they have influenced the choices made in this

dissertation. Following that the research questions, as well as the hypotheses based on the theories presented in the theoretical framework, are spelt out.

2.5. **Research questions and hypotheses**

As has been demonstrated in the literature review Chapter 2, there is a lack of research considering language outcomes as a result of EMI participation. In addition, there is a lack of research on the impact of IDs in the EMI context, as pointed out in section 2.4. Thus, this doctoral thesis seeks to make a twofold contribution to SLA research by providing some insights in these two areas of enquiry. In order to do that, the following research questions (RQs) were proposed.

1. Are there differences in overall frequency and variety of PMs used by advanced EFL undergraduates, as a result of different degrees of intensity of the EMI programmes (full- or semi-EMI) they were following as part of their degrees, and their length (2 or 3 years of exposure)?

2. Are there differences when comparing the frequency of textual and interpersonal PMs used by advanced EFL undergraduates, as a result of different degrees of intensity of the EMI programmes (full- or semi-EMI) they were following as part of their degrees, and their length (2 or 3 years of exposure)?

3. Do second year and third year advanced EFL undergraduates, following EMI programs and NS use PMs differently according to the distribution of textual PM use?
    a. If there are any differences between the groups for which functions do the groups use textual PMs differently?

4. Are there differences between advanced EFL undergraduates who follow either a full-EMI and a semi-EMI program according to the IDs, ideal L2 self, ought to self, attitudes, anxiety, and enjoyment? When compared all together, in the second year, and in the third year of studies.

5   Are there differences *within* the full-EMI and semi-EMI groups of advanced EFL undergraduates according to the IDs, ideal L2 self, ought to self, attitudes, anxiety, and enjoyment? When comparing second to third-year students.

6   Are there any relationships between advanced EFL undergraduate learner's IDs, ideal L2 self, ought to self, attitudes, anxiety and enjoyment and pragmatic marker use?

The following hypotheses have been put forward according to each of the RQs.

Hypotheses regarding RQ1 & 2: The hypotheses put forward for RQs one and two are that an increase in the overall frequency and variety of PMs used from second to third year of EMI is expected. It is also probably that a difference would be noted between full-EMI and semi-EMI groups, with the full-EMI expressing higher rates than the semi-EMI learners. Regarding the use of either textual and interpersonal PMs, a more accurate use of textual PMs as the EMI context might be expected as the EMI context may lend itself more towards the learning of these markers, although a progression in the usage of interpersonal markers is expected as well due to the fact that the learners are participating in an interactional setting where they are exposed to all types of PMs.

Hypotheses regarding RQ3 & 3a: A positive progression towards NS like use of textual markers is expected because as learners spend increased hours in the EMI context they have more opportunities to become aware of textual markers uptake them and make them available for language processing, as well as to be socialized in the academic discourse of their field which contains the use of textual PMs.

Hypotheses regarding RQ4, 5 & 6: It is hypothesized that EMI students may be more ideal self oriented, as they have freely chosen to study their degree via English and as results from CLIL and immersion studies show, these learners often exhibit stronger motivation than non-content language learners. It is not predicted that the motivational self changes from one year to the next but it is recognized that IDs are variable factors (via the dynamic systems model) so there may be a difference between the learners but no prediction is made according to how the two years of students might be different. Finally, regarding the relationship between IDs and PM use, it is predicted that those learners who are highly motivated, either ought to or ideal L2 self motivated might produce more PMs than poorly motivated learners, as they will be willing to change their

behaviours and adopt learning strategies that will help them reach target like norms. In addition, it is predicted that those who experience positive attitudes and have a positive attitude towards English will produce more PMs regardless of the type of EMI they are participating in.

3. The effects of English-medium instruction on the use of textual and interpersonal pragmatic markers

3.1. Introduction

Actually, like, so, I think, well, you know, *you see*, it can be hard to provide a clear definition of these linguistic items, in fact, linguists debate on their roles, classifications and how to approach their study. For example, the discourse analysis approach highlights coherence and the communicative effect of pragmatic markers (Redeker, 1990; Shiffrin, 1987), while the pragmatic approach takes a syntactic and semantic analysis (Fraser, 1999; Schourup, 1999) and finally, the approach stemming from relevance theory underscores the importance of cognition in the study of PMs (Rouchota, 1996). In the present study, the term pragmatic marker and the approach is a multifunctional one following Aijmer (2013) and Fischer (2014). PMs have been chosen for analysis due to their role in a speaker's oral fluency (Barón & Celaya, 2010; Trenchs-Parera, 2009), and overall communicative competence (Alcón & Safont Jordà, 2008; Halliday & Hasan, 1976). PMs are known to play an important role both in first and second language acquisition, as contested by their constant use during interaction by NS and NNSs alike. As Yates (2011) points out, PMs perform a variety of different discourse management functions and they tend to carry socio-pragmatic meaning. Research thus far asserts that, while languages rely on PMs to organize discourse, the frequency, distribution, and overlap of PM meanings from one language to another can vary greatly (LoCastro, 2001). This variation and difficulty pinpointing the core meaning and usage of PMs are what presents challenges for learners' pragmatic, and, partially, communicative development. Indeed, even after long periods of contact with the target language, learners are found to plateau when it comes to pragmatic learning (Romero-Trillo, 2002).

Regarding the context, specifically the use of English in university education, Europe has been a model of the exchange and integration of languages over many centuries, and while English

has been a world language for quite some time, its popularity and growth as a lingua franca in recent years is remarkable (Costa & Coleman, 2013). English as a lingua franca stems from both historical and political motives but is especially attributed to the globalization of the world's economy (Crystal, 2003). The role of English as the leading language in higher education is one of the motivating factors of this study. English is frequently used as a medium for instruction, by, and for non-native English speakers in many European countries where English is not the official language. This practice is known as EMI (Hellekjær & Hellekjær, 2015). The present study has two aims. The first is to report on the patterns of use of PMs by students who study via EMI, as described by the overall frequency and variety of types of PMs used. More specifically, we analyze the frequency of use of textual and interpersonal PMs. The second aim is to compare the use of PMs between a semi- and full-EMI program (from second to third year students) in order to detect if the different amounts of input provided by each program have an effect on the use of PMs.

3.2.   **Pragmatic marker functions and role in communicative competence**

The current study follows a functional pragmatic perspective (Aijmer, 2013; Andersen, 2001) which identifies PMs according to the main function the marker carries out in its context. Two types of markers have been identified, interpersonal and textual. According to Andersen (2001), interpersonal markers are used to express social functions and convey both the speaker's relation to a proposition and his or her conception of the hearer's relation to it. In contrast, textual markers are used to express relationships between units of discourse and involve how the speaker perceives the structural relationship between propositions. The different functions listed in Table 1 are the result of a review of the literature and a compilation of the current findings from authors investigating the functions of PMs in discourse.

To begin, within the broad function of textual markers there are a number of sub-functions identified, firstly, casual markers which are said to mark the relationship between two units of discourse, for example, '*because* x, y' or 'x *so/because* y' (Hyland, 2005; Müller, 2005). Secondly, continuation markers are thought to connect units of talk Fraser, 1999; Shiffrin, 1987) and include items such as *and, moreover, in addition*, or *so*. Thirdly, contrast markers such as *although, but, however, whereas*, and *even though* mark the contrast between the main arguments of each

utterance (Fraser, 1999). Fourthly, elaboration markers such as *for example, such as, like, I mean,* and *well* function to reformulate, to introduce examples or are used to mark the elaboration of discourse (Clark & Fox Tree, 2002). Next, the opening or closing of discourse markers are items such as *alright, now, ok, so, to conclude,* and *well* (Fraser, 1999; Cuenca, 2008). Then, there are topic shift or digression markers which are used to shift topics and include items such as *anyway, or, whatever, so, regarding, well,* and *then* (Buysse, 2012; Pons Bordería and Estellés Arguedas 2009). Following this, there are items such as *then, well, next, firstly, in the end,* and *after* which are used to present a sequence of events or mark temporal value (González, 2005) and are known as sequence markers. Finally, summary markers are those markers which mark the introduction to a concluding or summarizing segment of discourse, for example, *so, and, yeah, well, to conclude* and *that's all* (Buysse, 2012; Müller, 2005).

Now shifting to interpersonal markers, again there are sub-functions within this broad function. Firstly, markers such as *yeah, ok, sure, right*, and *I see* show receipt of information or signal understanding and listenership (Brinton, 1996; Shively, 2015). Secondly, markers to stimulate and maintain interaction are employed by the speaker in an effort to continue the flow of discourse for example, *yeah, right, really*, and *great*. Thirdly, alignment markers are used to mark alignment or create a closeness (or distance) between speakers and could include items such as *exactly, I agree, totally, yeah, that's right,* and, *yes* (Maschler, 1994). Fourthly, markers such as *you know*, and *I mean* project and signal shared knowledge and common ground (Carter & McCarthy, 2006; González, 2005). Next, there are markers which signal hesitation or repair such as *I mean* and *well*. Following this, there are attitude markers such as *I think, definitely, basically*, and *absolutely* which express the speakers' attitudes towards what is being uttered (Brinton, 1996). Finally, politeness markers serve to mitigate or downgrade and include items such as *I mean, well, sort of, kind of,* and *I think* (Chodorowska, 1997).

Table 1. Functions of Textual and Interpersonal Markers

Functions of Textual Markers	Functions of Interpersonal Markers
To show causal relationships to show consequence or effect, to mark the link between two clauses	To mark receipt of information, to show listenership and support to the speaker
To mark a contrast between two clauses or between two parts of the discourse	To stimulate or maintain interaction, to assess listener comprehension and engagement
To show a continuation of discourse on the same topic, to add additional information	To align or disalign oneself with the speaker by expressing agreement or disagreement
To elaborate, reformulate or exemplify	To mark joint construction of knowledge, mark common ground
To signal the opening or closing of discourse or mark the end or beginning of a turn	To signal hesitation, thinking or repair
To show the temporal sequence between clauses or between two parts of the discourse	To mark attitudes, stance or emotional reactions
To signal shifts or transitions of discourse topics, to mark digression from one topic to another or return to a previous topic	To intensify, boost, downgrade, hedge or serve as politeness markers
To indicate or preface results, summary, or conclusions	

This distinction between textual and interpersonal markers as made in the functional approach is a reflection of Bachman's model of communicative competence (1990), and Bachman and Palmer(1996). In this model, communicative competence is subdivided into two parts, organizational competence, and pragmatic competence. Organizational competence refers to grammatical accuracy and textual competence, while pragmatic competence encompasses the relationship between utterances and the speaker's relationship to them. Further evidence supporting the relationship between communicative competence and pragmatic marker use has been put forth by a number of researchers. For example, it has been argued that in order for second language users to achieve pragmatic fluency, they must master a series of discourse strategies, for example: initiate and change topics, 'carry weight' in a conversation, uptake and respond appropriately,

align one's turn by anticipating the end of others turns, and to appropriately fill or un-fill pauses (House, 2003). Furthermore, pragmatic fluency has been recognised as the ability to appropriately hedge, and down-tone utterances, to carry out appropriate speech acts according to the context, to save face, express politeness, or be intentionally vague, to mark and check shared knowledge and to reformulate or to monitor the state of shared knowledge (Carter & McCarthy, 2006; Lin, 2016) . These researchers argue that PMs are the units of speech that enable speakers to carry out these strategies.

Although the theoretical link between PMs and pragmatic fluency has been put forward few researchers have investigated it, with some exceptions, for example, Riggenbach, (1999) who analyzed oral data, and reported that those who were rated as highly fluent filled most of their pauses with a PM rather than leaving them empty. In line with this, Barón and Celaya (2010) measured incidental pragmatic learning from 144 learners. They reported that learners who filled their pauses with PMs were perceived to have more fluent speech. Additionally, Trenchs-Parera (2009) measured discourse moves such as: the opening and closing of speech acts, topic introduction, change, turn taking, use of routines, patterns and formulaic language, and found that after a study abroad period learners incorporated more PMs into their speech to effectively achieve the discourse moves and were considered to be more native-like. Similarly, Shively (2015)studied the use of PMs and perceived fluency, it was reported that those learners who were rated as more fluent used an overall wider variety and frequency of PMs. These studies demonstrate a relationship between PMs and perceived communicative competence.

Shifting to another perspective, some authors have argued that one's communicative competence can be enhanced through pragmatic awareness, defined by Alcón and Safont Jordà, (2008, p.193) as "conscious reflective, explicit knowledge about pragmatics". Most importantly for our study, among the previous works exploring pragmatic awareness, only two have investigated such awareness in relation to PMs in EMI classes. One of which, Flowerdew and Tauroza (1995), examined lecture comprehension of EMI students by playing a video lecture with all PMs removed to one group, and playing the lecture as normal to another group. They report that learners understood the lecture with PMs significantly better than those who watched the lecture without PMs. Similarly, Jung (2003) found that PMs in lectures played an important role in comprehension. These studies provide evidence that learners do attend to PMs during lectures,

and that they rely on PMs to process oral discourse on an implicit level. However, no studies have been found to investigate the production of PMs as a result of EMI, which is the particular issue the present study addresses.

3.2.1. The acquisition of pragmatic markers in instructed second language acquisition

Due to the multi-functional nature and minimal instruction of PMs in conventional instructed second language acquisition (ISLA) the integration of PMs into one's speech becomes a challenge (Bardovi-Harlig & Griffin, 2005). A reason for this may be the tendency for grammatical competence to take precedence over pragmatic competence. Despite this challenge, it is important for learners to integrate PMs into their speech otherwise undesired communication errors can ensue. For example, the way in which one is perceived when participating in communicative interaction is greatly determined by the style and the manner in which one interacts with their interlocutors and it seems that PMs are what aid the creation, maintenance, manner, and interaction between interlocutors during oral communication.

Regarding the acquisition of PMs, research analyzing the effects of ISLA shows that learners tend to use PMs for a much narrower scope and frequency than NSs do, as they seem to struggle to correctly identify the functions of the items. For example, Bu (2013) found that while learners used the same PMs as NSs, they did not use them for the same functions as the NSs did, resulting in both a restricted range and an unnatural use of PMs. Müller (2005) reported similar findings; she found that in addition to differing patterns of PM use, learners also assigned new functions to PMs not found in the native discourse. Other studies report an over or underuse of PMs compared to NSs' use. For example, Liu (2016) studied a high and a low exposure group and found the high exposure group used PMs at a higher rate than the low ISLA exposure group. It was further noted that the functions the learners used the PMs for differed between both the learner groups and the NSs group. Similarly, Fung and Carter (2007) investigated types of PMs used, and found that learners in ISLA contexts used textual markers at high frequencies and interpersonal markers more sparingly and that NSs used PMs for a much wider variety of functions than the learners did. The authors argue that the use of PMs reflects the type of input they receive. Research has also detected a correlation between the overall frequency and variety of PM use and overall language proficiency. Specifically, low-proficiency groups produce less PMs as well as a lesser

variety than advanced groups do. So it seems that, as learners increase their overall use of PMs, the variety of functions they use them for widens as well (Neary-Sundquist, 2014). To summarize, research thus far suggests that learners appear to use PMs at a lesser frequency and variety than NS do and that as proficiency and input increase so too do frequency and variety of PMs used. It is also clear that learners struggle to identify and incorporate the wide range of functions that PMs can have, especially interpersonal markers, thus committing errors in use, overusing or underusing certain PMs. Furthermore, it seems ISLA learners do not receive enough direct instruction on PM use (Vellenga, 2004) and that they seem to learn and use them on an implicit level, therefore these studies provide evidence that there is a strong need for the non-native speakers' to use PMs in their target language, both for their own as well as for their interlocutor's benefit.

3.3.   English-medium instruction in higher education

English has quickly established itself as the dominant language in higher education (Wilkinson, 2004) This is particularly evident among graduate programs where the amount of EMI courses has tripled in number over the past decade (Wachter & Maiworm, 2014). Three driving factors have contributed to the rise in EMI programs across Europe. Firstly, offering programs through English breaks down language barriers for international faculty, and thus, attracts the highest qualified and most knowledgeable lecturers, and researchers. Similarly, the adoption of EMI programs opens doors for international students and increases revenue; and thirdly, EMI provides, creates, and fosters an international environment which benefits the local university's staff and students (Earls, 2016). The term EMI has come to refer to many different types of programs, in fact, implementation and practice of EMI differs according to each institution's, and nation's language policy and goals. What is of interest to the present study is the intention of language learning within these programs. For example, Knapp (2011) identified three types of EMI: type one, international EMI programs, these are mainly master and doctoral level courses which are designed to attract international students. International EMI courses do not state explicit language learning goals on the curriculum and are instead focused solely on teaching the content of the course, English is viewed as a means to communicate and deliver the course contents. Type two EMI courses are geared towards students of English linguistics and literature or future English teachers; these programs have clear language learning goals and include explicit formal language instruction courses. Type three EMI courses are aimed at local students in any subject, with a twofold goal,

to provide specialization in the field of study, and to prepare students to use English in their professional lives. These courses are often undergraduate or master degree programs. This third type has implicit language learning goals, while they are not stated officially, nor actively supported in any way. For example, Gundermann asserted that in the higher education context the use of "English is linked to a language learning goal." And that "In such contexts, the use of English often fulfills the purpose of practicing and enhancing language skills, alongside with content learning" (2014, p.42-43). This implicit language learning goal has been confirmed by other researchers, namely Margić and Žeželić (2015), and Sert (2008) who found that in the Croatian and Turkish contexts respectively, language improvements were expected from participation in EMI and so, it seems evident that whether stated explicitly or not, stakeholders expect linguistic gains from participation in EMI. However, language learning via EMI is yet to be confirmed by empirical research as noted by Pecorari, Shaw, Irvine, and Malmström:

> There is a widespread belief that incorporating elements of English into the curriculum has the serendipitous effect of promoting incidental language learning. […] this belief rests on a number of tacit and largely untested ideas. (2011, p.57)

This claim points to a need for further investigation into language learning in EMI.

3.3.1. The impact of English-medium instruction on second language acquisition

Although SLA in the EMI context has not been widely investigated to date, there are arguments to suggest it may contribute to language learning. For example, the authenticity of interaction has been reported to positively stimulate acquisition as learners are considered to be cognitively engaged (García Mayo & Lázaro Ibarrola, 2015). In the present study, participants attend lectures and seminars and interact with peers and professors. These situations oblige them to process, reformulate and reproduce what they have learned through coursework. In addition, they are expected to communicate spontaneously through oral, digital, and written means. These factors, combined with increased contact hours with English, provide opportunities for language learning, which may lead us to consider EMI to be a stimulating environment for language gains, in principle. However, there are some factors which may hinder language improvement in EMI contexts. For example, students are generally required to have a communicative level of English

in order to enroll in EMI programs, but this level may either be low or not properly tested. In some cases, due to relatively low initial level in their communication and comprehension skills, EMI alone may not be enough to enhance students' proficiency in the target language (Harley, Allen, Cummins & Swain, 1990). Secondly, most EMI programs do not offer any focus on language, which contrasts to what research from the ISLA context has found, namely, that without explicit instruction, correction, and focused teaching, content-based language learners may not reach target like production (Lyster, 2017). This lack of correction and instruction combined with other features of communication strategies in English as a Lingua Franca contexts– as EMI can be considered - such as tendencies to 'let it pass' and 'make it normal' when linguistic errors are made, this may prevent language improvement from occurring in this context (see Firth, 1996; House, 1993) Other factors that may prevent language improvement are the intentions, attitudes, and motivations of the students themselves. For example, EMI students are focused on learning the course content in order to complete their degree, they report dedicating very little time to studying English, but more time and effort to reading and preparing for their courses (Sert, 2008; Tazl, 2011).

Turning now to empirical research on language acquisition in EMI, we find scarce data, studies thus far provide little evidence of language improvement. Firstly, Lei and Hu (2014) published a study measuring the effect of EMI on English language proficiency in a group of first and second-year university students in China. They reported no significant differences in an oral interview nor in a written exam between the EMI group and the non-EMI group. In line with this study, Ament and Pérez-Vidal (2015) found no significant differences between EMI and semi-EMI learners according to listening or writing scores. However, an improvement on grammar scores was reported in the semi-EMI group, which was interpreted as a reflection of practice in class leading to automatization. In contrast to these, a study investigating pronunciation by Ritcher(2017) found that semi-EMI learners improved and significantly outperformed non-EMI instruction students according to perceived foreign accent. Besides these studies, there are two studies that investigate the effect of EMI on pragmatic abilities. Taguchi (2011) examined the development of pragmatic competence among 48 first-year students in an EMI college in Japan. She investigated the appropriateness of expressing opinions in formal and informal settings. Results showed progress in informal contexts but none in formal contexts. In a different study, Ament and Barón(2018) examined the use of PMs among EMI and non-EMI students. They found that EMI students produced a higher frequency of PMs and that EMI students signposted more

clearly, something that was attributed to an increased use of structural PMs. The non-EMI students, on the other hand, used more referential PMs which may be the first and easiest category of PMs to acquire. To summarize, research so far shows that incidental linguistic improvement from EMI participation is minimal with the exception of the domain of pronunciation and that semi-EMI participants may improve more than full-EMI participants.

3.4.   **Objectives of the study**

Thus, the current study has been undertaken with a two-fold objective: firstly to measure the use of PMs in two different intensity EMI programs, a full intensity (full-EMI) and a low intensity (semi-EMI), across two years of study (second and third year). And secondly, to examine the following four variables: (i) overall frequency of use, (ii) variety of types of PMs used, (iii) frequency of use of textual PMs, and (ix) frequency of use of interpersonal PMs in each of the programs. Therefore, the following two research questions have been established.

1.   Are there any differences in overall frequency and variety of PMs used as a result of different degrees of intensity of the EMI programmes (full- or semi-EMI) and length (2 or 3 years of exposure) to EMI?

2.   Are there any differences when comparing the frequency of textual and interpersonal PMs used as a result of different degrees of intensity of the EMI programmes (full- or semi-EMI) and length (2 or 3 years of exposure) of EMI?

3.5.   **Methodology**

3.5.1. Design and participants

The study compares full-EMI and semi-EMI learners in their second year of study, with full-EMI and semi-EMI learners in their third year of study. It adopts a cross-sectional design. Participants were ninety-seven students enrolled in an undergraduate degree in Economics at a university in Spain. After completing a background questionnaire and language proficiency test to ensure homogeneity, data from eighty-two participants were used. Thirty-seven participants were second-year students, sixteen of which were enrolled in a semi-EMI program (henceforth SIM2), and twenty-one of which in a full-EMI program (henceforth IM2). Another thirty-five participants

were in their third year of studies in the same programs, eighteen of which in a semi-EMI (henceforth SIM3) and seventeen of which in a full-EMI (henceforth IM3). Data were also collected from a control group of ten native speakers to serve as a baseline for comparison (henceforth NS group). Results from the language background questionnaire revealed that 88% of the participants were Spanish/Catalan bilinguals and these languages were also the languages of their previous education. While 12% were from other language backgrounds (Basque, Slovenian, Chinese, Serbian and Ukrainian). All participants reported English as a third language. The mean age of participants was twenty, 41% were male, and 56% were female (see table 2).

The full-EMI groups were enrolled in an International Business and Economics degree which is taught completely through the English language. Participants in the semi-EMI groups were enrolled in either Economics or Business Administration at the same university but had only two of their courses taught through the English language in the second and third year of studies. Considering that each degree programme consists of 425 contact hours per academic year, for the full-EMI group, all 425 hours are delivered through the English language, while the semi-EMI group had an exposure of 35 contact hours. Table 2 provides the number of cumulative hours spent in EMI per group and other baseline data just mentioned.

Table 2. Participants, design, and hours of exposure to EMI

Experimental Groups	IM2	IM3	SIM2	SIM3	NSs
Number (Age)	21(19)	17(20)	16(19)	18(20)	10(22)
Cumulative Hours of EMI	637.5	1112.5	35	70	n/a
First language	16 – Cat/Sp 5 – Other	17- Cat/Sp	15-Cat/Sp 1 - Other	14 – Cat/Sp 4 - Other	10 - Eng
Year of study at the time of data collection	2nd year	3rd year	2nd year	3rd year	4th or 5th year

The vast majority of the faculty of Economics at the university in question share the same L1 as the majority of students. At the time of data collection, there was one foreign professor who was

Austrian. There were no native English speakers on staff at the faculty at the time of data collection. The lecturer's level of English is not certified nor controlled, however, there are programs offered on behalf of the university to provide both training and support to faculty who teach through English. Professors report speaking English exclusively during class time and do not provide students with explicit language instruction or correction, save a glossary providing a translation of some key terms[1].

3.5.2. Instruments

Three instruments were designed for this study: a language background questionnaire, a monologue, and an oral interaction task. All instruments were piloted previous to the study and were found to be effective and adequate at eliciting the desired type of language, they were also found to be reliable (Ament & Barón, 2018).

The language background questionnaire established participants' previous exposure to English as well as their English language learning backgrounds. The online Cambridge placement test was administered to control for proficiency. Those participants who scored either over C1 or below B1 on the Common European Framework of Reference for Language (CEFR) were excluded from the analysis[2].

Two instruments were used to collect oral data, a monologue and an interaction task. Two different types of tasks were chosen to broaden the communicative contexts the speakers were placed in and therefore provide more opportunities for a range of PMs to occur in the data. The monologue task (henceforth MON) was completed individually, participants were asked to introduce themselves to the researcher and include information regarding the languages they speak, their English language learning experience, which degree they were taking and why they had chosen to take it in English.

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[1] Data collected via personal communication with a group of faculty members.
[2] Only those participants with a B1, B2 or C1 were kept in the sample.
The university where data have been collected has had a linguistic policy which incorporated a decided policy and training to support EMI teachers (see www.upf.edu.llengues).

The interaction task (henceforth INT) required participants to engage in conversation with another participant. Participants were asked three different questions that were related to their field of study. This method of data collection was chosen for three interrelated reasons: i) it has been advocated in the literature that elicited conversations or "interactions arranged for research purposes can be most useful sources of data" (Kasper & Rose, 2002, p.80), i) this type of procedure can elicit, interpersonal functions, coordinated speaker-listener functions, turn-taking, and back-channeling, and finally, iii) because it has been argued that elicited conversation can tap into learners interactional competence (Kasper & Rose, 2002).

3.5.3. Procedure

Participants completed the web questionnaire and the proficiency test online. Oral tests were carried out in sound attenuated cabins. The MON task was carried out first; two minutes were given to record the participants' responses. This was followed by the INT task. For this task, participants were organized into pairs, and they recorded themselves[3]. In response to the questions, the participants were asked to include their opinions, personal experiences and anything else they felt they wanted to express. Participants were asked to discuss each question for two minutes.

3.5.4. Analysis

Audio recordings were transcribed in the *Codes for the Human Analysis of Transcripts* (CHAT) program using *computerized language analysis* (CLAN) software and coding norms (MacWhinney, 2000). Transcriptions were verified to ensure accuracy. The researchers controlled the coding by having another researcher re-coded 25% of the transcripts. Then, the codification used between the two researchers was compared to ensure accuracy. The researchers identified and tagged each PM used in the MON and INT task as either textual or interpersonal. This was done by examining the context and the discourse before and after the item occurred. Table 3 includes examples of all items in the data which were coded as PMs.

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[3]Audacity software was used for recording data.

Table 3. Functions and examples of items from the data

Functions of Textual Markers	Items found in the data	Functions of Interpersonal Markers	Items found in the data
To show causal and consequential relationships	*Because, so, and*	To signal receipt of information	*Okay, right, yeah*
To indicate results/summary	*So, like, well, and, yeah*	To show support to the interlocutor	*Okay, great, I know, exactly, sure*
To indicate conclusions	*Finally, then*	To align oneself with the speaker and to signal the joint construction of knowledge	*Exactly, I agree, totally, yeah, that's right, yes, and, in addition*
To mark contrast	*But, however, and, although*	To stimulate interaction	*Right? Yeah? Really? Great!*
To mark disjunction or digression	*Or, anyway, or something, or so, whatever,*	To hesitate or show repair	*I mean, well, sort of, kind of, I think*
To signal the opening or closing of discourse	*Okay, right, alright, so, let's start, to conclude/ in conclusion, yeah, that's it, that's all*	To denote thinking processes	*Well, I think,*
To signal shifts or transition of discourse	*So, well, and then, and what about, and how about, and yeah, but*	To assess the interlocutor's knowledge	*Right? You know what I mean?*
To show temporal sequence	*First, firstly, secondly, next, then, finally, now, first of all*	To act as a hedging device	*I think, I'm not sure, kind of, sort of, you know?*
To show a continuation of the discourse	*And, yeah, because, so*	To indicate attitudes	*I think, definitely, basically, absolutely, exactly*
To Elaborate, Reformulate and exemplify	*I mean, like, and, it's like, that is, for example*		

to what is known regarding the effects of EMI on learners' language, and, more specifically, on PMs. It reveals that learners experience positive progress via participation in a semi- or full-EMI program, as both groups improved significantly from year two to year three. This finding demonstrates that even with very few EMI hours the semi-EMI group experiences significant improvement, in fact, they experience the same progression pattern as their full-EMI counterparts. The findings also show that, although overall proficiency has been found to correlate with increased use of PMs, as found in such studies as Neary-Sundquist, (2014), and Fernández, Gates Tapia, and Lu (2014) who report that higher proficiency learners produced higher frequency and varieties of PMs, proficiency is not the only factor that affects the production of PMs, and other elements such as intensity of exposure play significant roles in pragmatic learning. This finding is also in line with Matsumura's (2003) study, in which overall exposure was demonstrated to be a stronger predictor of pragmatic development than proficiency level.

3.7.2. The frequency of Textual and Interpersonal PMs

Results from the second research question align with Fung and Carter's (2007) findings which showed that learners relied more on textual PMs than on interpersonal ones. A suggested explanation for this high rate of production of textual markers is the context of learning as noted by Ament and Barón (2018). EMI is a formal, academic setting, where textual PMs are likely to occur at much higher frequencies than interpersonal PMs. If we reflect on the functions of textual PMs such as to structure discourse, mark openings, and closings, emphasise, and shift topics, to name a few, we can see a parallel between these PMs and the types of pragmatic functions lecturers employ when delivering their courses and therefore, which PMs are available in the input. Thus, textual markers may be argued to be more salient as well as more critical to the understanding of EMI courses, as was attested in both Flowerdew and Tarouza, (1995) and in Jung (2003). So, in sum, the importance of textual PMs to the comprehension of lectures, combined with the frequent use of textual PMs in academic discourse may explain why learners produce these markers at high frequencies.

The pattern of use of textual markers contrasts with that of interpersonal markers. Interpersonal markers were used much less frequently. Additionally, significant differences were not found for either the amount of exposure nor for the intensity of immersion in either group. This could be because interpersonal markers are less salient in the EMI context and the pragmatic

information they provide is not essential to comprehension. Due to this factor, learners might have a tendency to skip over interpersonal markers without processing them; this would mean these markers are cognitively attended to less than textual PMs are. This finding is in line with Firth (1996) who suggested that if a linguistic item is not essential for communication/comprehension it is often skipped over and left uncorrected as it does not provide crucial information. This finding echoes House's (2003) results, who noted a trend for learners to not mark their relation to a proposition, and, furthermore, to not take the hearer's relation to the proposition into consideration. The participants of the present study were found to behave in a similar manner to House's participants in that they were reported to use hardly any interpersonal PMs at all, and instead, use raw negation, addition, and rejections.

Another contrast between the use of interpersonal PMs and textual PMs is that they are rarely written but instead are used at very high frequencies amongst native speakers during oral communication while on the contrary, textual PMs are highly functional in writing, and therefore, are reinforced even further in the input of the academic setting. Thus, the underuse of interpersonal markers might be explained by the learners having little exposure to English outside of the EMI classroom, and even less contact with native speakers (who use PMs more frequently than learners)[5]. In fact, in previous studies, it has been found that learners improve and increase their use of PMs as they socialize and integrate into the local community (Shively, 2015). This may be why no improvement is detected on this measure in the present study, as EMI learners have little opportunity to socialize or integrate into an English-speaking community, certainly less than a study abroad or naturalistic settings would provide (DeKyser, 2007; Pérez-Vidal, 2014a). This lack of socialization may become especially clear when measuring the production of interpersonal markers, as the use of interpersonal PMs is closely related to the speech norms of a local community (Liu, 2016) and in EMI there is no such speech community. Interpreting the results in light of the communicative competence model, it becomes clear that EMI learners are very aware and have a highly developed organizational competence as is reflected through their highly developed use of textual PMs and, in contrast, their pragmatic competence remains unchanged by EMI exposure (Alcón & Safont Jordà, 2008; Bachman, 1990). Finally, the results from this study

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[5] The professors in the present study were not native speakers of English and this could have further affected the low frequency of interpersonal PMs in the input. Although this is speculation, class observation is necessary to confirm this hypothesis.

seem to suggest that textual PMs may be more readily or easily acquired compared to interpersonal PMs. Evidence suggests that at least in the EMI context textual PMs are incorporated into learner's speech before interpersonal PMs.

3.8.   **Conclusions**

Results from this study highlight a number of patterns, firstly, both full-EMI and semi-EMI programs have significant effects on the overall frequency of PMs, and variety of PMs. Secondly, as time spent in either full- or semi-EMI program increases (from year 2 to year 3), learners experience significant increases in the overall frequency of PMs, and variety of PMs. And finally, both full–EMI and semi-EMI have positive effects on the frequency of use of textual PMs, but insignificant effects on the frequency of use of interpersonal PMs. Thus, it appears that learners experience cumulative gains over time spent in EMI and that even taking just a few courses through English can have a real impact on oral output. More specifically, due to the increased input received, learners begin to modify their output by incorporating more and more PMs into their speech, while they make progress in recognizing and identifying the functions of a wider variety of PMs. Additionally, the findings in our study show that textual PMs are acquired before interpersonal PMs. What remains unclear is whether this pattern of acquisition is due to the EMI context or if PMs are acquired in this order for other reasons not investigated in this study. Furthermore, it seems that while EMI provides plenty of input and language learning opportunities, there may be other factors necessary in order for learners to integrate interpersonal PMs into their language skills. And finally, as a consequence of the previous results coming out of our data, it would seem to be the case that organizational competence might be developed via EMI but that EMI would not so easily lend itself to the enhancement of pragmatic competence.

Some limitations of the present study are that although gains in the use of PMs have been reported, further research is necessary to assess other language domains before making large-scale policy changes. Secondly, the data were collected in a simulated conversation, it would be interesting to gather natural occurring data to get a more accurate representation of the learner's output. And finally, it would be useful to conduct a longitudinal study rather than a cross-sectional to see the change within each participant and be able to draw stronger conclusions.

Finally, the implications of the findings thus far would appear to be firstly, that a full-EMI program may not be necessary since significant language gains occur in semi-EMI, this then creates space for a more balanced approach towards multilingual policies, where local languages could be supported and strengthened without any loss to English or any other language. This addresses a concern brought up by many communities on how to implement parallel language policies in Sweden (Bolton & Kuteeva, 2012) and The Basque Country (Doiz, Lasagabaster, & Sierra, 2014) to name only two. This study also provides evidence that more support is needed via giving more attention to the explicit teaching of PMs especially interpersonal ones. Explicit teaching or the implementation of language support for EMI students may increase learner's noticing of PMs and could lead to an accelerated acquisition of this and other language features.

4. The Functional uses of Textual Pragmatic Markers from Native Speakers and English-medium Instruction Learners

4.1. Introduction

PMs are lexical items that tend to be used at high frequencies especially in oral speech and often are employed on a somewhat unconscious level (Maschler, 1994). They are used by speakers in order to signpost their discourse for both their own as well as for their interlocutor's benefit. It is through the use of PMs that one indicates how another should interpret a message. Some of the functions of PMs include: aiding fluency, contributing to structure, cohesion and intelligibility; they fulfill interpersonal, textual, pragmatic and metapragmatic functions (Barón & Celaya, 2010; Halliday & Hasan, 1976; House, 2013). Research to date has taken into consideration NS acquisition and use of PMs as well as NNS acquisition and use of PMs. Research on NSs shows that PMs use is largely unconscious, and makes up a large portion of NS speech. Additionally, research shows that PM use can vary greatly from speaker to speaker involving factors such as age, gender, socio-economic status, and geographic region (Andersen, 2001; Shiffrin, 1987). While research on learners shows that PMs are used more sparingly and often at lower frequencies, varieties and distributions (Neary-Sundquist, 2014; Wei, 2011) compared NS. Although few

studies have taken a functional perspective (Ament, Pérez-Vidal, & Barón, 2018) a contribution this study would like to make.

The present study takes place in a trilingual university in Catalonia, where degrees at all levels are offered through EMI, a practice which has been steadily increasing across Europe and the world over recent decades. EMI is described as a context in which English is used as the medium for instruction by and for NNSs of English in countries where English is not an official language (Hellekjær & Hellekjær, 2015; Wachter & Maiworm, 2014). Research in this field has steadily increased as stakeholders demand to know what the content, as well as linguistic outcomes of such a learning context, are. So far research points towards comparable content learning but little measurable linguistic improvements (Ament & Pérez-Vidal, 2015; Harley et al., 1990; Lei & Hu, 2014).

The focus of this chapter is to compare the different functional uses of textual PMs between NS and NNS with two specific aims, the first is to report on the distribution of the use of PMs and the second aim is to identify for which functions learners compared to NSs use textual PMs when performing the same communication tasks. This may shed light on the linguistic outcomes we can expect from participation in an EMI context.

4.2.   A Functional Pragmatic Approach to Pragmatic Markers

4.2.1. The development of a functional pragmatic approach to the study of PMs

Historically, research regarding PMs has taken a formal structural approach and has worked firstly, to identify, and secondly, to classify PMs into a word class (Brinton, 1996; Fraser, 1999; Schourup, 2011). Main findings from this research prove that it has been quite a challenge which has been attributed, at least partially, to their highly context-dependent and multifunctional nature. However, despite these challenges, previous research suggests that PMs may have certain tendencies, for example, they seem to carry little semantic meaning (Lewis, 2006; Mosegaard Hansen, 2006). This semantic weakening is thought to be the result of a degrammaticalization process which contributes to their multi-functional capabilities (Brinton 1996, Waltereit, 2006).

Lexical items that may be considered PMs also tend to occur proposition initial or final and are propositional external (Mosegaard Hansen, 2006; Schourup, 1999), meaning they do not contribute to the truth conditions of an utterance (Wilson & Sperber, 1993)and instead are thought to operate on different communication planes or domains (Shiffrin, 1987) thought of as being procedural rather than conceptual (Redeker, 1990). Despite these advances, some limitations to the structural approach have been pointed out, for example, to date the approach only accounts for the behavioural tendencies of PMs, and what is more, most characteristics identified are not exclusive to PMs making the theory problematic (Fischer, 2014; Pons Bordería, 2006). The recognition of the limitations of the structural approach has encouraged a shift in perspective way from a grammatical/structural approach towards a more pragmatic/functional approach (Buysse 2015, 2012; Crible & Cuenca 2017; House 2013; Fernández, Gates Tapia, & Lu 2014; Fung & Carter 2007; Wei 2011).

The present study follows this line of research which can be described as a functional pragmatic approach (Aijmer, 2016; Kerstin Fischer, 2013). This approach is rooted in relevance theory. From this perspective, utterance interpretation is considered to be an inferential process which includes contextual and interpersonal factors, in contrast to a process which occurs in isolation and only on the structural level (Andersen, 2001; Redeker, 1990). Thus, during communication, in order to instruct a listener as to how to interpret ones' discourse or to make explicit the intended meaning of an utterance, there is a necessity for a linguistic item to carry out these functions. Under this theory, pragmatic markers are the key items that make it possible for an interlocutor to interpret and accurately identify implicit and explicit meanings (Wilson & Sperber, 1993). Conversation analysis has also contributed to the approach arguing that PMs carry out important interactional functions (Shiffrin, 1987). Both approaches note the context of the PM is key to its interpretation, which leads to the recognition of the multifunctionality of PMs in that they may carry out more than one function in one specific context, and in turn can carry out different functions in different contexts (Fischer, 2014).

4.2.2. Textual and interpersonal markers

PMs are thought to function for either mainly interpersonal or textual purposes (Andersen, 2001; Halliday, 2004; Hyland, 2017; Redeker, 1990; Rouchota, 1996; Shiffrin, 1987). Textual functions are used to refer to the discourse directly, create and maintain discourse connections and structure which are then taken up by the interlocutor and facilitate smooth interpretation of the flow of discourse. In contrast, interpersonal functions involve marking the relationship or interaction between speaker and hearer, or the relationship between the speaker and hearer and the discourse. Interpersonal functions include marking the attitudes of the speaker and the expression of personal opinions towards the discourse. The present study adopts this view and acknowledges Andersen (2001) in her belief that it is possible to determine the function of a PM in context as either mainly textual or mainly interpersonal via pragmatic interpretation.

4.2.3. Functions of textual markers

Within the overarching function of textuality, eight different sub-functions seem to be clearly identified in previous research: causal markers, contrastive markers, continuation markers, elaboration markers, opening and closing of discourse marking markers, sequential markers, topic shift/digression markers, and summary/conclusion markers (see Table 6).

Table 6. Functions of Textual Markers

Causal markers	*To show causal relationships to show consequence or effect, to mark the link between two clauses, give the rationale (cause) to an argument.*
Contrastive markers	*To mark a contrast between two clauses or between two parts of the discourse, to show a contrast from an expected response or statement and the actual one.*
Continuation markers (connectors)	*To show a continuation of discourse on the same topic, to add additional information in order to facilitate complete comprehension.*
Elaboration markers	*To elaborate, reformulate or exemplify.*
Opening or closing of discourse markers	*To signal the opening or closing of discourse or mark the end or beginning of a turn.*
Sequencing markers	*To show the temporal sequence between clauses or between two parts of the discourse, to structure events and ideas temporally.*
Topic shift or digression markers	*To signal shifts or transitions of discourse topics, to mark digression from one topic to another or return to a previous topic.*
Summary or concluding markers	*To indicate or preface results, summary, or conclusions.*

Table 6. is a compilation of previous research on the identification of the functions of textual markers taken largely from (Ament, Pérez-Vidal, & Barón 2018). Firstly, casual markers are said to mark the relationship between two units of discourse, for example, '*because* x, y' or x *so/because* y' (Hyland, 2005; Müller, 2005). Continuation markers (sometimes referred to as connectors) function to connect units of talk (Fraser, 1999; Shiffrin, 1987). Items such as *and, moreover, in addition*, or *so* permit the speaker to add more information and are thought to possibly aid a complete comprehension of what is being communicated (González, 2005). Contrast markers such as *although, but, however, whereas*, and *even though* mark the contrast between the main arguments of each utterance (Fraser, 1999) as well as function to show disagreement or contrast to what is expected (Cuenca, 2008). Elaboration markers such as *for example, such as, like, I mean,* and *well* function as reformulation markers, example markers or are used to mark the elaboration

of discourse (Clark & Fox Tree, 2002; Cuenca, 2008). Next, opening or closing of discourse markers such as *alright, now, ok, so, to conclude,* and *well* function to open and close turns and topics of discourse (Cuenca, 2008; Fraser, 1999; Hyland, 2005). Topic shift or digression markers are used to shift topics, for example, items such as *anyway, or, whatever, so, regarding, well,* and *then* can function in this way and are used to shift the conversation either away from or back to a discourse topic (Buysse, 2012; Fung & Carter, 2007; González, 2005; Pons Bordería & Estellés Arguedas, 2009). Items such as *then, well, next, firstly, in the end,* and *after* are used to present a sequence of events or mark temporal value (González, 2005). Finally, summary markers are those markers which mark the introduction to a concluding or summarizing segment of discourse, for example, *so, and, yeah, well, to conclude* and *that's all* (Buysse, 2012; Müller, 2005). These are the functions identified and used for analysis of PMs in the present study.

4.3. The acquisition of pragmatic markers in the EMI context

Regarding the acquisition of PMs, research thus far asserts that while languages rely on PMs to organize discourse, the frequency, variety, distribution, and overlap of PM meanings from one language to another can vary greatly (González, 2005; Liu, 2013; LoCastro, 2001; Zufferey & Gygax, Pascal, 2017). This variation can present challenges for learners' pragmatic and communicative development, as it can be difficult to interpret and employ PMs in an L2 due to their often elusive meanings (Jucker & Ziv, 1998) as well as the discrepancy in use and function between L1 and L2. Indeed, even after long periods of contact with the target language, advanced learners still experience difficulty or even have been found to plateau when it comes to pragmatic marker learning (Romero-Trillo, 2002). Another important factor related to the acquisition of PMs is the context of learning and amount and type of input and interaction a learner receives (Ament & Barón, 2018; Hellermann & Vergun, 2007; Polat, 2011).

4.4. The functions of pragmatic markers in the EMI context

EMI can be characterized as a formal, academic setting, where English is used as a lingua franca most participants come from the same language background and use English to discuss the content

of the courses (Smit & Dafouz, 2012; Unterberger, 2012). Professors in these settings may have different levels of oral fluency in English, but despite this, it is well documented that the lecturers are knowledgeable and especially familiar with the appropriate discourse for their field of specialty (Airey, 2012). Lectures do not correct student's language errors and the main concern is content. Regarding what type of language input the EMI class offers; research thus far suggests that due to the high specificity of university classrooms the language input may be a far cry from what occurs during less formal interactions. This may be even more exaggerated in terms of PMs as they are also extremely context dependent. Research shows that classrooms tend to offer a reduced array of communication situations compared to other more natural type settings, for example, there is a limited range of social interactions, shorter and less complex discourse organization, minimal marking of opening and closing of discourse and fewer discourse and politeness markers (Lörscher, 1986). Furthermore, it has been noted that non-native English speaking professors may use a lesser variety of PMs in their lectures than native English speakers (Zare & Keivanloo-Shahrestanaki, 2017). In addition to that, researchers have noted that non-native lecturers are less likely to use interpersonal stories and anecdotes, and tend to stick to content as much as possible (Kuteeva & Airey, 2014). This speech pattern may lead to a lesser degree of interpersonal marker use compared to textual ones. This discrepancy between the frequencies of the two types of markers is further compounded by the fact that textual markers are already used at higher frequencies compared to interpersonal markers simply due to the more formal academic setting (Zare & Keivanloo-Shahrestanaki, 2017). For example, Crible, Degand, and Gilquin (2017) reported that French teachers produced lower scores of PMs in formal and scripted speech compared to phone calls and conversations. To summarize, it seems that the educational context provides a high frequency of textual markers and a lower frequency of interpersonal markers. In addition, a lower variety and frequency of PMs seem to occur in this setting that might in less formal interactions and little to no formal instruction on PMs is provided.

4.5. **The role of pragmatic markers in comprehension**

Speakers use PMs to construct and manage coherence (Meierkord, 2007), which makes them key elements in comprehension. Despite not being instructed explicitly on the use of PMs in EMI classrooms, there is evidence that learners are paying attention to and rely on PMs for correct interpretation. For example, research has shown that signposting lectures has positive effects on

comprehension Östman (1995) found that the use of *well, ok, anyway, oh* and other PMs have significant positive effects on spoken discourse comprehension. This research has been complemented by other findings which demonstrate that listeners rely on PMs during academic lectures in order to interpret the stream of discourse. For example, Flowerdew and Tauroza (1995) played a video of the same lecture to two different groups of NNSs, one had been modified to remove all PMs and the other was left in its original form. The authors found that those who watched the lecture with PMs intact understood significantly more than those who watched the lecture with the PMs removed. These findings were replicated in Jung's (2003) study who found that those students who listened to lectures with PMs performed better on posttests than those who listened to the lecture without PMs. This finding was found to be true not only for oral comprehension but also for written comprehension. For example, Reza, Tavangar, and Tavakoli (2010) reported that learners were better able to understand texts which contained PMs than those without. These studies all provide evidence that learners attend to PMs during language processing, however, there are some alternative arguments, for example, Liu (2016) who suggested that due to the low degree of lexical meaning that PMs carry learners might simply skip over unknown PMs in the input without processing. In addition to this, there may be other non-linguistic factors that interact with lecture comprehension, for example, a lack of familiarity of lecture format and the overall structure the distribution of the information given in a lecture as suggested by Zare and Keivanloo-Shahrestanaki (2017). To summarize, most research demonstrates PMs play a key role in comprehension and that it is highly likely that learners carefully attend and process PMs in order to aid them in correct interpretation. Thus, providing an argument to believe that participation in EMI might have a positive effect on the usage of the types of PMs that occur in this context.

4.6. Factors affecting the acquisition of pragmatic markers

Turning to context first, Fung and Carter (2007) compared Hong Kong adolescents from a traditional formal instruction classroom setting to British NS of the same age and measured their usage of PMs in a role play. They found that the NSs used PMs for a wider variety of pragmatic functions that the NNSs did. It was furthermore noted that learners tended to produce larger quantities of textual markers and lower frequencies of interpersonal ones. In line with this study,

other studies report an over or underuse of PMs compared to NSs. For example, Liu (2016) studied two groups of Chinese L1 students living and studying in the US: a high, and a low socialized group, which were determined by the time spent socializing and interacting in natural settings in English. She found the more socialized group used PMs at a higher rate than the less socialized group, and more importantly, that their distribution was more native-like, this was attributed to their increased contact with NSs. She concluded that it is not the rate of PMs that contributes to fluency but a native-like distribution. Turning to studies carried out in the EMI context show mixed results. For example, Ament and Barón (2018) compared EMI and non-EMI learners and found that EMI students produced more PMs than non-EMI and that EMI students signposted more clearly through the use of more structural PMs while non-EMI used more referential PMs. In another study, Ament, Pérez-Vidal and Barón (2018) compared the effects of EMI over 2 academic years, they reported that both EMI and semi-EMI increased their frequency and variety of PM use, however, only the EMI group experienced an increase in the use of textual markers, and neither group experienced any difference with respect to interpersonal PMs. The authors suggest that the outcomes were due to the context of learning and that EMI context may be more favourable for the learning of textual compared to interpersonal markers. Other researchers report opposite findings, for example, a corpus study comparing Japanese and Turkish EFL learners to NSs Babanglu (2014) analyzed essays and found that the learners tended to use interpersonal PMs that are usually used in oral communication erroneously in their writings. Additionally, they noted that the NSs produced the fewest PMs in their essays. The author concluded that factors such as register confusion, L1 transfer, or lack of or over instruction in class may be the cause of the different patterns of use of PMs on behalf of the learners. Considering other studies accounting for L1 transfer results show that learners use markers infrequently to never when they do not have a corresponding marker in their L1, for example, Liu (2013) found that Chinese learners of English transferred meanings and frequencies of use of markers such as *yeah* and *I think*, which had equivalents in Chinese, but very infrequent use of markers such as *like, you know* and *I mean* which do not have an equivalent in Chinese. Buysse (2015) also found in his comparison of Dutch, French, Spanish and Chinese learners that according to their production of the marker *well* all learners performed similarly, producing more instances of *well* than NSs, with the exception of the Chinese participants who seemed to not have a corresponding marker in their L1.

Research has also documented the relationship between proficiency and PM use. For example, Wei (2011) measured PM use on the behalf of Chinese university students at different proficiency levels and found that advanced students were more active and involved in the discourse than intermediate students. She also noted that the higher proficiency learners showed a greater sensitivity to different types of simulated interactive context and concluded that proficiency level relates to the way PMs are used. Neary-Sundquist (2014) reported similar results, in that low-proficiency groups produced less PMs as well as a lesser variety than advanced groups. She also reported that as learners increase their overall use of PMs, the variety of functions they use them for widens as well.

A handful of studies have investigated the role of explicit instruction on the acquisition of PMs. Findings show that learners are better able to mark their discourse in written texts after receiving instruction on PM use compared to those that did not (Cheng & Steffensen, 1996). In line with this study, Li (2015) reported that by raising learners' pragmatic awareness and providing learners with explicit instruction on PM use learning was facilitated. In sum, research on the acquisition of PMs shows that learners use PMs at different frequencies, varieties, and distribution when compared to NSs. Although this variation is not always clear or predictable due to a number of factors such as the context of learning, L1, language proficiency and explicit instruction. Thus, further research is needed in order to determine more clearly the effects of context on PM learning. The aim of this study is to report on the different distribution of uses of PMs between NS and NNSs and to identify the effects of EMI on the acquisition and use of PMs. Thus, the research question proposed is the following:

3. Do second-year EMI learners, third-year EMI learners and NS use PMs differently according to the distribution of textual PM use?
   a. If there are any differences between the groups, which functions of textual markers are used differently?

4.7. **Methodology**

4.7.1. Design and participants

Participants were 51 students, 41 enrolled in an International Business and Economics degree at a university in Catalonia, and 10 native speakers of English enrolled in undergraduate and Masters Programs at the same university. 23 participants were second-year students (henceforth IM2), and 18 were third-year students (henceforth IM3).

Results from the language background questionnaire revealed that 86% of the participants were Spanish/Catalan bilinguals and these languages were also the languages of their previous education the other participants were from other European countries. No students reported studying through EMI before entering university. All participants reported English as a third language. The mean age of participants was twenty, 41% were male, and 59% were female (see Table 7).

The IM groups were enrolled in an International Business and Economics degree which is taught completely through the English language. The degree programme consists of 425 contact hours per academic year, and data collection was conducted halfway through the academic year the IM2 group had participated in 637 hours of EMI, and the IM3 had participated in 1,062 hours of EMI at data collection (see table Table 7).

Table 7. Participants, design, and hours of exposure to EMI

Experimental Groups	IM2	IM3	NS-group
Number (Age)	21(19)	17(20)	10(22)
Cumulative Hours of EMI	637	1062	n/a
First language	16 – Cat/Sp 5 – Other	17- Cat/Sp	10 - Eng
Year of study at the time of data collection	2nd year	3rd year	4th or 5th year

4.8.   **Results**

An exploration of the data was carried out first, each group's total words, total PMs per 100 words, and total types of PMs per 100 words were calculated. It was noted that the NS produced longer streams of talk with 762.80 words on average, followed by the IM3 group with 691.79 words on average and that the IM2 group produced the shortest streams of talk at 531.48 words on average. Due to this difference, the ratio of each functional category per 100 words was calculated. Results showed the IM3 group produced the largest amount of PMs per 100 words (9.34) compared to NS (8.52) and the IM2 group produced the least PMs per 100 words (8.23). Furthermore, the percentage of each different function in relation to all PMs uttered was calculated to provide data on the relative distribution of PMs per group. It was found that the NS group used continuer (30.65%), elaboration (22.95%) and causal markers (13.07%) at the highest frequencies. The IM3 group showed the exact same pattern, continuer (22.80%), elaboration (20.55%) and causal (14.16%). Whereas the IM2 group differed, the three most frequent functions they used were continuer (24.74%), causal (16.40%) and topic shift/digression markers (15.49%). Turning to the next most frequent functions, the NS group used topic shift/digression markers (10.6%), contrast markers (8.21%) and summary markers (6.70%). The IM3 group differed slightly from the NS group and showed a moderate use of contrast markers (11.57%), topic shift/digression markers (10.44), and opening and closing of discourse markers (8.72%). The IM2 group performed much differently showing a moderate use of elaboration markers (14.35%), contrast markers (12.89%), and opening and closing of discourse markers (6.76%). Finally, the least frequently used functions of the NS group were sequence markers (5.19%), and opening and closing of discourse markers (2.68%). The IM3 group showed a low frequency of use of summary markers (7.17%), and sequence markers (4.58%). While the IM2 group showed a similar pattern as the IM3 group and used (6.34%) summary markers and (3.02%) sequence markers (see Table 9 and Figure 7.).

Table 9. Distribution of PMs for each group

Group	IM2	IM3	NS
Category	*Mean*	*Mean*	*Mean*
	SD	*SD*	*SD*
Words	531.48	691.79	762.80
	178.16	161.34	264.00
Different Types of PMs per 100 words	3.48	3.11	2.33
	1.12	.97	.75
PMs per 100 words	8.23	9.34	8.52
	2.47	1.64	5.24
Cause Markers per 100 words	1.29	1.36	1.10
	.59	.44	.49
Continuation Markers per 100 words	2.15	2.08	2.69
	1.07	.58	2.06
Contrast Markers per 100 words	1.00	1.08	.68
	.61	.05	.48
Elaboration Markers per 100 words	1.13	1.94	1.83
	.93	1.16	1.51
Opening or Closing Discourse Markers per 100 words	.56	.84	.23
	.27	.46	.30
Topic Shift Markers per 100 words	1.30	.94	.94
	.08	.45	.87
Sequence Markers per 100 words	.25	1.43	.47
	.36	.38	.39
Summary Markers per 100 words	.54	.68	.57
	.37	.38	.34

could be accounted for by a number of factors, firstly, the functions of causal, contrast, and sequential markers are closely linked to syntax and accurate sentence structure. Thus, due to the nature of their functions, these markers might be easier to acquire, as was also suggested by both Liu (2016) and Bu (2013). Additionally, these markers are the most likely to be addressed in formal language teaching according to Hellermann and Vergun (2007) and Vellenga (2004). It is highly likely the participants of the present study have received some explicit instruction on these markers at some point in their English language learning history, which is reflected in their competent use of them. A third factor influencing the results might be the more transparent meanings these markers hold compared to some other functions of textual markers. For example, *because, but,* and, *and* have clear semantic meanings that correspond to their uses as contrast, causal and sequential markers. This feature might facilitate understanding and lead to greater ease of use compared to some of the other functions of textual markers. This finding is confirmed in other studies (Ament & Barón, 2018; Ament et al., 2018; Liu, 2016) who found that such markers were acquired first and easier than others. The final factor to consider is that the EMI input may be rich in these markers and therefore may provide learners with ample opportunity to acquire them as was suggested in studies by Romero-Trillo (2002), Buysse (2015) and Fung and Carter (2007). The groups were also found to perform equally according to topic shift/digression markers, these markers function differently than the causal, contrast and sequential markers, in that this function involves a certain degree of discourse management and metapragmatic thinking (Verschueren, 2000). Due to this factor, it could be that this result reflects the high level of proficiency achieved by EMI speakers, and shows the positive effect of the EMI setting on learners' PM output. Similar conclusions were made by Wei (2011) who found that highly proficient learners were able to incorporate more PMs into their speech and cater to the communication task by incorporating the use of topic shifting and topic/digression marker management.

Turning to the statistically significant differences found between the groups, the NS group produced more elaboration markers than both the IM2 and IM3 groups. This finding is in line with those from Liu (2013) and Fung and Carter (2007), who report a constant use of elaboration markers among their NS groups. Considering elaboration markers function to introduce examples, elaborate on ideas or reformulate what has already been said, a reason for this pattern of use could be that NSs tend carefully to the maintenance of complete and comprehensive discourse, through the provision of elaborations, examples, and reformulations (House, 1996). Maintaining,

managing and tending to these elements of discourse structure may be more cognitively straining and difficult for NNSs. This challenge may lead learners to steer clear of elaborations, reformulations, and exemplifications, and thus, lead to a tendency for them to express themselves in a more straightforward manner making use of connections, contrasts, continuers, causal and sequential markers. Such a pattern was also noted in Buysse (2015) who suggested that learners may feel more of a need to make their utterances clear than NSs do, as well as Wei (2011) who found learners communicate their ideas in a more of a monologic manner than NSs do.

The second significant difference discovered is that both the IM2 and IM3 groups produce more opening and closing of discourse markers than NSs. We might have been inclined to suspect the opposite, as the literature states that clearly marking speech is a sign of fluency (Shively, 2015). However, some researchers report the opposite and suggest that filling opening or closing positions with multiple PMs may actually be a sign of disfluency (Gilquin, 2008; Trenchs-Parera, 2009). Based on the present study's results, it seems that NSs mark the opening and closing and turn-taking less often than learner groups. One rationale for this finding may be that NSs do not explicitly mark their closing of turns because it is already made explicit by metalinguistic or non-linguistic factors not considered in this study. Such factors might not be evident to learners, and they may feel unsure as to whether the correct interpretation of their utterance is insured and might cause them to explicitly mark redundant functions. This was also noted by Müller (2005) who found that learners tended to show their lack of confidence in their linguistic skills, in the form of excessive discourse marking. Alternatively, it could be that learners use more PMs at the beginning or end of a turn because they are still cognitively processing and formulating their next communicative move as was noted by Fernández, Gates Tapia, and Lu (2014) whose learners used markers frequently as hesitations or thinking devices. A final suggestion is that NSs might not leave time for a speaker to complete their utterance and instead begin their turn either before or the instant the speaker stops speaking, thus, leaving little opportunity for the speaker to mark the closing of the turn.

4.10. **Conclusions**

The aim of the present study was to describe the distribution of use of eight different functions within the textual PM category and to determine if there were any significant differences between the use of PMs among NSs, second year, and third year EMI students. A number of interesting findings have come out of this study. Firstly, a positive effect of EMI on the distribution of PMs was found. Learners in their third year of EMI approximated NS distribution of continuer, elaboration, causal, and topic shift/digression PMs. This reflects the cognitive processing and attention to PMs during comprehension of EMI courses. It might also reflect an ease of acquisition of these PMs in this academic context. This finding was further evidenced when interpreting the statistical results; it was secondly found that markers such as causal, sequential, topic shifting/digression and contrast markers seem to be acquired easily in the EMI context, as the learner groups did not differ from the NSs when it came to these functions of textual markers. This is thought to reflect their previous English language learning experiences, the high salience of these markers in the EMI context, and the semantic transparency and syntactic simplicity of these markers. The third contribution of this study is that NSs were found to maintain and manage discourse more thoroughly through the incorporation of elaboration, reformulation and exemplification markers into their discourse compared to the NNSs who were found to express themselves in a more straightforward way incorporating continuer, sequencing, contrast and causal markers. Finally, in accordance with other research, a certain degree of disfluency was noted in the NNSs groups specifically due to the overproduction of opening and closing discourse markers. Thus, suggesting that EMI can be effective for the acquisition of some textual PMs while other PMs may require either more time and practice, a different context, or perhaps explicit instruction to be acquired.

A limitation of this study could be that the EMI groups were compared cross-sectionally, while it would have been optimal to test the same individuals in both their second and third year of study. Although the study still makes an important contribution, it seems that EMI has positive effects on the use of many textual PMs. Furthermore, it appears that the longer the learner spends in EMI the closer their pattern of use of textual PMs approximates that of NSs. EMI seems to benefit the use of, causal, contrast, sequential and topic shift/digression markers whereas some markers may take longer to acquire such as elaboration markers or the appropriate pattern of use

of opening and closing discourse markers. Participation in a variety of contexts and explicit instruction might aid a more balanced acquisition of textual PMs

5. Individual Differences and Pragmatic Learning in English-Medium Instruction Contexts

5.1. Introduction

The present study investigates three main affective variables: i) motivational orientation, ii) attitudes towards English, and iii) second language emotion (anxiety and enjoyment) and their relationship to the production of PMs amongst full- and semi-EMI undergraduate students in Catalonia. Motivation in SLA has been operationalized as a psychological quality that leads one to achieve the goal of mastering a language (Eagly & Chaiken, 1993). Attitudes refer to subjective evaluations made by either individuals or groups, of speakers and the language varieties they use (Myers-Scotton, 2006). Emotions are broken down into foreign language anxiety and enjoyment. Anxiety is operationalized as "the worry and usually negative emotional reaction aroused when learning or using an L2" (MacIntyre, 2007, p.565) whereas, enjoyment is the positive emotional arousal from interacting through an additional language (Dewaele, 2015). These factors have been identified as potential predictors of overall achievement and proficiency in second language learners (Gardner, 2007). Despite the large body of research on IDs in SLA, there are relatively few studies investigating them in the context of EMI (Lasagabaster, 2016), and even less were found comparing semi- to full-EMI learners. EMI can be described as process when English is used as the medium of instruction, in otherwise non-English speaking environments usually involving non-native speakers of English (Hellekjær & Hellekjær, 2015) a phenomenon which has been on the rise across Europe and the world over the last decade (Pérez-Vidal, 2014b; Wachter & Maiworm, 2014). In addition to IDs, and the context of learning, the present study also considers the use of PMs in oral communication. Due to the important role PMs play in first and second language communication, as reflected by their constant use during interaction by NSs and NNS. In fact, they are thought to reflect the speaker's oral fluency (Barón & Celaya, 2010; Hasselgreen, 2004; Trenchs-Parera, 2009), and overall communicative competence (Alcón & Safont Jordà,

2008; Bachman, 1990; Halliday & Hasan, 1976). Thus, the aim of the present study is to shed light on how different intensities of EMI learners feel in and towards their classes by reporting on their motivations, attitudes and possible anxieties and furthermore, how these factors might interact with language learning and use, specifically, the incorporation of PMs into speech.

5.2. **Individual differences and SLA**

5.2.1. The L2 self motivational system, ideal or ought to self orientation

Recently, two important shifts have occurred in the field of IDs and SLA: firstly, in order to incorporate current ideologies, social changes, and the latest findings in the field SLA researchers have re-conceptualized the learner motivation construct originally proposed by Gardner and associates (see Gardner, 2001; Masgoret & Gardner, 2003). Factors such as internationalization, increasingly multilingual societies, and English as a dominant language in business, science, and academia (Block, 2003; LoCastro, 2001) have put English into a position where it is no longer connected with a specific culture or people (Crystal, 2003), but has become a lingua franca, making it impossible for learners to integrate with an L1 culture (Coetzee-Van Rooy, 2006). The second important shift is that SLA researchers have begun to recognize the learner as a whole person and to understand effective factors as dynamic and constantly changing variables rather than as static and separate from the rest of the learner's character (Ushioda, 2009; Yashima & Arano, 2015). Out of these shifting perspectives the L2, motivational self-system model was proposed by Csizér and Dörnyei (2005) and Dörnyei (2009). The L2 motivational self-system is comprised of three components: (i) the ideal L2 self, which mainly encompasses integrative/intrinsic motivational factors, (ii) the ought to L2 self, which mainly encompasses instrumental/extrinsic motivational factors, and (iii) the L2 learner experience, which mainly includes affective factors related to the learning environment such as attitudes and emotions towards peers and professors. According to this model, L2 motivational orientation is formed by either mainly internal or external forces. The ideal L2 self is created and maintained by internal factors, such as the positive disposition and willingness to put effort into learning, as well and a series of promotional or behavioural measures such as learning patterns which enable achievement of the desired outcome or goal. The ought to L2 self motivational orientation, on the other hand, is driven and formed by external factors, for

example, family influences, and preventative behaviours and measures such as learning patterns which aim to avoid a negative outcome. Ought to L2 self-motivated individuals tend to feel the pressures of their society, community or culture and seek to match these perceived expectations. In either case, these internal or external factors influence the learners' actions, behaviours, and decisions and therefore their language learning outcomes in the long run.

5.2.2. The L2 learning experience

The L2 learning experience includes such factors as the individual's attitudes and emotions (e.g. anxiety and enjoyment) experienced while learning a language. These factors are dynamic and change over time. It has been proposed that these factors shape ones' motivational orientation over time (Deci & Ryan, 1985; Ryan & Dörnyei, 2013). Something that has been confirmed by empirical research is that learner attitudes towards a language can affect language learning outcomes by influencing the decisions the learner makes, as found by Gao (2008). . Similarly, (Ryan & Dörnyei, 2013) suggest that attitudes and motivations are changeable. Others confirm a relationship between attitudes and their impact on behaviours. For example, González Ardeo (2016) reported that the L2 learning experience had a significant effect on learners' choices regarding language learning strategies, activities and behaviours. Additionally, L2 learning experience had been shown to have an effect on learner's emotions which in turn, impacts behaviours, decisions, and language learning outcomes (Afungmeyu Abongdia, 2014). Another manner in which motivation and attitudes affect SLA is via the self-discrepancy model (Deci & Ryan, 1985; Higgins, 1987).In this model, learners become aware of the differences between their actual behaviour and performance in comparison to their expected or desired behaviour and performance. The realization of the difference between the actual and desired is what stimulates the learner to put effort into changing their current situation, in order to approximate either the ideal or ought to self-image by engaging in activities believed to stimulate language learning. In summary, the L2 self model proposes three primary sources of motivation, the internal factors, (i.e. the ideal L2 self), external factors (i.e. the ought to L2 self), and the learners' L2 experience. The L2 experience is particularly important because it comprises the dynamic factors of attitudes and emotions which are what have been shown to shape learner motivations, which in turn dictate learner behaviours and learning outcomes.

5.2.3. Anxiety and enjoyment

In the present study, L2 learning experience was operationalized as containing the IDs of attitudes, foreign language anxiety, and foreign language enjoyment. Anxiety was analyzed as it was experienced while participating in the EMI classroom It has been stated that the experience of anxiety in the language learning context can trigger a variety of negative effects that, in turn, severely inhibit progression in language acquisition (Gardner, Day & MacIntyre, 1992). For example, learners who experience foreign language anxiety tend to avoid situations where they would be required to speak the foreign language, this combined with a fear of negative evaluation, inhibits them from enrolling in courses mediated through a foreign language. This aversion to the language could have lasting negative effects, especially when the language under consideration is English. In fact, this is why some researchers have emphasized the importance of implementing strategies to reduce language anxiety in EMI classrooms (Hengsadeekul, Koul & Kaewkuekool, 2014) or increasing risk-taking. For example, Pyun, Kim, Cho, and Lee (2014) advocate the importance of encouraging risk-taking in the L2 classroom and how it was positively related to language achievement and linguistic self-confidence. However, some studies report that a certain degree of anxiety can actually encourage learners to work harder and function as a sort of fuel that pushes learners to achieve their language learning goals. This seems to be especially true of learners who are more oriented towards the ought to L2 self rather than ideal L2 self (Gao, 2008). For example, Teimouri (2017) and Li (2014) reported that ought to learners were more driven and better able to focus their anxiety for positive outcomes compared to ideal L2 self learners, who tended to be more driven by enjoyment.

5.2.4. Motivation and attitudes in EMI review of the literature

Regarding motivations and attitudes, EMI learners may be different from their non-EMI peers in a number of ways. One such way is that EMI learners seem to have more positive and constructive attitudes towards languages and learning (Rivero-Menédez, Urquía-Grande, López-Sánchez, & Camacho-Miñano, 2017). Additionally, it seems that when highly instrumentally (ought to self) motivated students choose to study via EMI it is because they anticipate an eventual payoff or reward in the future while, highly integratively (ideal L2 self) motivated students enroll in EMI because they perceive themselves as academically competent and tend to be more persistent and

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confident (Li, 2014). It has also been reported that many learners in Europe consider English to be a natural incorporation in higher education and a necessary tool for career advancement, these attitudes and beliefs seem to foster the development of hybrid identities and positive attitudes towards incorporating English into their lives, and thus, the creation of both a local and a global identity (Henry & Goddard, 2015).

While a large body of research exists on motivations and SLA relatively few studies have investigated motivations and attitudes in the EMI context with a few exceptions. For example, Gao (2008) followed L1 Chinese EMI students in Hong Kong during their first two years of university. Learner's motivations towards English language learning were reported to change over time. Specifically, learners started off more instrumentally (ought to self) oriented, and slowly became more integratively (ideal L2 self) motivated as they spent more time in the EMI environment. The author suggested that both the learners' prior learning experiences and societal pressures were factors that impacted on their initial motivational orientations and that their orientations changed for three main reasons: i) a rapid increase of personal experiences using English for authentic communication, ii) personally meaningful need and interest in speaking English, and iii) opportunities in which the learner could begin to identify with the language. In effect, the learners began to integrate their new experiences and began to construct their ideal L2 self, thus, transforming their motivational orientation. In a similar study, Wang and Liu (2017) followed five Chinese learners' studying German over two university years. They reported that learners' ideal L2 selves strengthened while the students were taking the course but then weakened again with time. The ought to L2 self orientation, on the other hand, seemed to gradually weaken over time. These changes were thought to relate to the emotions the learner experiences in the context of learning, the opportunities learners have to use the language outside of class, and the learners' attitudes towards the language. In line with these studies, Chen and Kraklow (2015) compared EMI and non-EMI students in 8 different undergraduate programs in Taiwan. Participant's motivations towards English and engagement with the language in internationalization at home[6]

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[6] 'Internationalization at home' is a process whereby the learners' who study at their home institutions can reap the benefits of international exposure via interaction with international students studying at their local university (Llurda, Cots & Armengol 2013; Thøgersen 2013).

context were measured. EMI learners were found to have higher levels of intrinsic motivation and engagement with English.

Turning to the Spanish context, Rivero-Menédez et al., (2017) compared EMI and non-EMI Business Administration students in Madrid. They reported that EMI learners were more self-confident and motivated in their EMI courses. The authors also noted that EMI learners were willing to dedicate more time to their courses and had better learning strategies than non-EMI learners. In a different study, Lasagabaster (2016) analyzed EMI motivations among undergraduates in the Basque country. He found that in EMI contexts motivation was created by the strengthening of learners' ideal L2 selves through their L2 learning experiences, attitudes, and emotions. And that in addition, they were strongly influenced by family and other societal pressures. To summarize, studies show that learners tend to begin their university careers with strongly developed ought to L2 self orientations and that over time motivation orientation shifts and stronger ideal L2 self is developed. This is thought to be cultivated through positive, authentic and personally meaningful L2 experiences. Although there is also research that highlights the strong influences family and prevention have on learner motivational orientation.

5.2.5. Individual differences and pragmatic learning

The importance of correct PM usage is a key element in language fluency (House, 2013). They carry out essential and complex functions in conversation, so much so, that they are considered to be one of the key elements in communicative competence (Shively, 2015). Without a strong grasp on the accurate use of these markers, learners may become lost by failing to properly interpret discourse cues. They are equally likely to be misunderstood for the same reasons, for example, by not adequately signposting, or not marking the relationship of distinct parts of discourse or by not marking how their discourse relates to the context. Under a functional pragmatic approach, PMs may belong to one of two categories depending on their function: interpersonal or textual (Andersen, 2001). Interpersonal PMs are thought to express social functions and show the speaker's relationship towards what is being communicated. They also mark their own and their interlocutor's relationship to an utterance (Andersen, 2001). In addition to this, interpersonal PMs maintain and encourage interaction, manage and create interpersonal relationships, and as such, are closely related to and reflect one's identity (Pavlenko & Blackledge, 2004). In contrast, textual

markers are used to express relationships between units of discourse and involve how the speaker perceives the structural relationship between utterances. These markers are more closely related to organizational competence, logically structuring and marking arguments, and explaining processes clearly; these markers are closely related to grammatical accuracy (Bachman & Palmer, 1996) and are what is typically taught in L2 classrooms.

Studies on PM have found that learners tend to use PMs for a much narrower scope and at a lesser frequency than native speakers do. For example, Bu (2013) found that while learners used the same PMs as native speakers, they did not use them for the same functions as the native speakers did, resulting in both a restricted range and an unnatural use of PMs. It has also been found that exposure makes a difference, for example, Liu (2016) compared a high and low exposure group and found the high exposure group used PMs at a higher rate than the low exposure group. Similarly, Fung and Carter (2007) investigated types of PMs used, and found that learners in instructed L2 contexts used textual markers at high frequencies and interpersonal markers more sparingly and that NSs used PMs for a much wider variety of functions than the learners did. Similar results were found by (Ament & Barón, 2018) who compared EMI and non-EMI learners and found that EMI students produced more PMs than non-EMI and that EMI students signposted more clearly through the use of more structural PMs while non-EMI used more referential PMs. In another study by (Ament et al., 2018) it was found that both EMI and semi-EMI increased the frequency and variety of PM use over a two year period, however, only the EMI group experienced an increase in the use of textual markers. The authors suggest that the outcomes were due to the context of learning. To summarize, it seems that learners are slow to acquire PMs and that they tend to use them at different frequencies and varieties when compared to native speakers. When considering types of PMs used, it seems that textual PMs are acquired more easily and rapidly than interpersonal markers especially through instructed and EMI learning contexts.

The present study seeks to shed light on the relationship between the IDs discussed here and their relationship with pragmatic learning. Of particular notice, no studies have been found comparing semi-EMI to full-EMI, which is a contribution this paper would like to make as it is a worthy area of investigation to know the effect of intensity of immersion on IDs as well as pragmatics in the EMI setting. Furthermore, no studies were found investigating how motivation

affects the learning of this pragmatic feature thus; the present study aims to contribute to this research area specifically by answering the following research questions.

4. Are there differences *between* full-EMI and semi-EMI groups according to the IDs, ideal L2 self, ought to self, attitudes, anxiety, and enjoyment? When compared all together, in the second year, and in the third year of studies.

5. Are there differences *within* the full-EMI and semi-EMI groups according to the IDs, ideal L2 self, ought to self, attitudes, anxiety, and enjoyment? When comparing second to third-year students.

6. Are there any relationships between learner's IDs, ideal L2 self, ought to self, attitudes, anxiety and enjoyment and pragmatic marker use?

5.3. **Methodology**

5.3.1. Design and Participants

Participants were 96 students enrolled in an undergraduate degree at a university in Catalonia. A cross-sectional design was adopted, in that four different groups were studied and compared: IM2 (full-EMI second-year students), IM3, (full-EMI third-year students), SIM2 (semi-EMI second-year students), and SIM3 (semi-EMI third-year students). Participants in the full-EMI groups were enrolled in an International Business degree in which is all courses are English-medium. Participants in the semi-EMI groups were enrolled in either an Economics or Business Administration degree in the same faculty but had only two English-medium courses per year. Each degree program consists of 420 contact hours per academic year, thus the exposure to EMI for the full-EMI group is 420 hours per year, while the semi-EMI group had an exposure of 35 hours per year. Results from the language background questionnaire revealed that 88% of the participants were Spanish/Catalan bilinguals and these languages were also the languages of their

previous education. While 12% were from other language backgrounds (Basque, Slovenian, Chinese, Serbian and Ukrainian). All participants reported English as a third language. The mean age of participants was 19.5, 41% were male, and 59% were female (see Table 11).

Table 11. Participants, design, and hours of exposure to EMI

Groups	IM2	IM3	SIM2	SIM3
Number	21	25	24	26
Age	19	20	19	20
Cumulative Hours of EMI	840	1260	35	70

5.3.2. Instruments

Six instruments were used for data collection, four questionnaires: a language background questionnaire, a language proficiency test, a motivational questionnaire, a foreign language anxiety/enjoyment questionnaire, and two oral tasks: a monologue and an interaction task. All instruments were piloted previous to the study and were found to be effective and adequate at eliciting the desired type of language (Ament & Barón, 2018).

In order to control for language proficiency, a language background questionnaire was administered, which established participants' previous exposure to English as well as their English language learning backgrounds. The online Cambridge placement test was administered to control for proficiency all participants were found to score between a B2 and C1 level.

The motivational questionnaire measured the three motivational orientations originally identified by Dörnyei (2009) i.e. ideal L2 self, ought to L2 self and L2 experience (henceforth attitudes in this study). The questionnaire was based mainly upon well-established questionnaires previously used by other researchers (Lasagabaster, 2016; Taguchi, Magid, & Papi 2009; Teimouri, 2017) with a slight adaptation to fit the EMI context. There were 36 items, 12 questions targeting each variable. Participants responded according to a 5 point Likert scale and were given a total score for each type of motivational orientation.

A foreign language classroom anxiety and enjoyment questionnaire based on the one used by Dewaele and MacIntyre (2014) and originally created by Horwitz, Horwitz, and Cope (1986). The

questions were adapted to fit the EMI context. The questionnaire contained 26 items. Participants responded according to a 5 point Likert scale and were given a total score for anxiety and enjoyment.

The MON task was completed individually, participants were asked to introduce themselves to the researcher and include information regarding the languages they speak, their English language learning experience, which degree they were taking and why they had chosen to take it in English. This task was chosen as it has been found that when learners are required to maintain longer stretches of speech it can stimulate the need for increased discourse marking (Cribb, 2012; González, 2005). The INT task required participants to engage in conversation with another participant. Participants were asked three different questions that were related to their field of study. This method of data collection was chosen because this type of procedure can elicit, interpersonal functions, coordinated speaker-listener functions, turn-taking, and back-channelling, and, because it has been argued that elicited conversation can tap into learners interactional competence, which involves the management of PMs (Kasper & Rose, 2002).

5.3.3. Procedure

Participants completed the questionnaires and the proficiency test online prior to the oral data collection. Oral tests were carried out in sound attenuated cabins. The MON task was carried out first; two minutes were given to record the participants' responses. This was followed by the INT task in which participants were organized into pairs, and recorded. Participants were asked to discuss each question for two minutes.

5.3.4. Analysis

The motivational and anxiety questionnaires were analyzed by totalling the score of each participant, taking into account that reverse worded questions were corrected before tallying the scores. Audio recordings were transcribed and checked twice to ensure accuracy. The researchers also controlled the coding vigorously, one researcher performed two checks on all coded data, and another researcher re-coded the 25%. Any discrepancies were discussed and an agreement was made on how to code them. Following previous researchers (Ament et al., 2018; Andersen, 2001; Fischer, 2014) the researchers identified and tagged each PM used in the oral tasks according to

the specific function the marker was carrying out in the given context. This was done by examining the context before and after the item. Table 12 includes examples from the data which were coded as interpersonal PMs and Table 13 includes examples from the data which were coded as Textual PMs.

Table 12. Interpersonal PMs: Functions and examples of items from the data

Functions of Interpersonal Markers	Items found in the data
To signal receipt of information	*Okay, right, yeah*
To show support to the interlocutor	*Okay, great, I know, exactly, sure*
oneself with the speaker	*Exactly, I agree, totally, yeah,*
To signal joint construction of knowledge	*I agree, totally, that's right, yes, exactly, and, in addition*
To stimulate interaction	*Right? Yeah? Really? Great!*
To hesitate or show repair	*I mean, well, sort of, kind of, I think*
To denote thinking processes	*Well, I think,*
To assess the interlocutor's knowledge	*Right? You know what I mean?*
To act as a hedging device	*I think I'm not sure, kind of, sort of, you know?*
To indicate attitudes	*I think, definitely, basically, absolutely, exactly*

Table 13. Textual PMs: Functions and examples of items from the data

Functions of Textual Markers	Items found in the data
To show causal relationships	*Because, so, and*
To indicate results/summary	*So, like, well, and, yeah*
To indicate conclusions	*Finally, then*
To mark contrast	*But, however, and, although*
To mark disjunction or digression	*Or, anyway, or something, or so, whatever,*
To signal opening or closing of discourse	*Okay, right, alright, so, let's start, to conclude/ in conclusion, yeah, that's it, that's all*
To signal shifts or transition of discourse	*So, well, and then, and what about, and how about, and yeah, but*
To show temporal sequence	*First, firstly, secondly, next, then, finally, now, first of all*
To show the continuation of the discourse	*And, yeah, because, so*
To elaborate or reformulate	*I mean, like, and, it's like, that is, for example*

Cronbach's alpha reliability coefficient was calculated for each of the variables on the questionnaires the values are, ideal L2 self .332, ought to self .749, attitudes towards English .535, anxiety .908 and enjoyment .641. All Cronbach's alpha scores were within the acceptable to the excellent range with the exception of the ideal L2 self measurement, thus, the results regarding this variable are drawn bearing this in mind. To detect significant differences between and within the groups, independent samples t-tests were carried out using SPSS. Pearson correlations were conducted to detect any relationships between PM use and the ID variables measured. In preparing the data for analysis the assumptions for normality and homogeneity were tested and met.

5.4. **Results**

5.4.1. Full-EMI and semi-EMI compared: between-group differences in motivation, anxiety, and enjoyment.

Research question 1 inquired whether there were differences *between* full-EMI and semi-EMI groups according to the IDs, ideal L2 self, ought to self, attitudes, anxiety and enjoyment and

sought to identify differences between IM and SIM learners. To answer this question three different tests were carried out; firstly, a comparison of all IM participants to all SIM participants was performed. Results showed no significant differences between the IM and SIM groups (t (94) = 1.51, *p* = .134) on the ideal L2 self scale, on the ought to L2 self scale (t (94) = .242, *p* = .809), nor between the groups according to their attitudes towards the L2 community (t (94) = .070, *p* = .945), anxiety (t (94) = .658, *p* =.512) or enjoyment (t (94) = .228, *p* =.820). Descriptive statistics for each group are reported in Table 4 and the results from the t-test comparing IM to SIM are reported in Table 15.

Table 14. Descriptive statistics according to group and motivational scales

Motivational scales	*IM2*		*IM3*		*SIM2*		*SIM3*	
	Mean	*SD*	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*
Ideal L2 self	16.43	3.19	16.60	3.49	18.54	5.52	17.19	4.71
Ought to self	21.95	6.45	28.04	11.32	22.13	9.23	27.27	7.81
L2 Attitudes	17.14	3.92	18.40	4.02	17.04	5.37	18.42	5.05
L2 Anxiety	13.00	5.48	13.84	5.31	13.79	4.83	14.46	4.90
L2Enjoyment	21.14	4.00	21.40	5.05	20.63	3.91	22.27	3.87

Table 15. Between IM and SIM Groups Differences

variable	*degrees of freedom*	*t-test score*	*p-value*
Ideal L2 self	94	1.51	.134
Ought to self	94	.242	.809
L2 Attitudes	94	.070	.945
L2 Anxiety	94	.658	.512
L2Enjoyment	94	.228	.820

Secondly, a t-test was performed comparing the SIM2 and IM2 groups (see Table 16). No significant differences were detected on any of the scales measured. Scores from the t -tests were as follows: for ideal L2 self (t (43) = 1.543, *p* = .130), for ought to self (t (43) = .072, *p* = .943) for total attitudes (t (43) = .071, *p* = .943) for anxiety (t (43) = .515, *p* = .609), and finally enjoyment scores were (t (43) = .439, *p* =.663).

Table 16. Between IM2 and SIM2 Groups Differences

variable	degrees of freedom	t-test score	p-value
Ideal L2 self	43	1.543	.130
Ought to self	43	.072	.943
L2 Attitudes	43	.071	.943
L2 Anxiety	43	.515	.609
L2Enjoyment	43	.439	.663

Thirdly, a t-test was performed comparing the SIM3 and IM3 groups (see Table 17). Results showed no significant differences. Scores from the t-tests were as follows: for ideal L2 self (t (49) = .509, p = .613), for ought to self (t (49) = .284, p = .778), for attitudes, (t (49) = .018, p = .986) for the anxiety measure (t (49) = .435, p = .666), and finally, for the enjoyment scale (t (49) = .691, p = .493).

Table 17. Between IM3 and SIM3 Groups Differences

variable	degrees of freedom	t-test score	p-value
Ideal L2 self	49	.509	.613
Ought to self	49	.284	.778
L2 Attitudes	49	.018	.986
L2 Anxiety	49	.435	.666
L2Enjoyment	49	.691	.493

5.4.2. Second and third year EMI compared: within-group differences in motivation, anxiety, and enjoyment

Research question 2 aimed at examining the differences *within* the full- EMI and semi-EMI groups according to the IDs, ideal L2 self, ought to self, attitudes, anxiety, and enjoyment. To answer this question two tests were performed. Firstly, a t-test was carried out on the data from the IM2 and IM3 groups (see Table 18). Results show a significant difference according to the ought to L2 self orientation (t (44) = 2.283, p = .028) the latter being higher at T2 for both groups as shown in Table 4. However, the other variables measured were found to be insignificant. The t-test scores were as

follows: for ideal L2 self (t (44).173, *p* =.864), for attitudes (t (44) = 1.069, *p* = .291), for anxiety (t (44) = .527, *p* = .601) and for enjoyment (t (44) = .189, *p* = .851).

Table 18. Within IM2 and IM3 Groups Differences

variable	*degrees of freedom*	*t-test score*	*p-value*
Ideal L2 self	44	.173	.864
Ought to self	44	2.283	.028
L2 Attitudes	44	1.069	.291
L2 Anxiety	44	.527	.601
L2Enjoyment	44	.189	.851

Secondly, a t-test was performed on the data from the SIM2 and SIM3 group (see Table 19). Results reveal the same pattern as the IM groups, specifically, a significant difference between the groups according to ought to L2 self orientation (t (48) = 2.135, *p* = .038). No other significant differences were detected between SIM2 and SIM3. The t - scores for the other variables measured were as follows: for the ideal L2 self (t (48) = .933, *p* =.355), for attitudes (t (48) = .938, *p* = .353), for anxiety (t (48) = .489, *p* = .629) and for enjoyment (t (48) = 1.495, *p* = .141).

Table 19. Within SIM2 and SIM3 Groups Differences

variable	*degrees of freedom*	*t-test score*	*p-value*
L2 self	48	.933	.355
Ought to self	48	2.135	.038
Attitudes	48	.938	.353
Anxiety	48	.489	.629
Enjoyment	48	1.495	.141

5.4.3. An exploration of the relationship between IDs and PMs in EMI learners

Research question three aimed to identify whether there were any relationships between the learner's IDs and PM use. Thus, Pearson correlations were carried out on the data analyzing the relationship between the amount of PMs used and the scores from the IDs questionnaires. Three trends emerged from the data. The first trend showed that the ought to L2 self learner orientation

positively correlated with the total PMs used $r(48) = .313$ $p = .002$, total interpersonal PMs used $r(48) = .230$, $p = .023$, and total textual PMs used $r(48) = .214$, $p = .034$. The second trend was that the level of enjoyment positively correlated with an increased use of interpersonal PMs $r(48) = .206$, $p = .043$, and the third trend was that a positive relationship was found between the ideal L2 self orientation and attitudes $r(48) = .428$, $p = .00$.

5.5.   **Discussion**

The present study did not detect any motivational differences between the full-EMI and semi-EMI participant groups. This finding suggests that those students who opt for even a few hours of EMI courses are quite positive towards English just as the full-EMI learners are. It additionally suggests that participation in only a few classes of EMI can have the same positive benefits on attitudes and motivation towards English as participation in a full-EMI course does. These groups might be similar for a number of reasons, to begin with, as discovered by the background questionnaire, both groups come from similar demographics and have similar learning histories and exposure to English. They are also from the same cultural context and may experience similar external pressures and be subject to the same types of societal expectations. These factors might lead to similar motivational profiles when entering university. This finding also highlights the changing attitudes towards English in Spain and Europe at large as González Ardeo's (2016) and Henry and Goddard (2015) reported i.e. young Europeans today consider English a natural incorporation in higher education, and, there is a measurable increase in positive attitudes towards English amongst Spanish undergraduate students. Thus, these factors may account for the lack of difference between the groups. However, the results found in this study contrast to Rivero-Menédez et al.'s (2017) who found that EMI learners were more motivated, worked harder and were more persistent and better time managers than non-EMI learners. As well as with some studies carried out in Asia, for example, Chen and Kraklow's (2015) who found that EMI learners were more intrinsically motivated compared to non-EMI learners and that they scored higher on criterion measures than the non-EMI group. This difference might be due to the fact that the present study compared full-EMI to semi-EMI whereas Rivero-Menédez et al. (2017) and Chen and Kraklow (2015) compared EMI to non-EMI. This contrast highlights one of the important discoveries of this study that full- and semi-EMI are equally motivated. Although another possible rationale for the contrasting

results could be the social context, perhaps the cultures, societies, personalities, and roles of English from China to Europe are very distinct and therefore the motivational trajectories are also distinct. Although, this reasoning does not account for the difference between our results and those from the Spanish context which suggests this area is highly context sensitive and an area that deserves further investigation.

Regarding within-group differences, the main finding showed that both EMI and semi-EMI behaved similarly from year two to year three of studies, irrespective of the EMI program they followed. Specifically, the third year students identified significantly more with the ought to L2 self orientation than those in their second year of studies. A possible interpretation of this finding could be that at year three of their studies, as a result of their encounters with English via EMI learners collect more international experiences through an internationalization at home setting and may begin to experience first-hand the external pressures to have a high proficiency in English (Leask, 2015). It may be that these external pressures become a stronger reality in the third year of studies, which could be when they begin to look to future job prospects. These findings and interpretation parallel Lasagabaster's (2016) study, in which it was reported that family influence and instrumental factors drove the motivation orientation of his participants. Furthermore, the shift in motivations from year 2 to year 3 of studies may be due, in part, to English's status in academia and current European society that drives both groups, to experience and internalize the external pressures to learn English, equally and increasingly over their degree program. This shift in motivational orientation was also reported in Gao's (2008) study, in which it was noted that learner motivations were dynamic and constantly changing. Although differently to Gao's participants, who became increasingly ideal L2 self oriented, the learners in the present study became more ought to L2 self oriented. We suggest this might be due to the differences between the Asian and European learning and social contexts. To summarize, it seems that whether learners opt to study via EMI or not they are keenly aware of the benefits, expectations, and future uses of English and its relationship to their careers. Thus, the experience of EMI may be a process whereby the needs and expectations of society come to the forefront and shift prominently into the reality of the learners' lives in a way they were not when they were attending high school or in previous education. As Lasagabaster states: "social factors are playing a paramount role in the widespread belief that English is an indispensable component of Spanish university students' cultural capital" (2016, p.327).

Finally, three main findings were uncovered regarding the relationship between IDs and PM use. Firstly, it was discovered that ought to L2 self oriented learners tended to produce more PMs both textual and interpersonal, which was not found in relation to the other IDs. Consequently, more PMs were produced by third-year learners than second-year learners. This may be because the more ought to L2 self oriented participants were increasingly motivated to communicate effectively through English, and that may have caused them to notice the difference between their language production compared to target like production, modeled through the lectures they receive, the readings they read, or the interactions they have with other English speakers in the EMI context. This awareness might be detected via the self-discrepancy model, when learners become aware of the differences between their actual behaviour and performance in comparison with their expected or desired behaviour and performance (Deci & Ryan, 1985), and thus, they may try to approximate target like language patterns (either implicitly or explicitly) including an increased incorporation of PMs into their speech. The second discovery was that those learners who scored high on L2 enjoyment also tended to produce higher frequencies of interpersonal PMs. This might be a reflection of their confidence and level of comfort when communicating through English. Increased confidence may lead them to engage with the language and their interlocutors more freely, additionally, they may be more comfortable when risk-taking and this may involve the confidence in themselves to properly incorporate new PMs and functions of those PMs into their speech. This interpretation is in line with Pyun et al.'s (2014) report that risk-taking was positively correlated with oral language achievement, as well as to Rivero-Menédez et al. (2017) who found that confident learners performed better than those that were less self-confident. The third discovery was that a relationship was detected between ideal L2 self learners and positive attitudes towards English. In fact, those who had positive attitudes towards English also tended to be able to easily imagine themselves becoming members of the English speaking community. This finding is in line with other researcher's findings such as Lasagabaster (2016) Gao (2008), and González Ardeo (2016) who have suggested that it is through one's attitudes that one's motivational orientation can be changed.

5.6. **Conclusion**

The aim of this study was to contribute to what is known regarding IDs among EMI students, as well as to identify incidental pragmatic learning and whether there were any relationships between PM use and IDs. Main findings show that full-EMI and semi-EMI do not differ much according to the IDs measured. However, within-group differences were found, both groups were significantly more ought to self motivationally oriented in the third year compared to the second year of studies. Regarding the relationship between PMs and IDs, the ought to L2 self orientated learners produced more PMs of both types. Another correlation was confirmed between enjoyment and PM production. A limitation of the present study is worth mentioning, namely, that the data was cross-sectional the participants from year two to year three were different individuals. This may affect the results and it would be well worth repeating this study using longitudinal data. However, despite the limitations, the present study has made a valuable contribution to the study of IDs in the EMI context. Specifically, that that L2 self motivation orientation is, in fact, dynamic and constantly changing and that societal pressures are important influences on young university students, something that becomes more prominent from year two to year three of university studies. Furthermore, this study suggests that full-EMI and semi-EMI do not differ according to motivational orientation, attitudes, anxiety, and enjoyment measures. Regarding the relationship between IDs and the use of PMs, the study uncovered that through self-confidence and a positive L2 learning environment learners might be more apt to approach the target like the use of PMs. And finally, positive attitudes towards English and the L2 learning experience were shown to encourage stronger ideal L2 self motivational orientation.

The implications of this study are that full-EMI programs may not be more beneficial than semi-EMI in either motivating students or linguistic outcomes. This can allow for more room for L1 education or other language education in the curriculum. It is also clear that societal pressures are high especially as learners' progress through their degree program and approach graduation. Thus, it seems important to encourage and create positive learning experiences for EMI students; this could aid learners in creating more positive ideal-L2 selves, as well as increased confidence and enjoyment, which would also have a positive impact on pragmatic learning and perhaps a greater impact on long-term language learning outcomes.

6. General discussions and conclusions

This dissertation set out to investigate the effects of participation in two different EMI degree programs (semi- and full-EMI) on the use of PMs in oral communication. In addition to this, the interaction of a variety of IDs on the PMs used in the two EMI settings was also measured. This was achieved by undertaking three studies that have been presented in Chapter 3 (The effects of EMI on the use of textual and interpersonal PMs), Chapter 4 (The functional uses of textual PMs from NSs and EMI learners), and Chapter 5 (Individual learner differences and PM use a comparison of full- and semi-EMI learners).

Before beginning the overall discussion of the dissertation a short summary of the main answers to the research questions is reported (section 6.1). Following this, a discussion of the main themes of the dissertation is offered. Firstly, the findings regarding the acquisition of PMs are discussed, because the acquisition of PMs is intertwined with the context, this is discussed in conjunction with the effects of the EMI context (section 6.2), then the relationship between IDs and PM learning is discussed (section 6.3). The discussion sections are followed by a section highlighting the main contributions this research puts forth (section 6.4). Finally, we conclude by recognizing the limitations of the dissertation (section 6.5) and summarizing the main conclusions of this dissertation (section 6.6).

6.1.   Summary of the findings

In this section the author refreshes the reader's memory as to the research questions and specific findings in response to them. Then after each question and answer is provided a reflection on whether the finding reflected the hypothesis made in section 2.5. However, since a detailed discussion of the specific findings and each research question has already been provided in each of the three studies discussion sections (sections 3.7.; 4.9.; 5.5) this section is kept quite brief.

Regarding the first study, presented in Chapter 3, of this dissertation, investigated the general outcomes of a full-EMI and a semi-EMI program on participants' PM the following two RQs were addressed:

RQ1: *Are there differences in overall frequency and variety of PMs used as a result of different degrees of intensity of the EMI programmes (full- or semi-EMI) and length (two or three years of exposure) to EMI?* The main response to this question is that semi-EMI learners were found to

produce a wider variety and a higher frequency of PMs from year two to year three. Whereas the full-EMI group experienced only a significant increase according to frequency of PM use.

RQ2: *Are there differences when comparing the frequency of textual and interpersonal PMs used as a result of different degrees of intensity of the EMI programmes (full- or semi-EMI) and length (2 or 3 years of exposure) of EMI?* The main finding in response to this question is that textual markers were produced significantly more by third-year students than by the second-year for both full- and semi-EMI learners and that there were no differences on any measure according to interpersonal PMs.

Regarding the hypotheses, the author expected to measure an increase in both the frequency and variety of PM use from second to third year of studies for both the semi- and full-EMI groups. Furthermore, it was predicted that there would be a measureable difference between the full- and semi-EMI groups performance, with the full-EMI group approaching the NS group more than the semi-EMI group. The author also expected that textual markers might be used more than interpersonal PMs due to the input these learners receive. Thus, the finding differs from what was expected, specifically, it was not expected that only the semi-EMI group would increase according to the variety of PMs used. This unexpected finding points out that perhaps there is a limit to the amount of hours that are beneficial to implicit acquisition of language features in populations such as the participants in this study. It seems that the most measureable improvements occur early on right at the onset of an increased exposure to the target language, then after the learners reach a level of saturation benefits are no longer measureable.

Upon interpreting the findings from the first study, namely that textual markers seemed to be produced frequently on behalf of the full-EMI learners, it was decided to carry out a more in-depth study examining the use of textual markers by full-EMI learners only compared to NSs, this time measuring each of the eight different functions of textual markers separately rather than all the functions of textual markers together, so as to see whether there were any specific types of textual PMs that were used more or less than others. These results were presented in detail in Chapter 4. The specific RQs posed in this second study were:

RQ3: *Do second-year EMI learners, third-year EMI learners, and NS use PMs differently according to the distribution of textual PM use?* The main findings show that there were significant differences between the second- and third-year EMI groups.

And **RQ3a**: *If there are any differences between the groups for which functions do the groups use textual PMs differently?* The main findings show that there were significant differences according to the functions of continuer and elaboration markers, which were used more by the NSs than the learners, and opening and closing markers were used more by both learner groups than by the NS group.

Regarding the hypotheses for RQ3 & 3a, the author expected to measure a positive progression towards NS use of PMs from year two to year three of studies. This was predicted due mainly to the increase in hours exposed to English via EMI instruction and therefore the increased opportunities for awareness and uptake, as well as the increased time being socialized in their field of study. In short the findings did match the authors predictions, in that the third-year EMI learners followed a similar distribution of use of textual markers as the NSs, especially for the functions of continuer, elaboration, and causal markers, whereas, the second-year EMI group learners followed a different pattern of distribution. Following this second study, the doctoral candidate was curious as to whether there were any relationships between the context of learning, IDs and the production of PMs and the following three RQs were posed:

RQ4: *Are there differences between full-EMI and semi-EMI groups according to the IDs, ideal L2 self, ought to self, attitudes, anxiety, and enjoyment?* When compared all together, in the second year, and in the third year of studies. The main finding in response to this RQ is that no differences were found between the full- and semi-EMI groups according to the IDs measured.

RQ5: *Are there differences within the full-EMI and semi-EMI groups according to the IDs, ideal L2 self, ought to self, attitudes, anxiety, and enjoyment?* When comparing second to third-year students. The main finding in response to this RQ is that there was a significant difference within groups, both full- and semi-EMI groups were more ought to self motived in the third year of studies compared to the second year of studies.

RQ6: *Are there any relationships between learner's IDs, ideal L2 self, ought to self, attitudes, anxiety and enjoyment and pragmatic marker use?* The main finding in response to this question is that a positive correlation was found between ought to L2 motivation and greater total PM use, and enjoyment positively correlated with a greater use of interpersonal PMs.

Regarding the hypotheses for these questions the author expected the full-EMI learners to be more ideal L2 self oriented compared to the semi-EMI. Because the full-EMI opted for English

study whereas the semi-EMI group opted for L1 study and were obliged to take a few courses through EMI. No prediction was made between how the groups would differ according to motivations from year-two to year-three of studies, nor how motivation orientation would affect the use of PMs. It was then predicted that those who were more positive and who experienced more enjoyment in the EMI classroom would produce more PMs than other learners. Thus, the first finding was not confirmed. Semi- and full-EMI learners were not measurably different according to motivational profiles. This might be due to the language in question, English is a world language that is imposed on learners from very early on in their education and it is the current lingua franca, which might make it difficult to tease apart learner motivations to learn it. This study found that learners became more ought to self oriented as they spent more time in the EMI context, and that ought to learners (who were also the third-year learners) produced more PMs than ideal L2 learners. Finally, the last prediction is confirmed that yes, those learners who enjoy EMI courses also produce more interpersonal PMs than other learners. We now turn to a discussion of the findings in relation to the three themes of this dissertation, the acquisition of PMs, the effects of the EMI context on PM learning and the relationship between IDs and EMI and their impact on PM learning.

6.2. PM acquisition in the EMI context

One of the main objectives of this doctoral research was to contribute to what is known about the acquisition of PMs. The study has brought to light a number of important findings. The results from the studies show a clear distinction between textual and interpersonal PMs, giving support to the theories of PMs that propose that there is a functional distinction between PMs (such as Aijmer, 2014; Andersen, 2001). It is clear from the results that there are two different types of PMs that operate to perform distinct functions. This rationale accounts for the discrepancy in use between the two different types of markers found in the first study on behalf of both the NSs as well as the learners. In addition, it was found that textual markers were produced more frequently than interpersonal markers by both full-EMI and semi-EMI students, while NSs produced more interpersonal markers than textual ones. These findings can be accounted for by looking at cognitive processing theory. Recalling the cognitive theories presented in the introductory chapters of this dissertation both Bialystok's (1993) two dimensional processing model as well as Schmidt's (1990) noticing hypothesis it is thought that a linguistic feature must first be noticed, and once a

learner is aware of a certain feature it is then available for processing or uptake (Bialystok, 1993). It is only when a feature is both noticed and taken up that it can begin its integration into the learners ILP system. This theory might be useful in interpreting the data. The EMI participants in these studies may have undergone one of these processes. For example, it could be that the EMI learners (either full or semi) noticed textual PMs more frequently than the interpersonal ones which would account for the discrepancy in frequency and variety of use of the two types of markers. Why textual markers might be noticed before or more frequently than interpersonal ones could be due to a number of factors. The first of them might be the context of learning. As was described in section 2.3.3. of this dissertation, the EMI setting is an academic setting that is information and content heavy. Due to the nature of this academic context, there is an increased reliance and use of textual markers (Zare & Keivanloo-Shahrestanaki, 2017). Due to the fact that the types of communicative actions that are carried out in an academic lecture follow very closely the functions of textual markers. For example, to show causal relations to give rationale to an argument, to mark the contrast between two parts of the discourse, these functions could be used when explaining processes or highlighting examples in a lecture. Another example is to elaborate, reformulate and exemplify, this is a necessary ability of a lecturer in order to clearly explain ideas to learners, and explanations require repetition reformulations and exemplification. These are speculations based on our own experience in teaching[7]. These actions thus, require the use of textual markers to a higher degree than interpersonal ones. In fact, it has been shown in a few studies that learners do attend to PMs during academic lectures, as was demonstrated in Flowerdew and Tauroza (1995), Jung (2003), and Reza et al., (2010) who measured learner comprehension of lectures either performed normally or with all the pragmatic markers removed. It was found that learners rely heavily on textual markers to interpret the content of the lecture. Something that might not be true of interpersonal markers, or at least is yet to be tested.

In order to explore other reasons besides the context of learning to explain why textual markers might be acquired before interpersonal ones, it is necessary to review some of their features and functions. Looking at textual markers we see that they have more transparent meanings than interpersonal markers do. For example, as Fraser, (1999), and Schourup (1999)

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[7] A proper observational study of the PMs appearing in the input received by our sample population would be necessary; something we plan to undertake as future research

demonstrate, textual markers have more of a core meaning than interpersonal markers do. This is the case of the marker *because*, *and,* or *but,* compared to the markers *well*, *oh*, and *sure*. Thus, the factors already mentioned here: the frequency of textual PMs in the input, the evidence that learners attend to them, which leads to their acquisition - according to cognitive theories - as well as the fact that the core meaning of textual markers might be more recognizable to L2 speakers, all might contribute to account for why learners produce textual markers at such high levels after participation in EMI programs. Additionally, some SLA theories propose that L2 speakers tend to process language differently than NS; they do not always follow the same acquisitional patterns as NSs did while learning their first language (Clahsen & Felser, 2006b). This is thought to be due to language transfer or to the interference or benefit of having a fully developed language system already in existence in the brain. Furthermore, it has been suggested that learners perform a shallow processing rather than a deep processing on the input they receive and that it takes awareness training and explicit instruction to change this processing (Clahsen & Felser, 2006a). This, related to the acquisition of PMs, this might mean that the surface meaning of textual markers is clear, whereas, the processing of interpersonal markers might require a deeper processing of the input.

Turning to focus our attention on the acquisition of interpersonal markers, why is it that the EMI learners produced these markers so infrequently? Well, the flip side of the factors mentioned in the paragraph above in which the frequent use of textual PMs in the EMI context were accounted for could be taken. For example, that interpersonal PMs appear less frequently in the input and that their meanings might be more semantically opaque or may be less clear to learners. In addition, it seems that these PMs are the ones that are likely to be all but brushed over in second or foreign language classrooms (Vellenga, 2004). While it is clear that items such as *because, but, and, first of all*, are all addressed in the L2 classroom, items such as *sort of, sure, well, oh, you know, I mean* are not, thus, making it more difficult for learners to try to decipher the core meanings of these markers on their own. There is also a social or interactional element to interpersonal markers. In some studies it has been shown that those who socialized performed better when it comes to interpersonal PMs' production (Liu, 2016; Shively, 2015). These studies, in addition to the findings from this dissertation study in relation to the acquisition of textual markers before interpersonal ones, suggest that in order to acquire interpersonal PMs, it might be necessary to socialize with high proficiency speakers of the language or NSs. As is suggested in sociocultural theories, presented in Chapter 2, a learner needs guidance and scaffolding from the

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expert and, in this way, acquisition occurs. The acceptance and inclusion of a learner into the culture might be a necessary step towards the acquisition of these markers. This would be because identity is so closely related to the use of these markers that it may be necessary to feel part of the community and have built some sort of second language identity in order to feel comfortable using interpersonal markers in an L2. It could be that very limited real contact with the language outside educational or work settings does not provide enough input or interaction experience for the learners to create a second language identity. This then, in turn, would have an impact on the willingness or ability to express themselves in the L2. Explained through a sociocultural model, the learners need to be admitted to the society in order to assume and integrate the pragmatic use of interpersonal markers into their L2 pragmatics.

To summarize what has been discussed in this section, the findings in our first study serve as evidence for different rates of acquisition of these two types of markers (textual and interpersonal) in the EMI context. These different rates of acquisition are closely related to the functions that the PMs carry out. To elaborate, textual markers carry out functions such as to show causal relationships, to show a continuation of discourse, to elaborate, to signal the opening or closing of discourse etc. These functions can be described as pragmalinguistic functions which relate to organizational competence (Bachman, 1990). The findings from the studies in this dissertation provide evidence to support that learners in the EMI context are apter or prepared to acquire this type of knowledge. As discussed this might be due to input factors, to qualities or functions of the markers themselves or due to textual markers requiring a shallow processing on the part of the L2 learners. On the other hand, interpersonal markers carry out functions such as marking information receipt, stimulating or maintaining interaction, showing alignment or disagreement with an interlocutor, marking of attitudes or emotional reactions etc. these functions are more sociopragmatic and pragmatic competencies (Bachman & Palmer, 1996). The findings from the studies in this dissertation seem to show that EMI learners are slow to develop these two competencies or knowledge, which could be due to a lack of sufficient input, socialization, a strong L2 identity or noticing of these features due to shallow processing. This conclusion was also reached by other researchers who found that both learners and NSs have the same forms available to them but that learners do not attend to the context, they do not rely on social cues rather focus only on linguistic cues (Hill, 1997). Furthermore, the results of this dissertation show that pragmalinguistic knowledge can be acquired cognitively, whereas sociopragmatic knowledge and

the use of interpersonal PMs must be acquired or is more easily or naturally acquired via social integration socialization. In this way, it might be unrealistic to expect the acquisition of interpersonal PMs as a result of EMI, given the fact that the EMI courses in which our data were collected would tend to be teacher-centered, and rely on frontal lecturing with little interaction going on both between the teacher and the students, or the students among themselves.

6.3.   IDs and PM learning

This dissertation research has brought forth a number of findings regarding IDs, EMI and PM learning. Firstly, it is notable that there were no significant differences detected between semi- and full-EMI learners according to any of the ID variables not according to the production of PMs. This suggests that by implementing a partial EMI program learners can receive both the same linguistic benefits as well as motivational benefits that participating in a full-EMI program might bring. Furthermore, the fact that both semi- and full-EMI learners were very similarly motivated when measured in year two and year three of the degree, can be interpreted as a positive result. It is encouraging to know that both semi- and full-EMI learners have similar profiles and that the EMI learners are not different or superior regarding their motivations or efforts than other students as they are sometimes considered to be by faculty. This finding points out that due to the position of English as the current lingua franca, the attitudes, emotions and motivations to acquire it are similar across university students, and that those who choose to learn mainly via their L1 with just a course or two in English (i.e. the semi-EMI group) are equally motivated to learn English as the full-EMI learners. In addition, it seemed from the results that the majority of participants were very positive towards learning English and recognized the incorporation of English in higher education programs as somewhat standard or normal.

The finding regarding an increase in ought to self motivation from year two to year three could be interpreted as a sign that the local students might experience a type of internationalization at home. In that, the increased interaction with English leads the students to the realization that this language is the working language of Europe and they increasingly identify more strongly with the need to become international in order to avoid negative consequences, such as not being qualified for jobs, or disappointing family members. The negative side of this finding is that it shows that the societal pressures do not promote English in a positive way as a tool one can use to

enable oneself and enrich ones' personal or professional life, rather, speaking English is seen as a skill you need in order to avoid negative consequences. It would be preferable to encourage more ideal self motivations rather than ought to self motivations as these have been linked to more positive language learning outcomes.

The findings of the third study of this dissertation, regarding the IDs, support and underline the themes discussed in the previous section of this discussion. Namely, the fact that those learners who experienced more enjoyment in the EMI classroom produced more interpersonal markers. This finding provides further evidence to be added to the existing evidence presented in this dissertation suggesting that interpersonal markers may be acquired quicker or more easily when one is socialized in the language, and when one has the opportunity to adopt an identity in the L2. It seems that those who enjoy English also interact more often in English, have more friends and are more open to integrating with target language speakers. These are all factors that have been associated with positive language learning outcomes (Dewaele & Alfawzan, 2018; Dewaele & MacIntyre, 2014; MacIntyre & Vincze, 2017). In addition to the points mentioned thus far, the third study of this dissertation brings to light the importance of measuring IDs in EMI and other SLA studies. As pointed out by the dynamic systems theory it is important we do not view language learning as a static and cause and reaction type of learning. It is essential we recognize it as a dynamic ever-changing process. That not only involves cognitive or social factors but also internal and individual factors.

6.4.   Contributions and implications of the study

Some implications of this doctoral dissertation are the following. Firstly, regarding policy and implementation of EMI programs, it seems entirely possible and practical to implement partial EMI programs. As the linguistic benefits of full-EMI do not seem to outweigh the costs. These costs were, the attention given to the local language, the ease of learning and being permitted to express oneself through their first or another preferred language. As well as the increased efforts on behalf of the professors increased cost for training professors and students, possible limited learning on behalf of the students, and the extra work the learners have to put into their courses. If partial programs were accepted then the cost of staff training efforts could be reduced. The strengthening and reinforcing the prestige of local languages in the academic sphere could be

supported. The realization of all these factors could lead to real internationalization and multilingualism rather than monolingual English policies being implemented.

The second important implication of this thesis is that it becomes evident that language support is needed if language gains or English proficiency is a real goal of EMI programs. This conclusion may require more studies regarding a wider variety of linguistic features. However, by contemplating the research conducted so far in EMI as reviewed in section 2.3.2. in combination with the results of this dissertation and the research on immersion or CLIL programs where it has been found time and time again that while these learners experience more gains than formal instruction learners they still require specific language support in order to acquire a number of language skills (Canale & Swain, 1980; Lyster, 2002). In addition to explicit language support, the results from this doctoral thesis suggest that in order to acquire some pragmatic features, such as interpersonal PMs a certain degree of socialization is necessary. The learners need to be in contact with the culture or a group of experts in the language to scaffold them to target language use (Lantolf & Thorne, 2007; Ohta, 2005). This would lead us to conclude that perhaps pragmatic learning is not a realistic goal of EMI education. As it is quite clear and understandable that the main goal of this type of education is to teach the content of the subject. However, it does seem to be a realistic goal to expect some kind of organizational competence or pragmalinguistic gains as these are more available in the input. This thesis shows that the EMI learners opt for a shallow interpretation of PMs, perhaps through more explicit training the learners would learn to interpret and implement the use of PMs into their output. For example, in a language support course, learners could be made aware of sociopragmatic features, smaller interactive groups of learners with language experts rather than context experts could lead to more measurable language gains than EMI research has reported thus far. Regarding IDs, this dissertation reflects both the need and benefit of encouraging and supporting the creation of positive learning experiences as this can potentially help facilitate language acquisition. Additionally, this dissertation supports the idea that by enrolling or participating in either a semi- or full-EMI program, learners were positive towards English. This shows a real effect of internationalization at home, something that has been eluded to as a sort of bonus to the increased revenue made from international students, but something that to date has little evidence to back it up.

6.5.   **Limitations and further research**

While it is the hope of the author that this doctoral thesis will make an important contribution to the field of SLA and pragmatics, there are some limitations that must be mentioned. One of the main limitations of the thesis has to do with the participants. The participants were four different groups of individuals a semi-EMI year two, a semi-EMI year three, a full-EMI year two and a full-EMI year three. Due to the highly individual nature of PMs having the same participants would have been ideal, this limitation also affects the D variables. Stronger conclusions would have been made regarding IDs and PMs use if the same individuals were followed throughout their degree program. However, this was simply not possible due to the requisites concerning the duration of the thesis. It would have taken too long to collect the data. Another limitation regarding the third study (Chapter 5), is that it would have been optimal to give the participants the same survey multiple times in order to attempt to account for inter individual variation over the one year of studies. Regarding the instruments, stimulated interactions were recorded, results might have been different if authentic communication was recorded. However, it also would have been impossible to control for topic, genre, context, or length of interaction if natural occurring data were collected, something which in the end made the stimulated conversation preferable as well as more practical.

Interesting avenues for further research include, as already mentioned, observing and analyzing the EMI lectures regarding the use of interpersonal and textual markers in order to confirm the assumptions made in the discussion sections of this thesis regarding the input. In addition, it would be interesting to analyze the amount of interaction and speaking opportunities the students have in these types of classes, as that is also a factor in SLA. It would also be optimal to study the learners from their first to last year of studies to track continual progress.

6.6.   **Conclusions**

To conclude, this doctoral study had three main aims, it sought to investigate the use of textual and interpersonal markers by second and third year undergraduate students who were enrolled in either a semi- or a full-EMI degree program. It then analyzed the use of different functions of textual markers on behalf of second and third year EMI learners compared to NSs, and, finally, it investigated the relationship between IDs such as motivational profile, and anxiety and enjoyment

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and the use of PMs amongst full- and semi-EMI learners. The main findings were that as learners spend more time in either a semi- or full-EMI program their use of PMs increased according to their frequency and variety. They also increased significantly their use of textual markers but there were no effects of EMI on the use of interpersonal markers. When investigating textual markers according to the eight different functions identified in the literature, (i.e. causal, contrastive, continuation, elaboration, opening or closing, sequencing, topic shifting/digression, and summary markers), it was found that NSs produced more continuers and elaboration markers than both second and third year EMI, and that the two EMI groups produced less opening and closing discourse markers than the NSs. Finally, regarding the relationship between EMI intensity (either full- or semi-EMI) and IDs, the author reported that intensity of study had no relationship to motivational profile, but that year of study did have a significant effect on motivational profile. More specifically, third year students tended to be more ought to self motivated (i.e. learners driven by external factors) than second year students. These ought to self motivated learners were also found to produce a higher frequency of PMs than the ideal L2 self learners (i.e. learners driven by internal factors). The final important finding was that there was a positive relationship between L2 enjoyment and the production of PMs. Despite the limitations of the study, namely that the comparisons between second and third year students were cross-sectional and not longitudinal, the study still makes some important contributions to the field of L2 pragmatics. Specifically, regarding the acquisition of PMs this dissertation shows that textual PMs can be somewhat acquired without any instruction via the EMI learning context. Furthermore, textual markers that are more transparent in meaning, such as *but*, *because*, and, *and* seem to be acquired first, then more opaque PMs which show less clear semantic meaning might take more time to acquire, for example, *kind of, in that,* and *well*. Regarding interpersonal markers, the participation in EMI programs seems to have no effect, the acquisition of these markers may require exposure to a different context, explicit instruction or more intense socialization. Regarding IDs, this dissertation reflects both the need and benefit of encouraging and supporting the creation of positive learning experiences as this can potentially help facilitate the learning of PMs by offering more awareness and instruction regarding both textual and interpersonal markers. It is the hope of the author of this study that these findings can be useful to both future EMI students, teachers, regarding the acquisition of PMs as well as to HE institutions when implementing EMI programs.

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Appendix A: Attitudes towards English

This section is to help us understand foreign language acquisition. We would like to know how you feel whenever you take English classes or classes in your degree taught through the medium of English. Think about your most positive experience.

If you are taking courses taught through English in your degree (IBE, ECO & ADE

Groups 1, 2), think about those courses. If you are not, think about your most recent experience in English classes.

There is no 'right' or 'wrong' answer, everyone is different. This is an anonymous questionnaire your identity will not be revealed.

Please read the question carefully before responding and try to answer as truthfully as possible. It will go by quickly. :)

Thank you for helping us!

Students were asked to respond to the following statements by selecting one of the following responses:

strongly disagree

disagree

undecided

agree

strongly agree

Even if I am well prepared, I feel anxious in classes when the instructor uses English.

I always feel that the other students speak English better than I do

I can be creative when speaking English

I can feel my heart pounding when I need to start speaking in English

I can laugh off embarrassing mistakes when speaking in English

I don't worry about making mistakes while speaking English

I don't get bored in classes when the instructor uses English

I feel as though I'm a different person during classes when English is used as the means of communication.

I enjoy my classes when English is the primary mean of communication.

I feel confident when I speak in English

I get nervous and confused when I am speaking English.

I've learnt to express myself better in English.

I start to panic when I have to speak in English without preparation.

It embarrasses me to volunteer answers in classes when English is the means of communication.

I feel I am in a positive environment when English is used as the means of communication in class.

It's cool to know foreign languages, like English.

I feel it is fun when English is used as the means of communication in class.

Making errors is part of the language learning process.

My peers are nice.

The teacher is encouraging.

The teacher is supportive.

There is a good atmosphere in my classes when English is used.

How uneasy do you feel when speaking to English speakers?

0 perfectly fine - 10 extremely nervous and uneasy

How worried are you that other speakers of English will find your English strange?

0 not worried at all - 10 extremely worried

Appendix B: Motivational Orientation

Students were asked to respond to the following questions by selecting one of the following responses.

Agree

Strongly agree

Disagree

Strongly disagree

Neither agree nor disagree

My parents encourage me to study English as much as possible.

I study this language because close friends of mine think it is important.

I am prepared to put a lot of effort into learning English.

When I think of the future, I can imagine myself using English in a variety of ways.

I consider learning English important because the people I respect think that I should do it.

Studying English is important to me to gain the approval of my peers/boss/teachers/family

Being successful in English is important to me so that I can please my parents/relatives/teachers

Studying English is important to me because other people will respect me more if

I have knowledge of English

I have to study English because, otherwise, I think my parents will be disappointed with me.

I can imagine myself being a very competent speaker of this language.

People around me believe that I must study this language to be an educated person.

I would like to spend lots of time studying this language.

I can imagine myself writing e-mails fluently in this language.

Studying English is important to me because I think it will be useful in getting a good job or to make money.

I would like to study this language even if I wasn't required to do so.

Studying English is important to me in order to achieve a special goal (complete a degree or get a scholarship or specific job etc.)

Studying English is important to me because I cannot get my degree without a B2 level.

Whenever I think of my future career I imagine myself using English.

It is important to learn English in order to learn more about the culture and art of its speakers.

I like to listen to English music.

I like to watch movies in English.

I like TV programs made in English speaking countries.

I like English magazines, newspapers, and books.

I like people who live in English speaking countries.

I like meeting people from English speaking countries.

I like traveling to English speaking countries.

Studying English is important to me because English proficiency is necessary for promotion in the future

I study English in order to keep updated and informed of recent news of the world

I have to study English otherwise I think I cannot be successful in my future career

Studying English is necessary for me because I don´t want to get a poor score or fail the English proficiency tests.

Studying English is important to me because I do not want to be considered a poorly educated person.

Learning English is important to me because I would like to travel internationally

Studying English is important to me because without English I won't be able to travel a lot.

I study English because with English I can enjoy travelling abroad.

Studying English is important to me because I am planning to study abroad.

If I had the opportunity to study more through English instruction courses I would take them.

I would like to be similar to the people who speak English

I can imagine myself speaking English with international friends and colleagues

I can imagine myself living in an English speaking country being well integrated into the community

I would like to know more about people who live in English speaking countries

I can imagine myself speaking English with international friends and colleagues

How much do you like English? (on a scale of 1 to 10)

Appendix C: Cambridge quick test of English placement test

When can we meet again?

○ When are you free?
○ It was two days ago.
○ Can you help me?

When you stay in a country for some time you get used to the people's _____ of life.

○ habit
○ custom
○ way
○ system

The builders are _____ good progress with the new house.

○ getting
○ doing
○ making
○ taking

She is now taking a more positive _____ to her studies and should do well.

○ attitude
○ behavior
○ manner
○ style

My father _____ his new care for two weeks now.

○ has had
○ has
○ is having
○ had

What differences are there _____ the English spoken in the UK and the English spoken in the USA?

○ among
○ between
○ beside
○ with

At 6 p.m. I started to get angry with him because he was late _____

○ as usual.
○ in general.
○ typically.
○ usually.

_____ you get your father's permission, I'll take you skiing next weekend.

○ Although
○ Provided
○ As
○ Unless

A local company has agreed to _____ the school team with football shirts.

○ contribute
○ supply
○ give
○ produce

I really enjoy stories that are _____ in the distant future.

○ found
○ set
○ put
○ placed

That old saucepan will come in _____ when we go camping.

○ convenient
○ fitting
○ handy
○ suitable

My aunt is going to stay with me.

○ How do you do?
○ How long for?
○ How was it?

Anyone _____ after the start of the play is not allowed in until the interval.

○ arrives
○ has arrived
○ arriving
○ arrived

I didn't _____ driving home in the storm so I stayed overnight in a hotel.

○ fancy
○ desire
○ prefer
○ want

The judge said that those prepared to _____ in crime must be ready to suffer the consequences.

○ involve
○ engage
○ undertake
○ enlist

Marianne seemed to take _____ at my comments on her work.

○ annoyance
○ insult
○ offense
○ indignation

You should not have a dog if you are not _____ to look after it.

○ prepared
○ adapted
○ arranged
○ decided

The farmhouse was so isolated that they had to generate their own electricity _____

○ current.
○ supply.
○ grid.
○ power.

When do you study?

○ at school
○ in the evenings
○ in the library

Let's have dinner now.

○ You aren't eating.
○ There aren't any.
○ Tom isn't here yet.

The snow was _____ heavily when I left the house.

○ dropping
○ landing
○ falling
○ descending

I can't find my keys anywhere - I _____ have left them at work.

○ can
○ must
○ ought
○ would

When a car pulled out in front of her, Jane did well not to _____ control of her bicycle.

- ❍ miss
- ❍ lose
- ❍ fail
- ❍ drop

According to Richard's _____ the train leaves at 7 o'clock.

- ❍ opinion
- ❍ advice
- ❍ knowledge
- ❍ information

Would you prefer lemonade or orange juice?

- ❍ Have you got anything else?
- ❍ If you like.
- ❍ Are you sure about that?

Appendix H: Status of Publication Chapter 3

The third chapter of this doctoral thesis was submit to the journal Pragmatics and I was notified of its acceptance on May 2ⁿᵈ 2018. Below is the acceptance letter from *Pragmatics*.

[PRAGM] Your submission PRAG-17042R2

Pragmatics <em@editorialmanager.com>

2ⁿᵈ May 2018

CC: helmut.k.gruber@univie.ac.at

PRAG-17042R2 (Pragmatics)
"The effects of English-medium instruction on the use of textual and interpersonal pragmatic markers."
by Jennifer Rose Ament, Masters; Carmen Pérez Vidal, PhD; Júlia Barón Páres, PhD

Dear Jennifer,

Thank you for submitting your manuscript to the Pragmatics.

We are pleased to let you know that your work has been accepted for publication and we have received all final files as well as the copyright form.

Thank you for submitting your work to PRAGM.

With kind regards

Helmut Gruber
Editor-in-Chief

Appendix I: Status of Publication Chapter 4

The fourth chapter of this thesis has been submit as an article to the Journal of Pragmatics with a group of other researchers and their respective articles. After a presenting in a panel at the IPRA conference in Belfast 2017. We jointly submit a proposal to the Journal of Pragmatics to publish a volume dedicated to the study of the functions of pragmatic markers. I was notified of the acceptance of the special edition in May 2018. However, each paper is currently being peer reviewed and we are expecting notification very soon, in fact the status of the article in now 'ready for decision'.

Below is the email in which I was notified of the acceptance of the special edition with the Journal of Pragmatics

Dear colleagues,
The semester ends on some excellent news: **the Special Issue has been accepted by Journal of Pragmatics**! I would like to give you some information for the next steps of this project.

Now, it is important to make it clear that, although the Special Issue is accepted, each paper still has to go through external reviewing, as if it was a regular submission to JoP, so that we cannot guarantee that all papers will be accepted in the end.

As always, do not hesitate to contact me (or Sarah) for any questions. We are expecting your confirmation of the deadline by **next Friday** (22nd of May). Many thanks in advance.

All best wishes,
Ludivine and Sarah

Furthermore this is the email received from the journal of Pragmatics after submitting the article.

This message was sent automatically. Please do not reply.

Reference: PRAGMA_2018_451
Title: The Functional uses of Textual Pragmatic Markers from Native Speakers and English-medium Instruction Learners
Journal: Journal of Pragmatics

Dear Miss. Ament,

I am currently identifying and contacting reviewers who are acknowledged experts in the field. Since peer review is a voluntary service it can take time to find reviewers who are both qualified and available. While reviewers are being contacted, the status of your manuscript will appear in EVISE® as 'Reviewer Invited'.