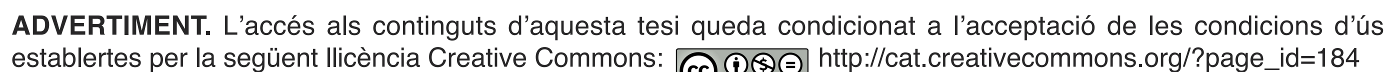
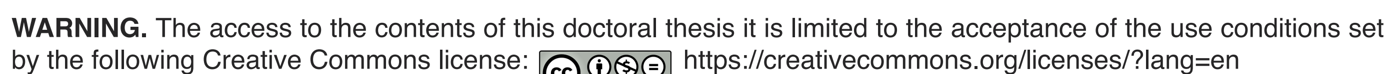
Universitat Autònoma de Barcelona



ADVERTIMENT. L'accés als continguts d'aquesta tesi queda condicionat a l'acceptació de les condicions d'ús establertes per la següent llicència Creative Commons: http://cat.creativecommons.org/?page_id=184

ADVERTENCIA. El acceso a los contenidos de esta tesis queda condicionado a la aceptación de las condiciones de uso establecidas por la siguiente licencia Creative Commons: http://es.creativecommons.org/blog/licencias/



WARNING. The access to the contents of this doctoral thesis it is limited to the acceptance of the use conditions set by the following Creative Commons license: https://creativecommons.org/licenses/?lang=en

Universitat Autònoma
de Barcelona

Doctoral Thesis

Professional Development and the Interactional Accomplishment of EMI Expertise

Doctoral Candidate

Joan Catherine Ploettner

Departament de Didàctica de la Llengua i la Literatura i de les Ciències Socials

Doctorat en Educació

Directors: Dr Emilee Moore, Dr Mandy Deal

Bellaterra, May, 2019

Abstract

This thesis looks at the inner workings of a teacher training initiative for English medium instruction (EMI) through the analysis of interactional data. It takes a social constructivist perspective in order to study the process of EMI teacher development and to shed light on how it is co-constructed in interaction. In Chapter 1 the theoretical roots and historical antecedents of English medium instruction are set forth, followed by an overview of different approaches to instruction in additional languages at university, including EMI, and ending with a focus on EMI teacher development, the area of this dissertation. Chapter 2 presents the objectives and research questions of the dissertation, while Chapter 3 focuses on ontological and epistemological aspects, as well as the principal theoretical framework of this thesis, being conversation analysis (CA). The methods are set forth in Chapter 4, including a description of the institutional context, the teacher development process and the participants, as well as a description of the processes employed in data collection, selection and analysis. The data and analysis are presented in Chapters 5 to 9. Firstly, Chapter 5 examines the participants' initial shared worldviews of EMI, their underlying assumptions about language learning, and the consequences that these assumptions have on a practical level for EMI teaching. Chapter 6 focuses on how the planned EMI teacher development (EMITD) process is negotiated and organized by the participants. Chapter 7 examines situated social actions which create opportunities for the interactional accomplishment of EMI expertise. The presentation of a working hypothesis and heuristic for the study of EMI expertise in Chapter 8 offers a theoretical and methodological approach for the study of EMI expertise in other similar EMITD processes. Chapter 9 presents emerging findings with respect to the transformative potential of the EMITD process as well as the role of material artefacts in this process. Finally, in Chapter 10, a discussion of the major findings with respect to the three main

research questions and emerging findings are presented. This is followed by a concluding section which provides practical applications and directions for future research.

Very little previous research has examined EMI teacher training from a social constructivist and interactionist perspective. The data and analysis presented here provide evidence of the contribution of these frameworks for understanding how EMI teacher training actually occurs. By offering a view into the "nitty-gritty" of EMI teacher training, it provides unique findings as to how EMI teacher development is accomplished – made visible and co-constructed – in interaction.

On one hand, the findings reveal existing language ideologies in relation to models of teaching and learning, as well as the repercussions such ideologies may have for how EMI is conceptualized and performed. The findings also reflect significant reinterpretation of the originally planned teacher training process and the roles of the participants, as well as the co-construction of participation frameworks which, at the onset of the process, do not facilitate interdisciplinary collaboration. Comparative analysis of both language ideologies and participation frameworks at the beginning and end of the professional development process suggests the transformative potential of the process. Another major finding involves the significant and varied roles of material artefacts throughout the EMI teacher development process, including the role of material artefacts in the interactional co-construction of EMI expertise. Finally, this dissertation develops a theoretically-derived heuristic tool for the study of the interactional accomplishment of EMI expertise and its application to interactional data collected during the study. This tool is presented as a working hypothesis and as a first approximation to the conceptualization of the interactional accomplishment of EMI expertise, as an aid to future interactional research in this area.

Resum

Aquesta tesi analitza el funcionament intern d'una iniciativa de formació del professorat universitari per a l'ensenyament per mitjà de l'anglès. Des d'una perspectiva constructivista social estudia el procés de formació de professors de ensenyament per mitjà de l'anglès i investiga com es construeix la seva expertesa. En el primer capítol s'exposen les arrels teòriques i els antecedents històrics de l'ensenyament per mitjà de l'anglès, seguits d'una visió general dels diferents enfocaments d'ensenyament en llengües addicionals a la universitat. Aquest primer capítol finalitza amb una revisió de investigació existent de la formació del professorat per l'ensenyament per mitjà de l'anglès, l'àmbit d'aquesta tesi. El Capítol 2 presenta els objectius i preguntes de recerca de la tesi, mentre que el tercer capítol se centra en aspectes ontològics i epistemològics, així com el principal marc teòric d'aquesta tesi, que és l'anàlisi de conversa (CA). Els mètodes es detallen al Capítol 4, que inclou una descripció del context institucional, el procés de formació del professorat, els participants i una descripció dels processos emprats en la recopilació, selecció i anàlisi de dades. Les dades i les anàlisis es presenten en els Capítols 5 a 9. En primer lloc, el Capítol 5 examina les visions compartides inicialment de l'ensenyament per mitjà de l'anglès, les seves hipòtesis subjacents sobre l'aprenentatge de llengües i les conseqüències que aquests supòsits tenen a un nivell pràctic per la docència per mitjà de l'anglès. El Capítol 6 se centra en la negociació i organització inicial del procés de formació. El Capítol 7 examina les accions socials situades que generen oportunitats per la co-construcció de l'expertesa en l'ensenyament per mitjà de l'anglès. La presentació d'un model heurístic de la construcció en interacció de l'expertesa al Capítol 8 ofereix un enfocament teòric i metodològic per a l'estudi de la co-construcció de expertesa en l'ensenyament per mitjà de l'anglès. El Capítol 9 presenta resultats emergents respecte al potencial transformador del procés de formació, així com

el paper dels artefactes materials en el procés formatiu. El Capítol 10 exposa les conclusions respecte a les tres preguntes de recerca principals i les troballes emergents. Una secció final proporciona aplicacions pràctiques i indicacions per a futures investigacions.

Molt poques investigacions anteriors han examinat la formació dels professors de l'ensenyament per mitjà de l'anglès des d'una perspectiva social constructivista i en interacció. Les dades i les anàlisis presentades proporcionen evidència de la contribució d'aquests marcs per entendre com els processos de formació d'aquests professionals són construïts en la interacció i com i quan afavoreixen el desenvolupament de la expertesa.

Els resultats mostren ideologies de llengües existents en relació amb models d'ensenyament i aprenentatge, així com les repercussions que poden tenir aquestes ideologies sobre com es conceptualitza i realitza l'ensenyament per mitjà de l´anglès. Els resultats reflecteixen una reinterpretació significativa del procés de formació planificat, així com la construcció de marcs de participació que no faciliten la col·laboració interdisciplinària. El anàlisi comparatiu tant de les ideologies lingüístiques com dels marcs de participació al principi i al final del procés suggereix el potencial transformador del procés. L'anàlisi reflecteix els rols significatius i variats dels artefactes materials al llarg del procés, incloent-hi el paper dels artefactes materials en la co-construcció en interacció de l'expertesa. Finalment, aquesta tesi presenta una eina heurística per a l'estudi de la co-construcció de la expertesa en l'ensenyament per mitjà de l'anglès. Aquesta eina es presenta com una hipòtesi de treball i com a primera aproximació a la conceptualització com a ajuda a futures investigacions en aquest àmbit.

INDEX

Acknowledgements 1

Overview and structure of the dissertation 3

Chapter 1 7

Introduction to EMI teacher professional development 7

1.1 Roots of English medium instruction 8

1.2 English language instruction in higher education 19

1.3 English medium instruction 29

1.4 Professional development for EMI 43

1.5 The current research 51

Chapter 2 55

Objectives and research questions 55

Chapter 3 59

Theoretical and methodological framework: Ethnomethodological conversation analysis 59

3.1 Ontologic and epistemologic considerations of the research approach 60

3.2 Ethnomethodological conversation analysis 61

Chapter 4 75

Methods 75

4.1 The institutional context of the study 75

4.2 EMI teacher development partnerships 76

4.3 The participants 82

4.4 The EMI teacher development partnership 83

4.5 Data collection and analysis 86

4.6 Data selection 86

4.7 Data analysis 87

Chapter 5 91

Focus on shared worldviews of EMI 91

5.1 Language policy and language preference issues 91

5.3 Membership category analysis 93

5.3 Data and analysis 96

5.5 Discussion 113

Chapter 6 117

Initial negotiations and participation 117
6.1 Problematizing interdisciplinary collaboration for EMI 117
6.2 Participation 120
6.3 Data and analysis 122
6.4 Discussion 145
Chapter 7 151
Situated social actions which support the development of EMI expertise 151
7.1 Conceptualizing how situated social actions create opportunities for the accomplishment of EMI expertise 151
7.2 Data and analysis 158
7.3 Discussion 173
Chapter 8 177
Conceptualizing the interactional accomplishment of EMI expertise 177
8.1 Conceptualizing EMI expertise 178
8.2 Data and analysis 184
8.3 Discussion 214
Chapter 9 217
Emerging findings regarding the DP-EMI process 217
9.1 The transformative potential of the DP-EMI process 217
9.2 Role of material artefacts in the DP-EMI process 223
Chapter 10 231
Main findings and conclusions 231
10.1 Study objectives 231
10.2 How the DP-EMI process is co-constructed at a local level 232
10.3 How EMI expertise is accomplished in interaction 233
10.4 Modelling the interactional accomplishment of EMI expertise for future studies 234
10.5 Emerging findings regarding the DP-EMI process 235
10.6 Practical applications and future research directions 236
Annex 1: 240
Consent form 240
Annex 2: 241
Transcription conventions 241
Annex 3 242

Official document describing the development groups 242
Lesson plan document 245
References 247

Acknowledgements

The doctoral thesis process is a long and tumultuous journey. For those few of us who decide to start this journey at an advanced age, it is perhaps even more challenging as the need to immerse oneself in the process requires motivations other than career advancement. For the 'mature' doctoral student, the doctoral process overlaps with a time in life when she or he is planning to expand their life experiences and social contacts in order to confront the opportunities and challenges which accompany getting older in western society. I cannot deny that this process has represented many sacrifices for me, as it does for all doctoral students. Yet, it has also provided many rewards in moments of intellectual enlightenment and enjoyment.

Perhaps first and foremost, I have (re)discovered the process of learning through writing, watching thoughts and ideas emerge as they appear on paper. In the future, if possible, I would like to share with others the rewards of writing, whether it be working with other junior researchers or perhaps participating in adult literacy projects in my adopted home town here in Spain.

The doctoral research process has also facilitated my entry into the world of academia, with all the positive and negative aspects this implies. It has provided me with opportunities to learn from other scholars and to share my thinking and research with many other dedicated researchers, opportunities which have contributed enormously to the development of this thesis.

I consider myself extremely lucky for all the support I have received from institutions, colleagues, family and friends and wish to express here my gratitude for the patience of all of you, without which this process would not have been possible. Special thanks go to my directors, Dr Emilee Moore, Dr Mandy Deal and tutor, Dr Melinda Dooly. Your guidance and support has been fundamental throughout this long process.

Institutional support from the Universitat Autònoma de Barcelona (UAB) and the Universitat Internacional de Catalunya (UIC) has made this thesis possible. I am indebted to the content lecturers at the Universitat Internacional de Catalunya who generously volunteered to collaborate in this research process, and must also recognize the constant support of my work colleagues at the Institute for Multilingualism at the UIC, and the GREIP research group at the UAB. Finally, a heartfelt thanks to my family, friends, and above all to my parents for the encouragement and sacrifices they made in order that I and my sister and brother could pursue their chosen academic interests and careers.

Carrying out this dissertation has obliged me to reflect on and modify my own practice. It is my belief, however, that research should have social benefits. It is my hope that the findings from this research contribute to the ongoing reflection on, and development of, English medium instruction (EMI) teacher training processes at my home institution and perhaps elsewhere.

Forward

Overview and structure of the dissertation

This thesis looks at the inner workings of a teacher training initiative for English medium instruction (EMI) through the analysis of interactional data. It takes a social constructivist perspective in order to study the process of EMI teacher development and to shed light on how it is co-constructed in interaction. In Chapter 1 the theoretical roots and historical antecedents of English medium instruction are set forth, followed by an overview of different approaches to instruction in additional languages at university, including EMI, and ending with a focus on EMI teacher development, the area of this dissertation. Chapter 2 presents the objectives and research questions of the dissertation, while Chapter 3 focuses on ontological and epistemological aspects, as well as the principal theoretical framework of this thesis, being conversation analysis (CA). The methods are set forth in Chapter 4, including a description of the institutional context, the teacher development process and the participants, as well as a description of the processes employed in data collection, selection and analysis. The data and analysis are presented in Chapters 5 to 9. Firstly, Chapter 5 examines the participants' initial shared worldviews of EMI, their underlying assumptions about language learning, and the consequences that these assumptions have on a practical level for EMI teaching. Chapter 6 focuses on how the planned EMI teacher development (EMITD) process is negotiated and organized by the participants. Chapter 7 examines situated social actions which create opportunities for the interactional accomplishment of EMI expertise. The presentation of a working hypothesis and heuristic for the study of EMI expertise in Chapter 8 offers a theoretical and methodological approach for the study of EMI expertise in other similar EMITD processes. Chapter 9 presents emerging findings with respect to the transformative potential of the EMITD process as well as the role of material artefacts in this process. Finally, in Chapter 10, a discussion of the major findings with respect to the three main

research questions and emerging findings are presented. This is followed by a concluding section which provides practical applications and directions for future research.

Very little previous research has examined EMI teacher training from a social constructivist and interactionist perspective. The data and analysis presented here provide evidence of the contribution of these frameworks for understanding how EMI teacher training actually occurs. By offering a view into the "nitty-gritty" of EMI teacher training, it provides unique findings as to how EMI teacher development is accomplished – made visible and co-constructed – in interaction.

On one hand, the findings reveal existing language ideologies in relation to models of teaching and learning, as well as the repercussions such ideologies may have for how EMI is conceptualized and performed.

The findings also reflect significant reinterpretation of the originally planned teacher training process and the roles of the participants, as well as the co-construction of participation frameworks which, at the onset of the process, do not facilitate interdisciplinary collaboration.

Comparative analysis of both language ideologies and participation frameworks at the beginning and end of the professional development process suggests the transformative potential of the process.

Another major finding involves the significant and varied roles of material artefacts throughout the EMI teacher development process, including the role of material artefacts in the interactional co-construction of EMI expertise.

Finally, this dissertation develops a theoretically-derived heuristic tool for the study of the interactional accomplishment of EMI expertise and its application to interactional data collected during the study. This tool is presented as a working

hypothesis and as a first approximation to the conceptualization of the interactional accomplishment of EMI expertise, as an aid to future interactional research in this area.

Chapter 1

Introduction to EMI teacher professional development

This dissertation presents a case study of a teacher training process for English medium instruction (henceforth, EMI) from a naturalistic, sociocultural perspective. As such, the professional development process is conceptualized as a complex, dynamic multi-layered phenomenon which cannot be studied in isolation from the cultural and historical contexts within which it is situated. Examination of the EMI teacher training process therefore includes the political, economic and social contexts which influence (and are influenced by) its development. For this reason, the theoretical and historical roots of EMI are presented in Section 1.1 of this chapter. A first part of Section 1.1 is dedicated to the theoretical roots of integrated approaches to the learning of content and language, the historical predecessors of EMI. A second part of Section 1.1 presents three educational approaches which arose in primary and secondary education and which served as historical precedents for EMI and related approaches to English language instruction in higher education (henceforth HE). In this way information is provided to contextualize the subsequent explanation of EMI and professional development for EMI, the context of the research presented in this dissertation.

Section 1.2 of this introduction is dedicated to English language instruction in higher education and begins with a historical overview of this phenomenon and the factors behind its development. Three modes of English instruction in tertiary education are presented: English for Academic Purposes (EAP), English for Special Purposes (ESP), and Integrated Content and Language Learning in Higher Education (ICLHE). Section 1.3 focuses on English medium instruction (EMI), including the conceptualization of and theoretical approaches to it, and trends and challenges in its development. Section 1.4 is dedicated to professional development for EMI, the focus of this dissertation. In this

section, motivations behind and trends in EMI teacher development are presented, along with an overview of existing research on EMI professional development. Gaps in the existing body of evidence regarding EMI professional development are identified, followed by a presentation of the current research in section 1.5.

1.1 Roots of English medium instruction

1.1.1 Theoretical foundations of integrated approaches to language learning

Integrated approaches to language learning that arose between the 1960s and the 1990s in primary and secondary education can be considered as the antecedents of EMI in European higher education. Although they emerged in different social, cultural and historical contexts, these approaches are similar in that they all combine the integration of the study of academic content with the use and learning of an additional language. This orientation reflected an important shift away from previously existing educational perspectives that included the isolated teaching of content subjects and language subjects. Sociocultural theory and social semiotics laid the theoretical foundation for the development of these educational approaches and therefore this subsection is dedicated to a brief overview of these theories as they relate to language learning.

The foundations of sociocultural theory can be traced to the writings of the Russian psychologist, Lev Vygotsky (1978; 1986). Lantolf, Thorne and Poehner (2006) provide an extended discussion of Vygotsky's theoretical contributions to the study of second language acquistion, which include the notions of mediation, regulation, internalization and the zone of proximal development. Sociocultural theory (SCT) proposes that human mental function is a mediated process that is organized by cultural artifacts, activities, and concepts (Lantolf, Thorne & Poehner, 2006). According to this framework, humans create and use cultural artifacts to regulate their biological and

behavioral activity. One of the most important of these cultural artefacts is language. Language use, organization, and structure are primary means of mediation in the development of mental function, which takes place through participation in cultural, linguistic, and historically formed settings. As explained by Lantolf, Thorne and Poehner (2006), "the most important forms of human cognitive activity develop through interaction within these social and material environments" (p. 197). Within the learning sciences, Vygotsky's work is associated with the development of social constructivist learning theory. Social constuctivist learning theory emphasizes the collaborative nature of learning. Vygotsky (1978) argued that all cognitive functions originate in – and must therefore be explained as products of – social interactions:

> Every function in the child's cultural development appears twice: first, on the social level and, later on, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals. (p. 57)

Vygotsky's theory of social learning has been expanded upon by numerous later theorists and researchers. The application of sociocultural theory to second language acquistion was fundamental to the development of sociocultural linguistics. Sociocultural linguistics emphasizes the interrelation between language and thought as well as the interdependence of language, culture, and society. The application of sociocultural theory for understanding language acquistion thus reflects the interdependence between linguistic activities and the sociocultural and historical contexts within which such activities take place. Thorne (2000) notes: "[l]anguage patterns of some durability are the sedimented product of historical and sociocultural activity, which in part structure current contexts,

and reciprocally, such contexts in turn co-structure interactional and communicative practices (p. 237).”

Recognizing the interrelation of sociocultural context and language, and that the individual’s linguistic and communicative practices are shaped by sociolinguistic context, sociocultural theory concludes that language and context cannot be treated in isolation. As stated by Cammarata (2010): “Operating within the sociocultural theoretical framework implies a broadening of the definition of language, calling for the adoption of a view of language and its use in context” (p. 92).

Aside from sociocultural theory, theories of social semiotics also influenced the development of content and language integrated approaches. Theories of social semiotics (Halliday, 1978; Hodge & Kress, 1988) address how messages are used and exchanged within social groups, focusing on meaning-making as a social practice. These theories consider individuals as agents in the meaning-making process and imply that context is central to any meaning-making activity. Language is viewed as a meaning-making system, an integral part of identity and a shaper of reality. The recognition of the learning potential of language in use is associated with these notions of social semiotics.

Drawing from the perspectives of sociocultural theory and social semiotics, in content and language integrated learning approaches (see Section 1.1.2) language is inseparable from its context and is taught through meaningful communication in the activity of learning subject content. Curriculum design involves the integration of language and content learning objectives, and the purposeful use of language for meaningful communication. The underlying hypothesis is that language is acquired through communication, rather than by the conscious learning of rules and examples. In the following subsections three language learning approaches which are founded on this theoretical perspective are presented.

1.1.2 Content and language integrated approaches

Three education approaches are commonly considered to be the historical antecedents of EMI in European higher education. They are: bilingual immersion, content-based instruction (CBI), and content and language integrated learning (CLIL). Although debate exists as to whether immersion, CBI and CLIL actually refer to distinct didactic phenomena (Cenoz, Genesee & Gorter, 2014; Cenoz, 2015; Dalton-Puffer, Llinares, Lorenzo & Nikula, 2014; Genesee & Lindholm-Leary, 2013; Lasagabaster & Sierra, 2009; Tedick & Cammarata, 2012), in the interests of clarity, they are presented separately. Bilingual immersion is discussed in subsection 1.1.2.1. Subsection 1.1.2.2 discusses Content Based Instruction (CBI) and subsection 1.1.2.3 focuses on Content and Language Integrated Learning (CLIL).

1.1.2.1 Bilingual immersion programs

Immersion programs were first introduced in Canada in 1965 with the St. Lambert experiment, in which English-speaking students received content instruction in French. Coyle, Hood and Marsh (2010, p. 7) affirm that Canadian immersion arose in response to the need to strengthen national unity between French and English speakers within the context of a movement for an independent Quebec. The Official Languages Act (1969) declared the co-official status of French and English and was also influential in the development of French Immersion programs for majority language English-speaking students. Immersion has been defined as:

> a form of bilingual education that aims for additive bilingualism by providing students with a sheltered classroom environment in which they receive at least half of their subject-matter instruction through the medium of a language that they are learning as a foreign, heritage, or indigenous language. (Lyster, 2007, p. 8)

As a strand of bilingual education, in immersion programs students receive subject-matter instruction through both the medium of the majority language in the community and the target language they are studying. The term “additive” refers to the fact that the objective of the bilingual program is to develop and maintain competency in both languages, as opposed to the development of competency in only one languge, as is proposed in so-called “subtractive” bilingual immersion. Learning occurs in a “sheltered” classroom environment in which the subject teacher provides the necessary assistance to ensure student comprehension of content-area material taught in the medium of the target language. The target language may be an additional language not in use in the community or a language spoken within specific subgroups of the community.

A distinction can be made between one-way and two-way (dual) bilingual immersion programs. One-way bilingual immersion programs involve a student population of majority language users who receive content instruction in a minority language. Canadian immersion programs initially involved one-way immersion in which English-speaking students received content instruction in French. Two-way (or dual language) bilingual immersion programs, developed later in the USA, target a combined student population of language majority (for example, English-speaking) and language minority (for example, Spanish-speaking) students. These programs aim at developing majority language speakers’ competence in the minority language (Spanish, in the case of the USA) while simultaneously supporting minority language speakers’ learning of English, the majority language.

As stated previously, the introduction of bilingual immersion programs involved a shift in the organization of language education. Unlike traditional education programs in which content subjects and additional language subjects were taught separately, immersion implied an integrated instructional approach which involved instruction of

content subjects in the target language. As stated by Cammarata and Tedick (2012), the integration of content and language is "(f)undamental to the curriculum of immersion programs" (p. 251). Bilingual immersion programs aim to develop bilingualism and biliteracy, academic achievement, and intercultural understanding.

Although Catalan immersion programs were influenced by the model of Canadian immersion, they arose in a different socio-political context. During the Spanish dictatorship from 1939 to 1975, public use and instruction in the local language of Catalan was prohibited in the regions of Catalonia, Valencia and the Balearic islands. Similar prohibition of the Basque language occurred in the regions of the Basque country and Navarra and the Galician language in Galicia. The Spanish Constitution of 1978 declared Spanish the official language in the Spanish State and allowed other languages to be declared co-official in the different autonomous regions. In Catalonia, the Statute of Autonomy (passed in 1979 and reformed in 2006) granted co-official status to both Catalan and Spanish, while defining Catalan as the "own language" of the region. With the return of democracy, immersion programs were developed in Catalonia, the Basque country and later in Galicia to recuperate the use of the regional languages (see Cots, 2013; Fortanet-Gomez, 2013; Moore, 2016; Nussbaum, Moore & Borràs, 2013 for a more thorough analysis of post-Franco development of Catalan immersion programs). As explained by Llurda, Cots and Armengol (2013, p. 204), the decentralization of power which accompanied the return to democracy delegated to the Catalan autonomous government the authority to develop its own language planning. In Catalonia, immersion programs include academic instruction in Catalan and support the simultaneous development of the majority language, Spanish. As stated by Llurda, Cots and Armengol (2013):

> The language policy in Catalonia is not intended as a shift to Catalan monolingualism and has openly declared its ultimate goal to be the protection of both Catalan and Spanish, and the promotion of the use of Catalan at all levels of society. (p. 204)

The promotion of the increased use of Catalan, the minority language, has been successful in primary and secondary education, where Catalan is the primary medium of instruction and to a lesser extent in tertiary education, where instruction in Catalan has been reported in approximately 60% of subjects (Cots, 2013; Fortanet-Gomez, 2013).

Research regarding immersion has generally concluded that it is a feasible approach with proven benefits in terms of language learning. In reference to Canadian immersion, Lyster (2017) summarizes two positive outcomes as:

> (F)irst, students' L1 development and achievement in subjects taught in the L2 are similar to (or better than) those of non-immersion students, and second, they develop much higher levels of L2 proficiency than do non-immersion students studying the L2 as a regular school subject. (p. 8)

This assessment is echoed by Cammarata and Tedick (2012), who indicate that the benefits of immersion are well-documented for both language majority and language minority students. According to these authors research has also revealed that one-way immersion students have better non-verbal problem solving skills and greater cognitive flexibility. For language minority learners, on the other hand, two-way immersion seemed to be more effective, as language minority students involved in two-way immersion outperformed peers that received English-only instruction.

Despite these positive results, questions have been raised regarding immersion, many of which are also relevant to EMI, the focus of this dissertation. On one hand, experts disagree as to what level of instruction is required for the designation of an

educational program as immersion. For example, according to Cammarata and Tedick (2012), immersion programs at the secondary level can include instructional use of the immersion language to teach content in only two subjects out of the entire curriculum, whereas in some parts of the world, the term immersion is only applied when 50% or more of subjects are taught in the target language. Language learning results from immersion programs with 50% or more of instruction in the target language might logically differ from those of programs in which only a few subjects are taught in the target language. When extrapolated to the context of EMI in university education, similar questions can be raised, as will be discussed in more depth in Section 1.3.

Questions have also been raised regarding the purported benefits of the clear separation of teacher use of one language versus another for sustained periods of time. The monolingual approach has been challenged by scholars who recognize the value of plurilingual[1] strategies such as codeswitching, translanguaging or translation to support learning in immersion environments (Garcia & Wei, 2014; Creese & Blackledge, 2010; Moore, Nussbaum & Borràs, 2013). Similar doubts have been raised in EMI settings in higher education. Moore (2016) has examined national and regional legistlation, institutional policy and local classroom practices in two multilingual Catalan universities, finding that despite regional and institutional policies which supported monolingual approaches to English medium instruction at university, local practices which included codeswitching or translanguaging were more beneficial to student learning.

Although the benefits of immersion are well-documented (Cammarata & Tedick, 2012), questions remain regarding both language and content learning of immersion students. On one hand, students in immersion programs exhibit gaps in language

[1] In line with European usage (e.g. in the CEFRL), Nussbaum, Moore, and Borràs (2013, p. 232) make a distinction between 'multilingualism (state, geographical area or institution where two or more languages are co-official in policies or co-exist in society) and plurilingualism (effective practices between individuals in two or more languages)'.

proficiency, achieving high levels of receptive skills while productive skill levels lag behind. On the other hand, concerns exist regarding the teaching of advanced level subject matter if students' language proficiency impedes engagement with more complex academic content. As will be discussed in Section 2, similar questions are raised regarding related instructional approaches in higher education settings.

1.1.2.2 Content-based instruction

Brinton, Snow and Wesche (1989) define content-based instruction (CBI) as, "the concurrent study of language and subject matter, with the form and sequence of language presentation dictated by content material" (p. vii). Although CBI is frequently associated with educational approaches implemented in the United States in the 1970s and 1980s, the origin of CBI can be traced to the Canadian experiment with French immersion. Cammarata (2010) explains "CBI is, in fact, credited as one of the main ingredients that explain the success of language immersion education" (p. 90). In CBI, content subjects are taught through the medium which students are learning as an additional language, and language is learned through meaningful communication in the study of subject content. Curriculum design in CBI is meaning-based, integrating language and content learning goals. CBI is based on the hypothesis that language is acquired through communication, rather than by the conscious learning of rules and examples.

It has been suggested that CBI is an umbrella term for a variety of educational initiatives that integrate language and content learning aims (Stoller, 2008). Genesee and Lindholm-Leary (2013) take a similarly broad view of CBI, suggesting that alternative forms of CBI depend on educational level, the organisation of the curriculum and the relative emphasis on language or content. With respect to level of education, CBI has been implemented in preschool, primary, secondary or higher education levels. Regarding

its role in the curriculum, it can range from total immersion, in which approximately 90% of instruction is carried out in the second language, to limited language exposure through content-based themes in language classes. An approach to understanding the variability in emphasis on content or language is provided by Met (1998), who developed a continuum of content and language integration that ranges from the most content-driven end, which is total immersion, followed by partial immersion, to the most language-driven end, which involves language classes with frequent use of content and theme-based courses. In all cases, the aims of CBI combine the learning of curricular content and language learning and language is used for purposeful communication.

1.1.2.3 Content and language integrated learning

Coyle, Hood and Marsh (2010) define content and language integrated learning (CLIL) as "a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language" (p. 1). CLIL arose in Europe in the 1990s in the midst of European policy decisions aimed to create multilingual citizens. In this context, the European Commission's (1995) white paper, *Teaching and Learning: Towards the Learning Society,* recommended that every EU citizen be able to use three Community languages (after completion of secondary school). Since then, CLIL has been featured in a series of European language policy declarations (European Commission, 1995; 2003; 2008) and invested with a major role in the accomplishment of the Union's language learning goals (Dalton-Puffer, 2011). By 2006, the Eurydice Report, *Content and Language Integrated Learning (CLIL) at School in Europe*, declared "CLIL type provision is part of mainstream school education in the great majority of countries at primary and secondary levels" (Eurydice, 2006, p. 13).

Although CLIL has frequently been referred to as an umbrella term used to describe a variety of initiatives, generally it is agreed that CLIL refers to programs or classes that incorporate an integrated approach where both content and language are the focus of instruction, with varying emphases on content or language learning goals (Escobar Urmienta, 2019). The diversity of CLIL programs reflects the fact that they are subject to contextual contingencies and are adapted to meet the local needs of the instructional context. CLIL programs may range from early total, early partial, or late immersion programs, or simply include modules taught in the target language within content subjects. Although initially the term CLIL was applied at all levels of education, more recently CLIL has been used to refer to pre-primary, primary or secondary schooling (Dafouz, 2018, p. 543).

The heterogeneity in the didactic approaches that fall within the category of CLIL has been pointed out as a barrier to emprically-based development, as a broad conceptualization of CLIL limits possibilities of comparison or generalization of study findings, limiting its practical or theoretical utility (Cenoz, Genesee & Gorter, 2014). Dalton-Puffer, Nikula and Smit (2010) have further pointed out that the term CLIL "has acquired some of the characteristics of a brand name, complete with the symbolic capital of positive description: innovative, modern, effective, efficient, and forward-looking" (p. 3), a fact which may explain the widespread application of the term to educational projects by researchers, administrators, teacher educators and teachers (Cenoz, Genesee & Gorter, 2014).

Considerable debate has occurred regarding the similarities and distinctions between CBI and CLIL. Tedick and Cammarata (2012) point out distinctions, including the fact that CLIL was developed much later than CBI and in the context of European educational reform. In a critical analysis of CLIL, however, Cenoz, Genesee and Gorter

(2014) point out that “CLIL’s origins in Europe might make it historically unique. This does not make it pedagogically unique” (p. 244). Indeed, these authors argue that CBI and CLIL have similar goals, are addressed to similar student profiles, and do not differ with respect to the target languages, balance between content and language, or pedagogical approach. Despite these claimed similarities, unlike CBI, CLIL has had worldwide impact on education, perhaps, as implied above, due to its social capital as a brand name.

In summary, this section has presented three approaches to integrated instruction of content and language in primary and secondary education, along with some basic notions of their theoretical foundations. This information is presented in order to contextualize the subsequent development of similar approaches in tertiary education. Although content and language integrated approaches in higher education arose in a different cultural and historical context than the initiatives described in this subsection, questions regarding the design, implementation, and outcomes of immersion, CBI and CLIL are also relevant to integrated instruction of content and language in HE, as will be seen in the following section.

1.2 English language instruction in higher education

The historical and cultural contexts within which EMI in higher education has developed are presented here. The historical development of higher education is summarized, with an emphasis on events in the second half of the twentieth century and factors which have played a role in the incorporation of English as a medium of instruction in HE. This is followed by an overview of alternative modes of English instruction which have developed within tertiary education, and include English for specific purposes (ESP), English for academic purposes (EAP) and integrated content and language learning in

higher education (ICLHE). This information is provided in order to situate EMI within the the general field of English language instruction in tertiary education. English medium instruction (EMI), the context of this dissertation, is presented separately, in Section 1.3.

1.2.1 Historical overview of English instruction in higher education

Although instruction in an additional language was presented in the previous section as it materialised in the previous century, the reality is that it is a practice that has existed for centuries, if not millennia. In ancient Rome, Greek was used as the language of instruction, whereas throughout the Middle Ages, Latin was the medium of instruction of university studies directed at the education of a reduced number of elite social groups. Major shifts toward the democratization of higher education were accompanied by a sharp rise in the number of higher education institutions worldwide in the second half of the twentieth century, many of which offered instruction in the local language (see Altbach, 2004 and Schofer & Meyer, 2005 for more extensive discussion of the historical development of higher education). Worldwide trends toward the globalization of higher education in the late twentieth century, the increased presence of international students in European universities and European policy decisions involving internationalization of higher education institutions subsequently led to the expansion of English medium instruction in European higher education (Altbach & Knight, 2007; Coleman, 2006). These phenomena are discussed in more depth in Section 1.2.2.

1.2.2 Factors behind instruction in English in tertiary education

In this section, principal factors behind the development of instruction in English in higher education are discussed. A first part presents the overarching political, economic and social drivers of globalization and internationalization. A second part presents a brief

summary of European, Spanish and Catalan language policies and legislation relevant to the increasing presence of instruction in English in tertiary education.

1.2.2.1 Globalization and internationalization

It has been suggested that the growing incorporation of English instruction in higher education has occurred in response to the forces of globalization and internationalization (Altbach & Knight, 2007; Coleman, 2006). Globalization, comprised of the broad economic, technological, and scientific trends of the beginning of the 21st century, is characterized by the compression of chronological and geographical distance, effects on diversity through intensified trade and communication, and new social relationships marked by reduced local power and influence (Coleman, 2006, p. 1). The effects of globalization are are largely inevitable and they impact directly on the use of English in higher education. As summarized by Coleman (2006):

> Ever wider use of English is promoted through economic, political and strategic alliances, through scientific, technological and cultural cooperation, through mass media, through multinational corporations, through improved communications, and through the internationalization of professional and personal domains of activity. (p. 2)

Whereas globalization involves societal changes, internationalisation "includes specific policies and programmes undertaken by governments, academic systems and institutions, and even individual departments or institutions to cope with or exploit globalisation" (Altbach, 2004, p. 6). This distinction is important because, although the influence of globalization is inevitable, tending to reinforce and accentuate existing inequalities, internationalization is voluntary and open to interpretation. As suggested by Altbach (2004):

> Internationalization describes the voluntary and perhaps creative ways of coping. With much room for initiative, institutions and governments can choose the ways in which they deal with the new environment. While the forces of globalisation cannot be held completely at bay, it is not inevitable that countries or institutions will necessarily be overwhelmed by them or that the terms of the encounter must be dictated from afar. (p. 6)

Internationalisation thus involves a significant degree of autonomy. University plans for internationalization generally incorporate English instruction as a way to encourage student mobility and research collaboration across borders, yet critical scholars who have reflected on these plans also indicate other influencing factors, which they associate with the commodification of higher education. From this perspective, internationalization responds to the desire to increase institutional ratings on world university rankings, to attract fee-paying international students, to provide added value for local students (to enhance employability), aside from increasing students' professional competency in a globalized world, and encouraging international research collaboration and dissemination. Interestingly, from this perspective Coleman (2006) points out that, "Foreign language learning in itself is NOT the reason why institutions adopt English medium teaching" (p. 4).

1.2.2.2 Language policy and legislation relevant to the rise in English instruction in the study context

This subsection explores language policy and legistlation relevant to the incorporation of instruction in English in HE in the context of the study. It begins on a broader scale with a presentation of European language policy and legistlation, followed by relevant Spanish government policy and legistlation, and ends with an overview of legistlation and

policy decisions taken by the Catalan government which are relevant to the incorporation of EMI in HE in this context.

European policy decisions have had a decisive influence on the incorporation of instruction in English in higher education. These include the Bologna declaration on the European space for higher education, the implementation of which is referred to as the Bologna process, and the establishment of the European Higher Education Area (EHEA), both of which are discussed briefly here.

In 1999 the Bologna declaration established objectives for a unified European higher education that aimed to prepare a competitive labour force. Relevant objectives included, among others:

- The adoption of a common framework of degrees;
- The introduction of undergraduate degrees of three years' length;
- The elimination of obstacles to free mobility of students and teachers.

The Bologna declaration affected the incorporation of English instruction in tertiary education in at least two ways. On one hand, the incorporation of content instruction in English was supported as a way to reduce linguistic obstacles to the free mobility of students and teachers, with English serving as a common lingua franca in internationalized university education. On the other hand, the introduction of a reduced number of credits taught in undergraduate programs led to a need to prioritize and eliminate subjects from degree programs. The incorporation of EMI was supported by some university administrators who viewed EMI as an efficient alternative to the teaching of separate content and academic English subjects.

Ten years after the Bologna declaration, the EHEA was established in March of 2010. The EHEA set new objectives for European universities aimed to: attract international students; enhance the world rankings of European universities; develop

economic and cultural collaboration with other countries and foreign companies by facilitating training placements abroad; promote academic, research and professional networking; and develop intercultural skills among the European population. As with the Bologna declaration, the EHEA goals of encouraging mobility and international collaboration and the desire to attract international students all served as positive forces for the incorporation of instruction in English in European higher education.

Within the territory of Spain, the Spanish government strategy for internationalization of the higher education system developed in 2014 (MECD, 2014) is relevant to current development of content instruction in English. As indicated by Dafouz (2018):

> In an attempt to build a strong and internationally attractive university system the Spanish policy goal is that one-third of all degree programs be offered in English by 2020. In this way the Spanish government aims to increase possibilities for staff and student mobility, internationalize research activities, and promote the use of Spanish among non-Spanish speakers. (p. 544)

Although Dafouz (2018) admits that achievement of this strategic goal is unlikely, she does suggest that it has provided an impetus for the clear increase in the number of international students and of EMI programs in Spain over the last several years.

In Catalonia a series of Catalan laws and policies have been influential in the incorporation of English instruction in HE. Moore (2011; 2016) provides a thorough analysis of relevant Catalan language policy and legislation, a summary of which is presented here. As mentioned previously, in the discussion of immersion in Catalonia in Section 1.1.2.1, the Statute of Autonomy (passed in 1979, reformed in 2006) granted co-official status to both Catalan and Spanish, while defining Catalan as the “own language” of the region. The Statute, together with the current Language Policy Act in Catalonia

(*Llei 1/1998, de 7 de gener, de política lingüística*), established that Catalan should be the default language in public institutions, including universities. In anticipation of increased internationalization of Catalan higher education, however, the language policy act also included a provision by which universities could establish specific criteria for using languages besides Catalan and Spanish in their teaching activities, thus providing for the possibility of incorporating EMI in Catalan university curricula. Governmental recognition of the importance of English, along with other languages, is reflected in the most recent language-planning document in Catalonia (*Pla de política lingüística per a la VIII legislatura*). This document recommends that citizens gradually acquire functional competences not only in the co-official languages, but also in English and other foreign languages.

Regarding the higher education context, the current universities act (*Llei 1/2003, de 19 de febrer, d'universitats de Catalunya*) states that universities should promote the learning of foreign languages amongst their members and encourages recruitment of students from outside Catalonia. Since the 2014/2015 academic year, Catalan government university policies also require that all new university students officially certify a B2 level (*Common European framework of reference for languages* or CEFRL) in a "third" language – defined as English, French, German or Italian – in order to graduate from their bachelor degree studies. Although B2 certification in languages other than English is accepted, in practice English is the principal language supported by the public administration and universities. This governmental policy recommendation places pressure on students with lower English competency levels to achieve adequate overall general English competency levels in order to graduate. In some instances, this policy may also indirectly influence the incorporation of EMI, particularly if administrators operate on the belief that student exposure to lectures delivered in English can have a

positive effect on general English competency and skills. Current resistance of students and university administrators to this policy has been accompanied by a series of moratoria of the date of initiation of enforcement.

Finally, as mentioned by Moore (2016), funding arrangements for Catalan universities also affect the incorporation of instruction in English, as financial policy links the amount of public funding received by universities to the plurilingual competences of teaching staff as well as to the amount of teaching done in Catalan and in "third languages" (i.e. English) (*Bases per a l'aplicació del finançament per objectius de les universitats públiques catalanes, 2008-2010*). Such policy also creates financial incentives for the incorporation of instruction in English within the curricula of Catalan universities seeking public funding.

As can be seen, the pressures on HE institutions and teaching staff for the incorporation of instruction in English can be traced to a multitude of global and locally-determined sources. Such pressures can translate into top down policy and planning, resulting in the creation of tensions, as will be discussed in Section 1.4, and which is visible in the data presented in Chapters 5 and 6 of this dissertation.

1.2.3 Modes of English instruction in tertiary education

In order to place EMI within the context of English instruction in HE, three different modes of English instruction which are implemented in tertiary education are presented in this section. They are English for specific purposes (ESP), English for academic purposes (EAP) and integrated content and language learning in higher education (ICLHE). EMI, the focus of the training process studied in this dissertation, is presented separately in Section 1.3.

The teaching of discipline-specific language and academic communicative skills in English in higher education has traditionally been carried out in isolated English subjects and programs taught by English language teaching specialists. These subjects are English for specific purposes (ESP) and English for academic purposes (EAP). English for specific purposes subjects focus on discipline-specific language, aiming to teach the language the learners need to communicate effectively in their work or study areas (Basturkmen, 2010). English for specific purposes aims to prepare students to participate in their professional communities by aiding them in understanding and decoding the language of their discipline. Along with discipline-specific lexis and other linguistic features, students are introduced to the generic conventions of their discipline. Teaching of genre in ESP is largely based on the genre analysis conducted by Swales (1990) and Bhatia (2014), who identified generic and rhetorical moves in professional discursive practices. The emphasis on the use of authentic teaching materials which reflect language use in the professional world is one of the major premises of the ESP approach.

English for academic purposes (Hyland, 2006), developed posteriorly to ESP and considered by some authors as a subspecialty of ESP, introduces students to different academic communication and study skills in English. English for academic purposes courses were initially aimed at students entering university to help them develop academic English skills such as note-taking, giving presentations, participating in discussions, and reading and writing academic papers, skills which are necessary to ensure academic success in tertiary education contexts.

Some authors (Arnó-Macià & Mancho-Barés, 2015; Schmidt-Unterberger, 2018) express concerns that the introduction of degree program reforms associated with the Bologna process, along with an increase of content subjects taught in English by content specialists (EMI), may pose a threat to exisiting ESP and EAP subjects and courses. The

Bologna process involves a reduction in the number of European course credits (ECTS) taught in undergraduate programs. In order to conform with the reduction in ECTS and contact hours, degree programs have been obliged to eliminate subjects considered to be of lesser importance for the students' professional training. With the increasing incorporation of EMI subjects in degree programs, Schmidt-Unterberger (2018) argues that ESP and EAP may be threatened, particularly if program administrators assume that students will acquire the necessary disciplinary discourse and academic literacy skills in English through subjects taught in English by content experts. As will be seen in the discussion of EMI in Section 1.3, in reality content subjects taught in English at university very rarely include language learning objectives and research has shown that content experts do not perceive themselves as capable to teach language skills and knowledge (Airey, 2012; Cots, 2013; Fortanet-Gomez, 2012).

Aside from ESP and EAP, at the tertiary education level English instruction is also carried out in so-called integrated content and language learning in higher education, or ICLHE. Integrated content and language instruction in tertiary education was incorporated on a widespread scale at the University of Mastricht and has been the focus of an increasing body of research since the year 2000. Two conferences in Maastricht (Wilkinson, 2004; Wilkinson & Zegers, 2007) led to the coining of the term ICLHE and the founding of an association under this acronym. Within the context of higher education, ICLHE is generally used to refer to subjects with both explicit language learning and content learning goals. ICLHE subjects are designed and taught by English language teaching experts with knowledge regarding EAP and ESP as well as subject content, or alternatively in collaborative initiatives involving both content and English language teaching specialists. The language learning objectives of ICLHE involve teaching discipline-specific professionally-related discourse and academic English language skills.

Language instruction in ICLHE therefore draws from the fields of ESP and EAP, aiming to facilitate students' integration into their increasingly international professional communities by developing their professional discourse in English. Like ESP, ICLHE focuses on discipline-specific language and terminology and students are introduced to the generic conventions of their discipline in English. Authentic materials in English are used, but may be introduced in a stepwise fashion or adapted to facilitate content and language learning. Similar to EAP, ICLHE students practice different academic communication and study skills in English, which may include note-taking, giving presentations, participating in discussions, and reading and writing academic papers. This type of instruction in English at the tertiary education level differs from EMI, which is taught by content specialists and normally only has explicit content learning goals, as will be explained in more depth in Section 1.3. Some authors (e.g. Schmidt-Unterberger, 2018) suggest that the significant investment of time and effort involved in the development of ICLHE makes it an almost-impossible venture, suggesting that alternative approaches to the teaching of academic English and professionally-related English knowledge and skills are more feasible, as will be discussed in section 1.3.2.

1.3 English medium instruction

1.3.1 Conceptualizations of EMI

In a report on a global survey of EMI programs in 55 countries in 2013, Dearden (2014) defines EMI as "(t)he use of the English language to teach academic subjects in countries or jurisdictions where the first language (L1) of the majority of the population is not English" (p. 4). This same author outlines significant differences between between EMI and CLIL, which was introduced previously in Section 1.1.2.3:

> Whereas CLIL is contextually situated (with its origins in the European ideal of plurilingual competence for EU citizens), EMI has no specific contextual origin. Whereas CLIL does not mention which second, additional or foreign language (L2) academic subjects are to be studied in, EMI makes it quite clear that the language of education is English, with all the geopolitical and sociocultural implications that this may entail. Whereas CLIL has a clear objective of furthering both content and language as declared in its title, EMI does not (necessarily) have that objective. (Dearden, 2014, p. 4)

Universal agreement as to what EMI entails does not exist. In a recent systematic review of research on EMI in higher education, Macaro et al. (2018) observe that, among the studies included in their review, there was no widely accepted standardized definition of the term EMI, and that the phenomena which were labelled as EMI varied in many aspects. The diversity in the conceptualization of EMI is also cited by other scholars (Dearden, 2014; Doiz, Lasagabaster & Serra, 2013), and debate exists regarding many aspects related to the conceptualization of EMI. Questions range from the type of English to be used, the use of languages other than English in the EMI classroom, the minimum amount of instruction in English which should be included in an EMI curriculum, and the sociolinguistic context within which EMI is carried out. These questions are examined in more depth here.

Questions regarding the level and the type of English which should be used in EMI have been raised. Although some institutions require lecturers to have a C1 level on the CEFRL, there is no general agreement as to whether lecturers' English must be native-like. As EMI lecturing involves communicative situations among persons whose first language is not English, some authors suggest that communicative features of English associated with English as a lingua franca (House, 2003; Seidelhofer, 2001) may be

sufficient. Such conceptualizations admit variable speaker proficiency, permit negotiation of meanings, allow and encourage explicitation strategies, and may in fact, be more effective in accomodating to student needs.

Conflicts also exist regarding the incorporation of languages other than English in EMI practices. Despite the persistence of practices which indicate underlying monolingual conceptualizations of EMI based on the exclusive use of English (Ploettner, 2019), some researchers (e.g. Moore, 2016) suggest that the admission of plurilingual practices involving codeswitching in the classroom, or the implementation of bilingual systems of assessment (van der Walt & Kidd, 2013) can facilitate learning and equitable assessment.

As discussed in Section 1.1.2.1 in reference to immersion programs, debate exists as to the amount of English instruction required to label a program as EMI. In some programs only individual lessons or subjects are taught in English, whereas in other EMI programs English is the only medium of instruction.

Finally, an additional question involves the sociolinguistic context in which EMI takes place, as different opinions have been expressed regarding whether the term EMI should only be applicable in contexts where English is an L2 for the general population. Some researchers also apply the term EMI to programs in institutions or educational jurisdictions in which English is commonly used in the general population, but the majority of students have English as a second language.

In summary, a standardized definition of EMI does not exist currently, with doubts remaining about the type and amount of English to be used, the incorporation of plurilingual practices, and sociolinguistic aspects. As is the case with CLIL (refer to discussion in Section 1.1.2.3), the diversity in conceptualizations of EMI is seen by some authors as a hinderance to the development of an empirical base regarding EMI. In the

face of such diversity, theoretical approximations to the phenomenon of EMI have been developed by some scholars. These will be discussed in Section 1.3.2.

1.3.2 Theoretical approaches to the study of EMI

As was stated in the previous subsection, the diversity of programs labelled as EMI, along with a lack of a theoretically grounded approach for the study of EMI has been a significant barrier to comparison of research on EMI across contexts and settings. The ROADMAPPING theoretical framework for conceptualizing EMI in multilingual university settings has been proposed by Dafouz and Smit (2014) as a means of providing such a theoretically grounded approach. The core dimensions constituting the model are derived from sociolinguistic, ecolinguistic, and language policy considerations. Postmodern sociolinguistics (Bloomaert, 2010) contributes important considerations for EMI "as regards the fluidity, complexity, and multifunctionality of English and other languages that academics, students, and administrators draw on for their institutionalized practices" (Dafouz & Smit, 2014, p. 400). Ecolinguistics, the study of language as an integral part of its environment, explores "the relationship of languages to each other and the society in which these languages exist" (Creese & Martin, 2003, p. 161). This perspective contributes to the understanding of the dynamic interrelationship between languages and their academic habitats in tertiary education, where important ecolinguistic factors are the agents (academics, students and administrators), as well as the communicative practices and academic cultures as they are realized locally and within the global context. According to Dafouz and Smit (2014), ecolinguistics provides for:

> a wider, multilayered, and socially aware modelling of (language planning). For instance, when dealing with the (language planning) of a particular higher educational institution, it is paramount to also consider the actual language

> practices that teachers and students are engaging in as well as the potentially different and conflicting communicative and academic aims agents might be pursuing. (p. 401)

Such questions are brought into focus in the context of this dissertation, in which microanalysis of interaction within the EMI teacher training process is framed by a multilayered understanding of language policy and planning which includes the actual language practices that the EMI teacher and student engage in, as well as the local negotiation of the conflicting aims pursued by the agents within this context (see Section 4.4). The dimensions contemplated within ROADMAPPING include: the roles of English (RO), academic disciplines (AD), (language) management (M), agents (A), practices and processes (PP), internationalization and glocalization (ING). Placing discourse at the center of the framework as point of access for analyzing them, the framework offers a means to deal with the complexity and diversity of EMI, and to describe, analyze and compare EMI across contexts and settings.

In other recent work Schmidt-Unterberger (2018) has proposed the English medium paradigm, to focus on the implementation of EMI. This perspective describes five prevalent modes of instruction in English-taught programs in non-Anglophone countries. The modalities include pre-sessional ESP/EAP; embedded ESP/EAP; adjunct ESP; EMI; and ICLHE. Pre-sessional ESP/EAP involves tailor-made courses for a specific program to meet the specific linguistic needs of students before content subject instruction in English begins. Embedded ESP/EAP involves ESP and EAP courses as standard components integrated within English medium programs, while adjunct ESP involves tailor-made ESP classes for specific content courses. EMI involves content experts teaching content subjects in English without an explicit language focus, whereas, Schmidt-Unterberger (2018) applies the term ICLHE to collaborative program and

curriculum design by content and language experts, optionally including joint assessment and team teaching.

Schmidt-Unterberger concludes that while some incidental language learning may take place in EMI, the teaching of discipline-specific discourse in English and academic literacy skills in English is not explicit. On the other hand, she suggests that ICLHE represents an almost-impossible challenge for most higher education institutions, as it requires significant time investment on the part of the teaching staff who collaborate in the planning and implementation of programs or subjects taught in English, including team teaching, shared classroom materials, and the design and marking of joint assessment tasks. As more viable alternatives, she proposes either the pre-sessional, embedded, or adjunct modalities as ways of ensuring that students' disciplinary discourse and academic literacy needs are met when English medium instruction is carried out by content specialists. This position is also voiced by other ESP specialists (Arnó-Macià & Mancho-Barès, 2015), who have indicated the limitations of EMI, suggesting the continuing need for explicit ESP and EAP instruction in university settings where content is taught in English by content specialists.

Within this paradigm, the teacher training partnership presented in this dissertation could potentially be classified as an attempt at the 'almost-impossible' task of ICLHE as it involved joint collaboration for the preparation of EMI. The collaborative process aimed to support the immediate goal of preparing EMI lessons with an overarching goal of developing the content specialist's expertise in EMI. Language-related issues, such as the use of codeswitching in the classroom, are made relevant in the process. Activities relevant to EAP and ESP are observed in the data. These include the preparation and presentation of a scientific poster in English or the preparation of an explanatory heading of an image for a laboratory report, tasks which focus on both

disciplinary-specific genres and terminology in English. Although the difficulties signalled by Schmidt-Unterberger (2018) are reflected in the analysis of data collected at the micro-level in this dissertation, the feasibility and benefits of such collaborative projects are also suggested by analysis of the data, as will be seen in Chapter 9.

1.3.3 Global and European trends in EMI

While researchers and scholars express differences regarding the characteristcs of EMI and what exactly can be included under the umbrella term of EMI, it is generally agreed that the incorporation of EMI in higher education is a growing global phenomenon. In Dearden's (2014) previously mentioned global survey regarding EMI carried out in 2012-13 in 55 countries, respondents (university teachers) reported that EMI was allowed in 72% of private universities and 90% of public universities. The results of a recent systematic review of research which reports on EMI from around the world (Macaro et al., 2018) also reflect the rising incorporation of EMI in higher education globally.Although research published in languages other than English may be underrepresented in English-dominated databases (see Gazzola, 2012, for a discussion of bibliometric indicators as a tool for research evaluation in Italy, language of publication and implicit language policy), the number of publications produced in different regions of the world may give some orientation as to where growth of EMI in HE is particularly notable. Of 83 studies regarding EMI in higher education, 33 were carried out in European contexts, 31 in Asia, 17 in the Middle East, while only one study from South America was retrieved. This seems to suggest that growth of EMI in higher education is greater in Europe, Asia, and the Middle East, while incorporation in South American higher education appears to be less frequent.

On a European scale the growth of EMI has been documented through repeated surveys of European EMI programs by Maiworm and Wächter (Maiworm & Wächter, 2002; Wächter & Maiworm, 2008; 2014). Whereas an initial survey in 2002 of HE institutions in 19 European countries showed that only 2 to 4% of all programs were taught exclusively in English, a followup survey in 2007 in 27 European countries reflected a 229% increase in the number of English-taught programs, mainly in Netherlands and Nordic countries. A third survey, reported in 2014, again revealed a clear increase in European English taught programs, with a 239% growth over the seven-year period from 2007 to 2014. These figures seem to indicate a trend toward the increasing introduction of EMI in European higher education. However, despite this growth, the overall presence of EMI in European HE remains low. As noted by Wachter and Maiworm (2014):

> Despite the remarkable growth of [English taught programs], only a small proportion of students across Europe are enrolled in [English taught programs] (1.3% of total student enrolment in the countries covered, which translates into an estimate of 290,000 students in the academic year 2013/14) (p.17)

In addition, the incorporation of EMI in European higher education is not evenly distributed among all countries. As explained by Doiz, Lasagabaster and Sierra (2011), “While the Netherlands and the Nordic countries feature strongly (the Netherlands, Germany, Finland and Sweden were pioneers), southern European countries such as Italy, Greece and Spain have been slower off the mark” (p. 348).

Within the Spanish context, instruction in English is a relatively recent phenomenon in higher education. In a survey performed in the year 2000 regarding EMI in higher education, of 23 responding Spanish higher education institutions, none reported having English taught programs (Ammon & McConnell, 2002). While initially the

incorporation of EMI mainly occured in masters programs in Spain, current tendencies include the integration of English medium instruction at all levels of HE, including the undergraduate level. In their most recent survey of EMI in HE, Wächter and Maiworm (2014) report that 20% of Spanish HE institutions offered English taught programs. This represents, however, only 2.3% of all Spanish HE programs. In addition, only 0.3% of the entire HE student population in Spain was enrolled in English taught programs in the 2013-14 academic year.

In summary, it can be observed that EMI is a relatively recent tendency in HE. While EMI has been increasingly incorporated in HE worldwide, the geographic distribution of programs seems to be uneven on both a global and European scale. In addition, despite these tendencies, EMI represents a relatively low proportion of total instruction in higher education.

1.3.4 Challenges facing the development of EMI

The urgency with which EMI has been incorporated into university curricula seems to respond to market pressures. Yet studies reflect the fact that institutions are frequently unprepared to confront the challenges posed by the introduction of EMI. A global survey of institutional support for EMI programs (Dearden, 2014) found that:

> In many countries the educational infrastructure does not support quality EMI provision: there is a shortage of linguistically qualified teachers; there are no stated expectations of English language proficiency; there appear to be few organizational or pedagogical guidelines which might lead to effective EMI teaching and learning; there is little or no EMI content in initial teacher education (teacher preparation) programs and continuing professional development. (p. 4)

Thus, questions regarding institutional preparedness to ensure quality EMI remain a significant issue for all social actors responsible for the planning and implementation of the incorporation of English medium instruction at university.

Aside from issues of institutional preparedness, other questions have been raised regarding EMI in higher education; for example, doubts remain regarding whether instruction in English impacts on students' learning of content. One relevant study compares academic results of EMI and non-EMI students (Dafouz, Camacho & Urquia, 2013). The findings seem to indicate that academic results (that is, content learning) of EMI students are not negatively influenced when a subject is taught in English. The difficulty in controlling external factors which may influence academic results warrants caution, however, when interpreting such findings. For example, English language competency levels could be expected to mediate such results. In this case, academic results of student cohorts with low English competency levels might be expected to be more affected than those of their peers with greater English competency when content is taught in English. Kang and Park's (2005) study of 366 Korean students with different English proficiency levels, for example, showed through inferential statistics that the level of proficiency in English impacted on students' ability to understand lectures and whether or not they needed to resort to translated content materials. Vinke (1995) has also compared the content learning of students from EMI and non-EMI classes taught by the same lecturer. In this case, the effect of English proficiency differences was controlled for in the analysis. The students who received instruction in their first language performed significantly better than the EMI group in terms of lecture comprehension. Finally, in a related study, Hellekjaer (2010) compared EMI students' self-reported overall listening comprehension level of EMI lectures and lectures delivered in L1. The students' self-reported listening comprehension was slightly lower for EMI lectures than for lectures

delivered in L1. Based on these results, it would appear that concerns regarding the effect of EMI on content learning may be justified and require further investigation.

Questions also exist regarding the effect of EMI on language learning. Macaro et al. (2018) note that "(The) paucity of language impact studies, coupled with the variability in test instrument types makes any kind of overview assessment of impact extremely difficult" (p.57). As discussed earlier, language is not an explicit focus of EMI, in which content subjects are taught by content specialists, and any incidental language learning will involve professionally-related discourse and academic skills in English, as opposed to general English knowledge and skills. This has implications for assessment of language learning in EMI, suggesting that assessment of language learning should focus on disciplinary-specific discourse and academic skills. Despite these issues, studies regarding the acquisition of general English language skills in EMI have been carried out and have shown positive effects on L2 receptive skills such as listening comprehension (e.g. Yang, 2015; Aguilar & Muñoz, 2014), whereas productive skills are less developed in terms of grammatical accuracy and complexity (Tai, 2015). One recent preliminary study (Walenta, 2018) shows positive results through the incorporation of content-based structured input in conjunction with EMI, but formulae for the explicit teaching of this knowledge and skills alongside content specialist-taught EMI are current areas of exploration (Schmidt-Unterberger, 2018).

Other issues which arise when content is taught through the medium of English at university involve domain loss, that is: "as English strengthens its hegemony over knowledge production and dissemination, local and national languages will become restricted to less prestigious contexts of use, and their very existence may be threatened" (Coleman, 2013, p. xiv). Within the Spanish context, loss of domains of use for other languages is cited as a reason for resistance to EMI in officially bilingual regions where

English is seen as a threat to minority languages, such as Catalan or Basque (Ball & Lindsay, 2013; Cots, 2013; Doiz, Lasagabaster & Serra, 2013). A related concern was indicated by respondents in the previously cited global survey of EMI carried out by Dearden (2014). Respondents expressed doubts regarding "the potentially socially divisive nature of EMI because instruction through English may limit access from lower socio-economic groups and/or a fear that the first language or national identity will be undermined" (p. 2). Counterbalancing this tendency may require the implementation of a multilingual approach in which instruction in both English and the local language(s) are maintained. This is the case, for example, in South Africa, where selected universities are expected to have a language policy in which one of the local African languages is targeted in curriculum planning (Hornberger & Vaish, 2009).

In line with incorporating EMI within a multilingual approach, Phillipson and Skutnabb-Kangas (1996) contrast the diffusion of an all-English paradigm characterized by a "monolingual view of modernization and internationalization" and the ecology-of-language paradigm which involves "building on linguistic diversity worldwide, promoting multilingualism and foreign language learning, and granting linguistic human rights to speakers of all languages" (p. 429). Frameworks and formulae of language policy and planning which respond to calls for internationalization and multilingualism, and which incorporate both EMI and instruction in the local language(s), are the subject of recent research, which is discussed here.

One comparative study of multilingual language policy was carried out in three European universities in different bilingual regions: Catalonia, the Basque Country and Wales (Cots Lasagabaster & Garrett, 2012). The authors found that the underlying rationales for language policy and planning related with multilingualism and internationalization varied among the three institutions, but were attributable to three

underlying rationales: academic internationalism; economic competition; and development, or provision of education or training for developing countries. Their analysis revealed that English was depicted as an invaluable asset in internationalizing processes, whereas the presence of minority languages such as Basque, Catalan or Welsh, was testimonial, unnoticed or even an obstacle to internationalization. These results reflect the variability and the challenges of internationalized multilingual education.

Within the research presented in this dissertation, the use of local languages in multilingual university instruction is a topic made relevant by the participants, as will be seen in Chapter 5 and Chapter 9. In Chapter 5, analysis suggests that informal unwritten language policy which excludes the use of a local language in the EMI classroom creates tensions for the EMI teacher. Chapter 9 focuses on the recognition of the benefits of allowing the use of a local language in the EMI classroom as a means to support content learning.

Another theoretical development in the area of language policy and planning in the internationalization processes at multilingual universities places emphasis on the need to explore not only top down, but also bottom up language planning, which involves how language policy is determined in locally-situated practices (Mortensen, 2014, Moore & Patiño, 2014). The implications of locally-constructed language policy and planning in multilingual education is the focus of a recent study by Moore (2016) who contrasts institutional monolingual language policy and local plurilingual practices in EMI. The findings reflect the fact that both students and teachers resort to plurilingual practices and other strategies, such as the employment of multimodal resources in Catalan EMI classrooms, a fact seldom acknowledged or legitimized in official university language policies.

Moore (2016) concludes that:

> In a way, it is time for micropractices of plurilingualism such as those studied to 'come out of the closet' and to the fore of language policy and pedagogical initiatives aiming at multilingual, international higher education in Catalonia and beyond (p. 36)

The local, bottom up determination of language policy and planning is reflected in this dissertation, which focuses on the interactional accomplishment of practices and co-construction of the EMI professional development process through the analysis of interactional data.

A final question involves the fact that the incorporation of EMI in HE may have a negative impact on the development of cultural awareness of English speakers who study abroad in internationalized programs taught in English. As pointed out by Coleman (2006):

> (T)he increasing adoption of English-medium teaching in European HE will arguably reduce the attraction and certainly the benefits of study abroad for native English-speaking students, stripping away exposure to genres and registers of the target language which they will not encounter elsewhere. (p. 9)

Lost or missed opportunities with respect to developing cultural awareness are an important concern for EMI researchers and policy and program designers currently. As expressed by Coleman (2006):

> (E)xchange students run the risk of spending their period abroad as tourists, skimming the surface of their host country, without the deeper involvement that can bring maturity and intercultural awareness. (p. 9)

In conclusion, the incorporation of EMI in HE faces many challenges, ranging from questions regarding institutional preparedness, the impact of instruction of content in English on content learning or language learning, domain loss and language policy and

planning issues related with EMI teacher development. The impact of EMI on the development of cultural awareness is also a concern. A final issue which is often raised regarding EMI involves the content lecturers' perceived or actual ability to teach in English. This and related questions form an integral part of the research for this dissertation and will thus be addressed independently in Subsection 1.4.1 .

1.4 Professional development for EMI

1.4.1 Motivations for EMI professional development

As discussed previously in Section 1.3, the incorporation of instruction in English at university is associated with university policies aiming at internationalization. The benefits associated with the introduction of EMI in HE are widely recognized by university teaching staff. One Basque university professor summarizes some of the perceived benefits of teaching subject area content in English (Doiz, Lasagabaster & Serra, 2011):

> In my field, English is a must. All research is carried out in this language and students can obtain many benefits if they have the opportunity to improve their English and work in this language. English is the language of science. Besides, their language background will be much richer and they will be able to speak three languages (p. 352).

These statements are echoed in a more recent study of EMI teachers' perceptions of EMI collected in an online survey at the Universidad Complutense de Madrid (Dafouz, 2018). The findings reveal that EMI lecturers unanimously agreed that EMI had enhanced their linguistic and social capital providing the younger teachers with a more international professional identity and a promising academic future.

Despite general recognition of the positive aspects of EMI, however, initiatives to introduce content instruction in English at Spanish universities have also met resistance on the part of some teachers and students. Doiz, Lasagabaster and Sierra (2011) report "widespread unwillingness of many teachers to participate in multilingual programmes" (p. 353). Fortanet-Gómez (2012) explains: "Lecturers seem to be doubtful and insecure about certain aspects of the implementation of multilingual education, even though they do acknowledge its importance for the university" (p. 61). One concern involves English language competency levels. While some Spanish content lecturers identify low English language competency levels of students as a barrier to EMI (Arnó-Macià & Mancho-Barés, 2015; Cots, 2013), others refer to their own levels of English competency. In a survey study conducted at the Universitat Jaume I, lecturers evaluated their command of English as low for teaching purposes, and 95.9% of lecturers surveyed felt that specific teacher training is necessary to implement multilingual education of this sort (Fortanet Gomez, 2012, p. 58). These doubts and insecurities are echoed in other studies involving lecturers from Spain and southern Europe (Cots, 2013; Doiz, Lasagabaster & Serra, 2011; Helm & Guarda, 2015). Higher education institutions have responded to these lecturer insecurities with initiatives specifically addressed to EMI teacher professional development, which will be referred to using the acronym EMITD.

1.4.2 Trends in EMI teacher development

Concrete data regarding the number of EMI teacher training programs in existence in HE globally is not readily available. Despite this, in her survey of British Council staff regarding EMI in 55 countries, Dearden (2014) observes:

> Although 27 per cent of respondents reported that their country had had some limited guidelines about how to teach through EMI, 60 per cent reported none.

Moreover, in very few countries adopting EMI was there a clear strategy in terms of educational structure with regard to EMI (p. 24)

In the previously cited systematic review of research on EMI worldwide, Macaro et al. (2018) observe a lack of research on presevice training for EMI teachers, suggesting that it does not exist in many contexts. While the authors did locate research studies regarding inservice training, they state: “we have no notion of the level of uptake or the overall success of programmes in any country or jusisdiction” (p. 56).

In Europe, a recent study suggests a lack of professional development programs for EMI. O’Dowd (2018) has examined current practices in the training and accreditation of university teachers in EMI across the EHEA. The results reflect the responses of representatives of 70 European universities carried out in 2014-2015. Spain was strongly represented, as twenty-two of the responding institutions were Spanish. Ninety-three percent of the responding institutions offered courses through English, yet the findings revealed that 30% of the universities in the survey did not provide any type of training courses for their EMI teachers. Moreover, 30% of the respondents felt that the issue of providing training in EMI for teachers was not important at their institutions. These data seem to indicate that the presence of EMITD programs is low within European universities.

Where EMITD programs do exist, it would appear that their development has occurred bottom-up, in response to local needs, expressed in the doubts and insecurities of content lecturers to teach their subject matter in English. Planning and implementation of development programs has not been accompanied by systematic organization and evaluation. Lauridsen (2017) claims that many professional development processes have involved ad hoc activities, indicating the need for a “systematic and holistic approach” (p. 26). While emphasizing the importance of continuous professional development for

EMI instructors, Valcke and Wilkinson (2017) also state that few universities have formal development processes, and available support "is voluntary and unsystematic" (p. 17). These assertions are supported by the findings from the previously-cited study by O'Dowd (2018). According to this study's results, in European HE institutions which included EMITD, many different approaches to EMI training were employed. While the majority of institutions which provided training included the development of communicative skills in their programs, almost half of the programs overlooked methodology for teaching in an additional language. In addition, a lack of consensus existed among universities regarding the minimum level of English a teacher needed in order to teach their subjects through this language. Forty-four percent of institutions required a minimum B2 level, 43% required a C1 level, and in the remaining 14% of institutions teachers were required to demonstrate a C2 level in order to teach.

In the face of disparities, European initiatives aimed at purposeful development and standardization of EMI teacher training have been established. One such initiative that attempts to create a practical, coherent approach to EMI professional development is the *Educational quality at universities for inclusive international programmes* (EQUiiP) project (https://equiip.eu). A European Erasmus+ innovation project involving collaborators from seven universities, EQUiip was initiated in 2016. This pilot project works currently on the development of continuing professional development modules for the use of EMI program planners and EMI teacher trainers. Access to modules through an open source platform is planned to facilitate their incorporation into the existing support for university teaching staff across Europe.

1.4.3 Research on EMI teacher development

In order to contextualize the investigative work presented in this dissertation, a brief review of recent research specifically focussing on EMI teacher development programs is given here. Two studies which focus on issues of teacher identity in EMI and tensions and transformation in EMI teacher training are presented first. These studies are framed by the theoretical perspectives of ROADMAPPING (introduced in Section 1.3.2) and third-generation cultural historical activity theory (CHAT). They are followed by a summary of other relevant research, with an emphasis on research on EMITD carried out in Spain and Catalonia.

One recent study by Dafouz (2018) examines the changing identity involved in the process of becoming an EMI teacher at a Spanish public university, the Universidad Complutense de Madrid. The study examines the ideological forces and identity issues involved in professional development for EMI, drawing on two conceptual models: investment theory and language policy and planning (LPP) from the ROADMAPPING Framework. Content analysis was carried out on online written responses of EMI lecturers to questions regarding their experiences teaching subject content in English. The findings revealed that lecturers agreed with respect to the personal benefits of their experience in teaching in English, in that EMI had enhanced their linguistic and social capital, and provided the younger teachers with a more international professional identity and a promising academic future. At the same time lecturers expressed their concerns about the need to ensure the co-existence of languages (Spanish and English), particularly with respect to teachers' responsibility to provide students with disciplinary literacy in both languages in order to ensure that graduates develop professionally-related competencies needed to interact at both a local and global level. Aside from reflecting EMI teacher beliefs and concerns, the study provided evidence of the transformative

potential of EMI on teacher identity and the usefulness of the ROADMAPPING framework for the study of EMI.

The transformative potential of EMI teacher development is also the focus of a study by Moore, Ploettner and Deal (2015), carried out in the same context as this dissertation. In this study, third generation cultural historical activity theory (CHAT) framed the analysis of a collaborative EMITD process between a content specialist and language specialist for EMI, similar to the type of collaborative process studied in this dissertation. The framework facilitated the study of the tensions and the transformative potential of the EMITD collaborative process at the intersection between the activity systems of teaching English through content and teaching content through English. Ethnographic analysis of field notes suggested that third generation CHAT provided a viable approach for studying the emerging tensions which arise in such a process and the underlying contradictions which produce them. This framework is discussed in more depth in Chapter 4 of this dissertation, while the transformative potential of the EMITD process studied is the focus of analysis in Chapter 9.

Aside from the abovementioned research on the issues of identity and transformation in EMI teacher development, much of the literature regarding professional development for EMI is focused on more practical aspects related with the planning and implementation of teacher training programs. Within the Spanish context, these studies vary in focus, including: basic research on students' and teachers' beliefs regarding EMI and teachers' needs analyses; case studies of individual training processes; the presentation of existing programs; and frameworks for planning entire EMI teacher training programs. Representative research along these lines is presented below.

An in-depth report of an existing program has been presented by Ball and Lindsay (2013) regarding the EMI teacher support program at the Universidad del País Vasco

comprised of the TOPTULTE EMI teacher accreditation test, language focus support groups, and an EMI pedagogy course. The pedagogy course was designed to address the topics of lecturing, student participation, processing of written texts, and assessment. Descriptions of the content of other programs in Spain are contained in a review of a selection of existing EMI teacher training and certification programs in Spanish Universities in Vigo, Oviedo, Almeria and Cantabria presented by Ruiz-Garrido and Ruiz-Madrid (2016). Aside from providing evidence regarding the lack of consensus among institutions regarding EMI teacher training in Spain, the authors propose a system of professional development for EMI which would include both linguistic and non-linguistic preparation.

A case study of a project which involved interdisciplinary collaboration between one content specialist and one language specialist was carried out by Cots and Clemente (2011) in the multilingual context of the Universitat de Lleida. This three-year project involved initial program design and implementation, followed by tandem teaching, and finally EMI delivered alone by the content specialist. The study demonstrates the feasibility of team teaching as part of an EMITD process. Other recent literature which presents cases of successful collaboration between content and language specialists for EMI includes studies by Brown (2017) and Weinberg and Symon (2017).

On a larger scale, Fortanet-Gomez (2013) presents a university plan for teacher development for EMI at the Universitat de Jaume I. Citing previous studies of professional formation in higher education (Kurtan, 2003), Fortanet-Gomez puts forth recommendations that EMI teacher training include a focus on the three aspects of communication and specific language use; pedagogy and didactics; and interculturality and multilingualism. Other current research which proposes frameworks for the design of professional development has been carried out by Lauridsen (2017), who adapts a

model of faculty development from Steinert (2010), recommending that programs be ongoing processes in order to be truly effective. According to Lauridsen (2017), EMI teacher development should include a variety of activities which can range from individual to group activities and from formal activities such as online learning, peer coaching, and workshops and seminars, to informal individual observation and reflection. The central role of the mentor as a reference for each EMI teacher-in-training is stressed by this author.

In the Catalan context, Arnó-Macià and Mancho-Barès (2015) have examined institutional policies and the practices and views of lecturers and students via document analysis and questionnaires in a study carried out at the Universitat de Lleida. This study concludes with a recommendation for the establishment of multidisciplinary collaboration between content and ESP lecturers for the development of EMI. In a subsequent study these same authors provide a summary of the approaches and the content of EMI lecturer training programs at seven public universities in Catalonia (Mancho-Barés & Arnó Macià, 2017). The authors examined university policy documents and websites to study the EMI training offered to lecturers, as well as the disciplinary discourse practices that lecturers reportedly use in their teaching. They found that the major focus of training in the programs was on communication and pedagogy, and documented EMI lecturers' perceived need for ESP training regarding disciplinary-specific academic genres in English. The authors recommend that future studies monitor the quality and results of EMI programs to facilitate a principled approach to implementing EMI. Importantly, the authors point out that their study is restricted to the analysis of policy documents without looking at their implementation. They recommend that follow-up research examine the implementation of such programs, especially the training offered to lecturers.

In summary, a brief review of recent research literature regarding EMITD reveals a limited amount of theoretical work focussing on identity and transformation in EMI teacher development (Dafouz, 2018; Moore, Ploettner & Deal, 2015) and a large body of evidence which includes a variety of descriptions of existing or planned policies and programs. A lack of research exists, however, which focuses on how planned programs get implemented in practice on a local level. This question will be expanded in the following section, which also presents the reseach gap and justification of this dissertation.

1.5 The current research

In their presentation of the ROADMAPPING model for the study of English medium education in multilingual settings, Dafouz and Smit (2014) make reference to Spolsky's (2007) expanded model of language policy, claiming, "there is a need for considering [language policy] concerns in [English medium education in multilingual settings] according to three separable dimensions: language management, practices, and the agents' beliefs" (p. 402). This dissertation is based on the premise that training processes for EMI are complex, dynamic and multilayered phenomena. As such, the study of the social phenomenon of EMI teacher development can also be framed within the dimensions of management, beliefs, and practices. The review of current research regarding EMITD reflects a strong representation of studies within the dimension of management in the form of the presentation of reports of existing or planned EMITD processes by authoritative researchers which include recommendations for how processes should be planned or executed. Extensive research also exists regarding the beliefs of the agents (teachers, students, administrators) regarding EMI and EMI teacher training. Few

studies, however, examine the dimension of actual practices, the observable behaviors and choices – what people actually do when they are 'doing' EMI teacher training.

This study aims to extend the existing body of research by presenting a study which looks at of the actual practices through which an EMI teacher training process is accomplished in interaction. It examines the emerging co-constructed shared worldviews of EMI and the participation frameworks which constitute the training process. By examining the process on a local interactional level, practices implicated in the co-construction of EMI expertise are identified, allowing for the development of a heuristic for understanding the interactional accomplishment of EMI expertise. In this manner, the dissertation aims to complement existing research within the dimensions of mangement and beliefs with a glimpse of the 'real policy' emerging from actual practices in EMI teacher training.

1.6 Chapter summary

In this chapter, contextualizing information regarding the theoretical and historical roots of EMI was presented in Section 1.1. In this section the theoretical roots of integrated approaches to learning of content and language and three educational approaches which arose in primary and secondary education and which served as historical precedents for EMI were set out. Section 1.2 focussed on English language instruction in higher education. It included a historical overview of English instruction in HE and the factors behind its development, as well as three modes of English instruction in tertiary education: English for academic purposes, English for specific purposes, and integrated content and language learning in higher education. Section 1.3 then centered on EMI, including the conceptualization of and theoretical approaches to EMI, and trends and challenges in the development of EMI. Section 1.4 was dedicated to professional

development for EMI, the focus of this dissertation. Motivations behind and trends in EMI teacher development were presented, along with an overview of existing research on EMI professional development. Gaps in the existing body of evidence regarding EMI professional development were identified, followed by a presentation of the main contribution of the current research to the literature presented in this introductory chapter in Section 1.5.

The research objectives and research questions of the investigative project presented in this dissertation are presented in the following chapter, Chapter 2.

Chapter 2

Objectives and research questions

As stated from the outset of this manuscript, this thesis looks at the inner workings of one EMI teacher development (EMITD) initiative through the analysis of interactional data, in order to gain local access to the process. By doing so, it attempts to shed light on how the EMI teacher development process is co-constructed in interaction. The global objectives of this research are:

- To study how an EMI teacher development process is co-constructed in interaction between one content specialist and one language specialist.
- To examine interactional contexts within an EMI teacher development process in which EMI teaching expertise is displayed.
- To develop a theoretically-based understanding and a methodological approach to the study of the interactional accomplishment of EMI expertise

These three general objectives are developed in the following research questions which have determined the research process and the structure of this dissertation. The three broad research questions have been divided into sub-questions which are outlined here.

RQ 1: How is a teacher development process for English medium instruction co-constructed in interaction?

- RQ 1A: What shared worldviews of EMI are co-constructed in interaction?
- RQ 1B: How is the planned EMI teacher development process implemented and interpreted in interaction?
- RQ 1C: What participation frameworks are co-constructed in the initial negotiations of an EMI teacher development process?

RQ 2: How is EMI expertise made visible and co-constructed in interaction in the EMI teacher development process?

- RQ 2A: In what interactional contexts is EMI expertise co-constructed and made visible?
- RQ 2B: How do material artefacts participate in the co-construction of EMI expertise and the EMI teacher development process?

RQ 3: How can the interactional accomplishment of EMI expertise be represented for future studies?

- RQ 3A: How can the interactional accomplishment of EMI expertise be represented by a heuristic model?
- RQ 3B: How can the application of the heuristic model shed light on the accomplishment of EMI expertise in the EMI teacher development process?

RQ 1 (How is a teacher development process for English medium instruction co-constructed in interaction?) has been sub-divided into several sub-questions which are addressed in Chapters 5 and 6. The first sub-question (What shared worldviews of EMI are co-constructed in interaction?) is addressed in Chapter 5. The second sub-question (How is the planned EMI teacher development process implemented and interpreted in interaction?) is the topic of Chapter 6, as is the third sub-question (What participation frameworks are co-constructed in the initial negotiations of an EMI teacher development process?)

RQ 2 (How is EMI expertise made visible and co-constructed in interaction in the EMI teacher development process?) is addressed in Chapters 7 and 9. In order to maintain clarity, the broader research question is subdivided into sub-questions: RQ 2A (In what

interactional context is EMI expertise co-constructed and made visible?) and RQ 2B (How do material artefacts participate in the co-construction of EMI expertise and the EMI teacher development process?). RQ 2A is addressed in Chapter 7, which conceptualizes EMI expertise from the perspective of enactment of expertise and frames the data analysis with notions from epistemics-in-interaction. RQ 2B is addressed separately in Chapter 6, Chapter 7, and Chapter 8, and synthesized in Section 9.3 of Chapter 9, which focuses on the participation of material artefacts in the EMITD process.

RQ 3 (How can the interactional accomplishment of EMI expertise be represented for future studies?) is addressed in Chapter 8. Once again the broader research question is sub divided. RQ 3A (How can the interactional accomplishment of EMI expertise be represented by a heuristic model?) is addressed in Chapter 8 by referring to notions of professional vision, enactments of expertise, and epistemics-in-interaction, all of which are drawn from in order to create a working hypothesis of how the interactional accomplishment of EMI expertise can be modelled. Aspects of this heuristic model are employed in the analysis of interactional data collected during the shared viewing of video recorded EMI classroom teaching to address RQ 3B (How can the application of the heuristic model shed light on the accomplishment of EMI expertise in the EMI teacher development process?)

Comparisons of analyses carried out at different points in the EMITD process are presented in Chapter 9, which focuses on emerging findings. Along with the analysis of the participation of different material artefacts at different points in the process, presented in Section 9.3, Chapter 9 also includes findings regarding the transformative potential of the EMITD process in Section 9.2. These findings reflect longitudinal comparisons of shared world views of EMI as they relate to plurilingual practices and suggest the transformative potential of the EMITD process as originally proposed in the theoretical

underpinnings of development groups framed by third generation cultural historical activity theory (Engeström, 2001).

In the following chapter, Chapter 3, the unifying conceptual framework of this thesis, conversation analysis (CA), is presented.

Chapter 3

Theoretical and methodological framework: Ethnomethodological conversation analysis

This chapter sets forth the theoretical and methodological foundations which sustain the research presented in this dissertation. Section 3.1 discusses ontological and epistemological aspects of the research, along with contingencies which result from the broad scope of analysis used in this dissertation. Section 3.2 provides an overview of ethnomethodological conversation analysis (EMCA), including the intellectual roots of EMCA, and fundamental features of interaction, such as turn-taking, preference organization, repair organization, and sequence organization, Finally, in the last two sections multimodal and embodied conversation analysis (CA) and institutional CA and workplace studies are discussed as they relate to this dissertation.

The scope of analysis of this dissertation is broad. The focus ranges from members' identities and the shared worldviews of EMI in Chapter 5, to emerging participation frameworks within the EMITD process in Chapter 6, and the creation of opportunities for the interactional accomplishment of EMI expertise in Chapters 7 and 8. This has necessitated the use of different theoretical frameworks which adjust to the different research objectives and questions posed. The more precise theories used to develop the specific analyses are presented within the individual chapters. Therefore, membership category analysis and language ideologies, language policy and language preference issues are presented in Chapter 5. Chapter 6 sets forth participation and interdisciplinary collaboration. Theoretical frameworks presented in Chapter 7 include epistemics-in-interaction and enactment of expertise. These same frameworks also contribute to the development of the heuristic model in Chapter 8, which includes an overview of professional vision. Analysis of emerging findings in Chapter 9 is guided by

cultural historical activity theory, presented in section 4.2 within the context of the explanation of development partnerships for EMI.

3.1 Ontologic and epistemologic considerations of the research approach

As mentioned in the introduction in Chapter 1, this dissertation presents a naturalistic inquiry (Lincoln & Guba, 1985) of EMI teacher development. As such, it is framed by an ontological perspective which conceives multiple, constructed realities. The epistemological perspective is based on the assumption that the inquirer and the object of inquiry are inseparable and interact. Following the naturalistic paradigm, it does not aim at obtaining generalizable results. Rather, the aim is to develop an idiographic body of knowledge that describes an individual case of EMI teacher development. A case study approach has been chosen for this study as it adapts to these ontological and epistemological contingencies. In addition, by presenting a thick description of the object of study, it allows the possibility of transferability of some of the findings and approaches to other similar contexts.

All of the analyses have been framed within and informed by the perspective of ethnomethodological conversation analysis, thus taking the position that interaction, including talk-in-interaction, embodied action and the material surroundings, provides access to understanding social worlds. A summary of the principle notions of conversation analysis is presented in this chapter. In order to facilitate coherence and comprehensibility of the analysis presented in each of the separate analytical chapters, descriptions of the other specific theoretical concepts employed are presented in the chapters within which they are used.

3.2 Ethnomethodological conversation analysis

The theoretical and methodological approach in this dissertation is framed within ethnomethodological conversation analysis (EMCA). As such, the study proposes that the social organization of human activity, in this case the organization of an English medium instruction teacher development (EMITD) process, is accomplished locally in interaction (Garfinkel, 1967; Sacks, 1992). Although is is not possible to give an exhaustive description of CA here, this secion will provide a snapshot of the intellectual roots of CA, followed by a summary of its theoretical perspectives and methodological approaches.

3.2.1 Intellectual roots of ethnomethodological CA

The philosophical and theoretical roots of ethnomethodological conversation analysis lie in Goffmanian sociology and also in ethnomethodology developed by Harold Garfinkel. Erving Goffman's (e.g. Goffman, 1981) contribution to the science of sociology consisted of the identification of face-to-face interaction as a viable object of inquiry, representing an important shift in the field at a time when surveys and statistical analysis were the basic approaches of sociological research. However, as pointed out by Maynard (2013, p. 17), whereas Goffman examined the constraints imposed by rituals and by psychological aspects of interaction, such as maintaining face, CA focuses more on system constraints and structures of interaction, such as turn-taking and the sequencing of adjacency pairs. As opposed to basic CA, Goffman used single instances of interactional phenomena, which he sometimes invented, on which to interpret and conceptualize social conduct, rather than analyze actual conduct in naturally-ocurring, embodied courses of action. Despite these differences, later work by Goffman has had an extremely significant influence in conversation analytic research, contributing the notions of framing, footing, and participation, which are also fundamental to this study (see Chapter 6).

Building on Goffman's microsociological approach, the field of ethnomethodology provided a perspective on the study of human sociality through the observation of naturally-occurring actions. Garfinkel's (e.g. Garfinkel, 1967) use of commonsense logic to unravel the methods through which interactants construct shared understandings of the world was applied to talk-in-interaction in the development of the emerging science of conversation analysis. Ethnomethodology additionally contributed an emic, or participant's, perspective to conversation analysis, in which the explication of any utterance is contingent upon how it is dealt with by recipients, thus leading to the central importance of sequentiality in CA. Five fundamental principles of ethnomethodology which also relate to CA are: indexicality, or context-boundedness; the documentary method of interpretation, or the treatment of actions as documents or examples of culturally shared patterns; intersubjectivity, participants' attempts to construct shared perspectives of the world; normative accountability, where norms are constitutive of action and reference to norms determines how actions are designed and interpreted; and reflexivity, meaning that the same set of methods or procedures are responsible for both the production of actions and their interpretation (Seedhouse, 2004).

Harvey Sacks is frequently cited as laying the theoretical foundations of CA with his initial work in analysing tape-recorded conversations. As pointed out by some scholars (Psaths, 1995, p. 2), the term conversation analysis can be misleading, because CA is not simply interested in conversational talk, but rather the organization of actions in interaction. The development and use of tape-recorded conversation was a methodological breakthrough key to the development of CA as a science, as recordings of interaction could be studied again and again, enabling others to examine the same data and come to their own independent conclusions (Sacks, 1992, p. 619-623). Recorded interactions were thus a means to build findings which could be corrected and through

which conversation analysts could deal with the concrete details of actual events. This unique approach produced findings grounded in the observable details of interaction, a feature which makes them both specific and at the same time accumulative in collections, or groupings of data in which similar interactional phenomena occur.

Four basic principles distinguish CA: First, that there is order in all points of interaction; second, that interactional contributions are context-shaped and context-renewing, which leads to the understanding that contributions to interactions can only be understood by reference to the sequential environment in which they occur and that contributions themselves form part of the sequential environment; third, that no order of detail can be dismissed a priori as irrelevant; fourth, that analysis is bottom-up and data-driven.

CA is singular in that it avoids idealizations, basing findings on detailed examination of interactional action. It does not attempt to deduce participants' thoughts or motives, but rather studies what participants orient to in interaction. In the study of the methods used by interactants to accomplish social actions, this approach examines the interactional procedures by which behavior is organized in a mutually understandable way to establish and maintain social organization. CA does not examine ethnographic notes or informants' recollections, invented examples, or use experimentally-manipulated actions, which may omit or distort details of natural situated interaction (Mondada, 2013). Although applied CA studies may include such complementary information, CA preferentially takes a situated perspective for the study of interactional processes, proposing that the way that participants display their orientations in interaction provides sufficient resources for seeing how interactions can be understood.

Examination of the organization of actions in interaction involves studying the sequential accomplishment of social actions. This approach allows analysts to deconstruct

the composition of social actions and uncover their meaning and underlying rationality. Arminen (2005) contrasts CA with other discourse analytic approaches: "(The) time-bound fabric of social actions …distinguishes CA from most other fields, which conceptualize their objects in achronic terms" (p. xii).

With respect to cognition and learning, CA is guided by social constructivist perspectives. As has been discussed in Section 1.1.1, social constructivism conceives of knowledge as socially and culturally constructed. Individuals create meaning through their interactions with each other and with the environment they live in. Social constructivism views learning as a social process. It does not take place only within an individual, nor is it the passive development of behaviors that are shaped by external forces. Meaningful learning occurs when individuals are engaged in social activities. In line with this perspective, CA studies cognition as it is co-constructed and made visible in interaction. This perspective contrasts with the cognitive science approach of studying cognition in the individual mind or brain.

Fundamental features of interaction which are the focus of conversation analysis are turn-taking (Sacks, Schegloff & Jefferson, 1974), preference organization (Pomerantz, 1984), repair organization (Schegloff, Jefferson & Sacks, 1977), and sequence organization (Schegloff, 2007). Each of these areas has been the topic of volumes of scholastic work, which cannot be exhaustively presented here. A brief explanation of each feature is given in the following section, while interested readers are referred to the works of Sacks (1992), Schegloff (2007), Sidnell and Stivers (2013), and other recognized experts to supplement this information.

3.2.2 Fundamental features of interaction

3.2.2.1 Turn-taking

Levinson (2013) asserts that the taking of turns in conversation is nothing short of a miracle. The progressivity of interaction depends on both action formation, the ability of a speaker to design particular recognizable social actions (such as requesting, agreeing, telling) through the use of the resources of language, the body, the environment, and position in the interaction, and on action ascription, the ability of the recipient to assign to a turn an action, to plan a response, and to predict when the current turn will end. Action formation and action ascription play a crucial role in turn organization, the basis of which are the turn-constructional unit (TCU) and the turn-relevant place (TRP). The TCU can be understood as a single social action performed in a turn or a sequence, where the study of turn design examines how speakers use their linguistic and non-linguistic resources to construct turns to do specific social actions in a recognizable way. The transition-relevant place (TRP) is the projectable end of a TCU where speaker change may occur. The transition-relevant place is signalled by the curent speaker in a number of recognizable ways, including prosody, syntax, semantic, or pragmatic resources, such as gaze shift, as can be seen in some of the analysis in this dissertation.

3.2.2.2 Preference organization

The main idea of preference is that participants follow certain, often unspoken, principles when they interact (Pomerantz & Heritage, 2013). The concept of preference embraces a variety of principles which involve different types of constraint in interaction. Preference principles play a part in many actions, such as the selection and interpretation of references, as exemplified in recipient design, that is, how speakers orient to recipients in their production of talk, or the production and interpretation of initiating and responding

actions. Sacks, Schegloff & Jefferson (1974) define recipient design as “the multitude of respects in which the talk by a party in a conversation is construed in ways which display an orientation and sensitivity to the particular other(s) who are the co-partícipants” (p.727). The study of preference focuses on two aspects: 1) culturally shaped preference principals; and 2) the empirically discoverable ways of speaking and acting which occur in accord with these principles.

A preferred response is one which follows established norms, is socially affiliative, promotes reciprocity of perspectives and is usually delivered without delay or mitigation, and may even overlap. The preferred response to an invitation, for example, is acceptance. A non-preferred response is associated with delay, pauses, mitigation, or accounts. One example from the data included in this thesis involves the use by the language specialist (LS) of a candidate answer or polar question in data presented in Chapter 5:

```
77  LS:   and they should be practic[ing their english right?
78  CS:                              [yeah yeah
```

In this case, the question in line 77 is constructed to display a prefence for a yes response (Sacks, 1992), the preference principle being: if possible, avoid or minimize explicit disconformity in favor of confirmations. The undelayed unmitigated overlapping content specialist (CS) response indicates it is a preferred response as contrasted with a hypothetical dispreferred negative response, which would be preceded by delay, pauses and mitigation and often accompanied by an account for the dispreferred response.

3.2.2.3 Repair organization

The domain of repair has been defined as the set of practices whereby a co-interactant interrupts the ongoing course of action to attend to possible trouble in speaking, hearing or understanding talk (Schegloff, Jefferson & Sacks, 1977). Repair is used to ensure that intersubjectivity is maintained and that the progress of interaction is ensured (Schegloff, 2007). Repair can be classified according to different systems, one of which distinguishes self-initiated self-repair; self-initiated other-repair; other-initiated self-repair and other-initiated other-repair. A scale of preference in this organization of repair has been established empirically, with self-initiated self-repair being the most preferred, whereas other-initiated other-repair is the least preferred (Kitzinger, 2013). Repairs can perform different actions as well as upgrade or downgrade actions, as occurs in the following self-initiated self-repair in data from Chapter 7 of this thesis. The following fragment takes place within the interactional context of the discussion between the language specialist (LS) and the content specialist (CS) of the planning and preparation of an upcoming EMI lesson.

```
1   LS:  so have you thought-
         ((LS and CS brief mutual gaze, LS has a pen in her
         right hand ))
2        i mean
3        what have you thought about-
         (( CS gaze shifts to the document in front of
         her))
4        you can do whatever you want
```

In this case, a series of self-repairs progressively upgrades an action. A cut off information request by the language specialist (LS) at line 1 attributes to the content

specialist (CS) the responsibility to plan an upcoming EMI lesson. Self-initiated self-repair at lines 3 and 4 progressively upgrade the strength of the attribution, where line 3 eliminates the possibilty that the CS could claim that she has not given thought to planning the lesson, and line 4 strengthens this attribution even more.

3.2.2.4 Sequence organization

As stated previously, CA views the positioning of an utterance in ongoing conversation as fundamental to understanding its meaning and its significance as an action (Stivers, 2013). In other words, CA is founded on the assumption that conversation is sequentially organized, in that turn constructional units and the actions produced by them depend on what preceded them and affect what comes next. The basic unit of sequence organization is the adjacency pair (Schegloff, 2007a). The notion of adjacency pair draws from the idea that with particular actions a normative obligation exists to perform a type fitted response at the first possible opportunity. For example, a request for information would normally be expected to be followed by an informative answer. A non-response is dispreferred. Dispreferred responses are frquently signalled by delay, mitigation or an account.

The study of sequence organization not only looks at adjacency pairs, but also expansions of such sequences in the form of pre-expansion, insert expansion or post-expansion. For example, in a classroom situation, a teacher's information request would be expected to receive an informing answer, which may be expanded on by the teacher in the action of scaffolding learning, where scaffolding can be understood as "the support given to learners in achieving cognitively challenging tasks" (Deal, 2016, p. 24). An example of post-expansion occurs in classroom data presented in Chapter 8. In this fragment the content specialist projects an image of a laboratory test called a PCR

(Polymerase Chain Reaction) onto the classroom screen and asks student to identify the image.

```
1     CS    what is this?
            ((teacher in front of image on classroom screen, gaze
            directed at class))
2     STS   pcr
3     CS    pcr okay
4           it’s a ↑pcr (.)with a differentiation process
5           here
6           the positive control is bone.
            ((gesture with left hand down the column on the far left,
            accompanied by a shift of body position to face the students
            and gaze directed at classroom))
```

Here the student response at line 2 “it’s a pcr” is expanded on by the teacher at lines 4 and 6. Post expansion scaffolds learning through what Deal (2016) and Tharp and Gallimore (1988) refer to as cognitive structuring, which assists by providing explanatory and belief structures that organize and justify, making reasoning processes visible.

In this section a brief summary of fundamental features of interaction, along with exemplifying fragments drawn from the data collected for this dissertation, has been presented. In the following sections, two specific strands of CA which are relevant to the current study are revised. They are multimodal and embodied CA and institutional CA and workplace studies.

3.2.3 Multimodal and embodied CA

Whereas initially talk-in-interaction was taken as “the primordial site of human sociality” (Schegloff, 2006, p. 70), subsequent work on embodied social action and participation by

Charles Goodwin (2000), among others, proposed that the study of social interaction take a broader view of the situations in which multiple participants carry out courses of action together. Goodwin and his contemporaries expanded the focus of analysis beyond talk to include embodied actions, such as gaze and gesture, relative positioning and posture of co-participants, and the material context when analysing social interaction. This approach is reflected in later developments in Multimodal CA, which are employed in this dissertation. Multimodal CA (Mondada, 2016; Stivers & Sidnell, 2005) focuses on how different semiotic modalities are integrated so as to form coherent courses of action. As discussed by Mondada (2018) "Even where talk has been the central focus of CA, its primary focus is not language, but rather action, for which language is important" (p. 86). Multimodal CA has made important contributions to the study of institutional interaction (Heritage, 2005) and the development of workplace studies (Heath & Luff, 2013), which contemplate how multiple semiotic modes, such as gaze, gesture and the material surround participate in social actions as part of institutional work. These lines of investigation are presented in the following section.

3.2.4 Institutional CA and workplace studies

Research on interactions in the courtroom setting in the late 70s by Atkinson and Heritage initiated a unique strand of CA concerned with the distinctive features of institutional talk (Heritage, 2005). Institutional CA examines social institutions in talk-in-interaction, thus providing a way to study institutions through the way in which they are 'talked into existence' by the participants. Drew and Heritage (1992, p. 22) proposed the following three distinguishing characteristics of institutional talk:

1. Institutional interaction involves an orientation by at least one of the participants to some core goal, task or identity (or set of them) conventionally

associated with the institution in question. In short, institutional talk is normally informed by goal orientations of a relatively restricted conventional form.

2. Institutional interaction may often involve special and particular constraints on what one or both of the participants will treat as allowable contributions to the business at hand.

3. Institutional talk may be associated with inferential frameworks and procedures that are particular to specific institutional contexts.

The interaction which takes place within the context of the EMITD process can arguably be identified as institutional talk in that the interactions involve: an orientation by the participants to the goal of preparing the content specialist to teach subject content in English; contributions to the interaction are mainly limited to those relevant to the achievement of this goal; and the existence of specific frameworks (such as the roles of the participants) and procedures (the organization of the physical setting in which the meetings take place) for carrying out the EMITD process.

Institutional CA studies have examined how an institution is co-constructed and made visible in interaction as reflected by lexical choices, turn design, sequence organization, as well as social relations and interactional asymmetry (Drew & Heritage, 1992). Within the area of education, institutional CA has shed light on the interactional practices of classroom talk, focussing on the institutional nature of turn-taking and sequence in traditional teacher-fronted classrooms (Gardner, 2013). In the context of second language acquistion classroom interaction, Seedhouse (2004) has examined how turn-taking, sequence and repair varies according to the pedagogical focus of interaction. Although the interactions studied in this dissertation take place in an educational institution, with the goal of preparing EMI, the strands of institutional CA which are most relevant to the study of the collaborative process of professional development for EMI

are two: those which apply CA to the study of psychological interviews or counselling and those which focus on interaction and training in occupational settings, also called workplace studies.

On one hand, relevant CA research related to psychology examines how mutual understanding and intersubjectivity are co-constructed and made visible in interaction in the context of group therapy (Schegloff, 1992). The interactional display of claims to knowledge and epistemics (Heritage, 2013) and assessments (Pomerantz, 1984), which also inform analysis of psychological interventions (Potter & Edwards, 2013), frame the analysis of how the EMI teacher development process is talked into existence.

On the other hand, investigative work which examines interaction in the workplace is also relevant to the study of the professional development process. Workplace studies involve video-based research which analyses visible conduct, talk and material artefacts in occupational settings to understand the interactional accomplishment of work-related activities. Foundational research in this field was carried out by Heath (1986), who examined the phenomenon of doctor-patient consultation in primary care settings. Heath's research studied the interplay of gaze, gesture, embodied action and talk, and reflected how the presentation of a complaint or the expression of pain is co-constructed in interaction. Similarly, this dissertation focuses on the resources and practices that accomplish social interaction in the context of the training process for EMI. Heath and Luff (2013) indicate that a rising interest in the role that tools and technologies play in conduct and interaction within organizational environments has been influential in the development of workplace studies. Analysis of the contribution of video recordings of classroom interaction in the EMI training process is similarly presented in Chapters 8 and 9 of this dissertation.

3.3 Chapter summary

In summary, in this chapter the ontological and epistemological perspectives of this dissertation were described and ethnomethodological conversation analysis (EMCA) was presented as the principal theoretical and methodological framework. The intellectual roots of EMCA were reviewed, including work by Goffman (1981), Garfinkel (1967) and Sacks (1992). Four fundamental features of interaction which are the focus of CA were revised, including turn-taking, preference organization, repair, and sequence organization. Finally, in the last two sections, multimodal and embodied CA and institutional CA and workplace studies were discussed as they relate to this dissertation. In the following chapter, Chapter 4, ecological and procedural aspects of the research presented in this dissertation are set forth.

Chapter 4

Methods

This chapter includes the ecological and procedural aspects of the research process. Firstly, contextual information is presented. This begins with a description of the institutional context of the study. An explanation of what will be referred to as EMI teacher development partnerships (DP-EMI) is then given, including the theoretical orientations on which the organization of DP-EMI was based. This is followed by the presentation of the particular case of DP-EMI examined in this dissertation. The presentation includes a description of the participants and the organization and contents of the sessions which comprised the process. Finally, data collection is explained, along with an explanation of how data were selected and analysed.

4.1 The institutional context of the study

This study was carried out at the health sciences campus of a young, small, private university in Catalonia. Since inauguration of the institution, some subjects in all degree programs have been taught in English, principally by language specialists, who design and teach integrated content and language subjects in English (ICLHE). The subjects are aimed at teaching research design and discipline-specific academic professional discourse and academic language skills in English for the different health sciences programs. The more recently introduced EMI subjects are developed and delivered by content instructors whose L1[2] is usually Spanish or Catalan. Especially pertinent to this study is recent Catalan legislation requiring university students to certify a B2 (approximately 5.0 IELTS) level in an L2 in order to graduate, introduced in Section 1.2.2.2. This legislation,

[2] Participants in this study may have more than one 'L1', and when the term 'L2' is used, it may actually refer to speakers' third or fourth language. The distinction between first language(s) (L1) and second language(s) (L2) is used to facilitate description, while acknowledging the complexity of participants' language knowledge and use.

along with in-house policy supporting internationalization, has contributed to institutional pressure on departments to incorporate EMI, despite the fact that many of the lecturers and students in the institution have less than a B2 English level.

Although there was no official (written) language policy at the university at the time of this study, different strategic plans for the time period of 2015-2022 included mandates to:

- Ensure teaching staff have L2 certifications;
- Extend the course options available in English for both bachelor's degrees and postgraduate studies;
- Implement English language classes for staff.

At the time of this study, support for teaching EMI subjects consisted of linguistic support in the form of English conversation classes and the so-called development groups or partnerships (DP-EMI) studied in this dissertation. These are interdisciplinary collaborations between content and language specialists, discussed in the following section.

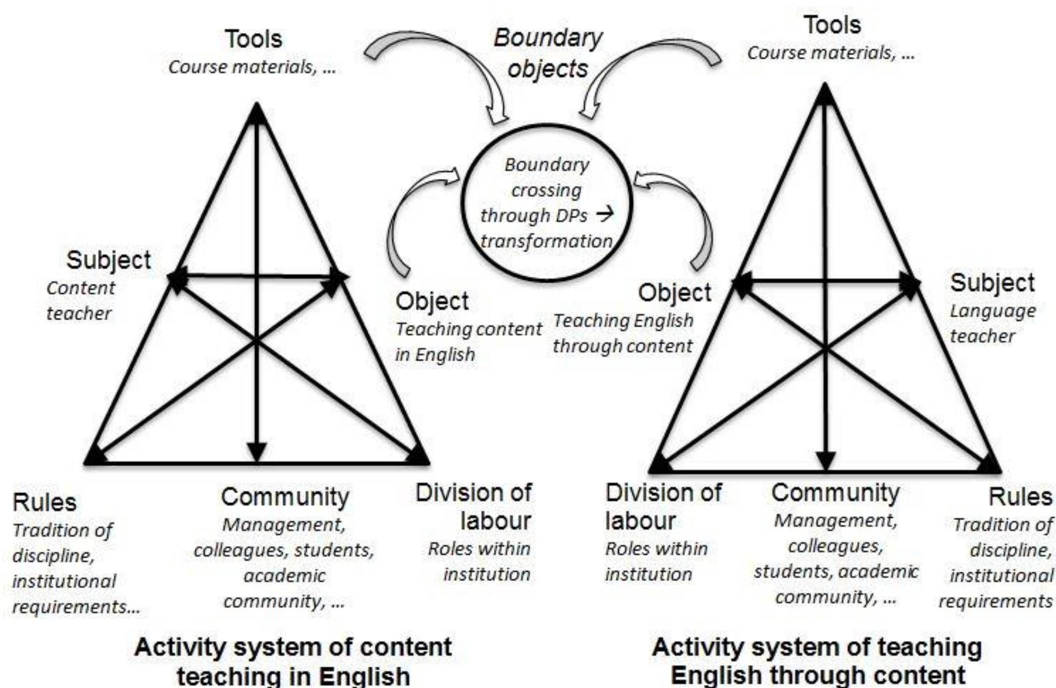
4.2 EMI teacher development partnerships

EMI teacher development partnerships (DP-EMI) were first introduced at the institution under study in 2012. The partnerships involved the establishment of a formalized space for dialogue between a language specialist and a content specialist outside the EMI classroom. Development partnerships were originally conceived of by program direction as reciprocal, open-structured EMITD processes in which one language specialist and one or two content instructors would collaborate in the preparation of their respective classes within the same degree program. In a previous study by the author of this thesis and colleagues (Moore, Ploettner & Deal, 2015), the DP-EMI was conceptualised as two

separate activity systems (see Figure 1), inspired by third generation cultural historical activity theory (CHAT) (Engeström, 2001).

Third generation CHAT, which has frequently been used to frame studies of organizational learning, has its origins in Vygotsky's conceptualization of learning. Vygotsky recognized both the social aspect of learning and the uniquely human ability to use mediating artefacts, such as signs or tools, to manage learning behaviour. Activity theory was derived from this work and applied to the study of isolated activity systems by Yrjö Engeström (2001). Activity theory contemplated the subject, object and tools which interact in the activity system, along with the community within which it is situated, its division of labour, and rules and regulations. Third generation CHAT takes as the unit of analysis groups of interacting activity systems. This shift in focus to the interactions between networks of activity systems led to the study of boundary crossing and boundary objects in the area between activity systems, phenomena which are relevant to the study of development partnerships for EMI (referred in Figure 4.1 as DPs).

Figure 4.1.[3] Content and language instruction as meeting at the boundaries of English medium instruction (Adapted from Moore, Ploettner & Deal, 2015, p. 92)



Engeström (2001) initially summarized five principles of third generation CHAT in the following way: Firstly, the prime unit of analysis shifts from one collective, artefact-mediated object-oriented activity system to a network of two or more systems. Secondly, multi-voicedness is contemplated, in that the varied points of view of participants are considered, with each participant's position determined by the division of labour and historical development of artefacts and rules within the activity system they form part of. Thirdly, historicity is considered as the development of a given activity system and its object over time, including the historical development of the theoretical ideas and tools over time. Fourthly, third generation CHAT proposes the importance of contradictions

[3] In order to make it easier for the reader to navigate to the figures or fragments when cross-referenced, numbered figures and numbered fragments are indexed with a two-digit number, with the first number indicating the Chapter within which a given figure or fragment is located. Thus, figure 4.1 is located in Chapter 4.

for change and development. Contradictions are differentiated from conflicts or problems and identified as historically accumulating tensions within and between activity systems which carry the potential for creating innovative changes in the activity. Finally, third generation CHAT addresses the possibility of expansive transformation, in which the object of the activity itself is transformed. Expansive transformation is proposed by Engeström (2001) as "a collective journey through the zone of proximal development of the activity" (p. 137).

In the case of EMI teacher development partnerships (DP-EMI) involving one content specialist and one language specialist, both complex activity systems were conceived as being comprised of the interactions between different disciplinary traditions, different roles within the institution and different relationships with institutional requirements. Taking the two activity systems as the unit of analysis permitted the study of the intersection or third space (Akkerman & Bakker, 2011) between them. The DP-EMIs were therefore both a practical initiative to promote boundary crossing, the bridging between intersecting practices, and a site for exploring the processes of professional development. DP-EMIs facilitate interdisciplinary, dialogical knowledge in relation to the shared object of English medium instruction. The scrutiny of interactions at this boundary offers opportunities to study participants' worldviews of EMI, the negotiation of the DP-EMI process, and epistemic positioning with respect to EMI. Additionally, these views and stances can be traced and potentially restructured and transformed. Akkerman and Bakker (2011, p. 146) point out that the learning potential of boundary crossing includes that of transformation, which begins with confrontation with a difficulty, forcing reconsideration of present practices and interrelations, leading to the recognition of a shared problem space, and facilitating the creation of new hybrid practices and their consolidation, achieved through continuous joint work at the

boundary. Chapter 9 examines and compares interactional data from the beginning and the end of the DP-EMI under study. Comparison of this data reflects differences in the content specialist's stance toward the use of plurilingual practices, suggesting the possible transformative potential of the DP-EMI.

The notion of boundary objects (Star, 1989; Star & Griesemer, 1989), being the material or conceptual mediating tools that bridge boundary practices, also contribute to the conceptualization of DP-EMI. Such boundary objects encompass material tools facilitating interdisciplinary dialogue, but may also be more abstract tools such as specific conceptual and methodological knowledge. Interactions in the DP-EMI presented in this dissertation are mediated by different material artefacts. These include an official written document outlining the roles of the participants in Chapter 6, a written EMI lesson plan document in Chapter 7, or video recorded documents of EMI classroom interaction in Chapter 8. Chapter 9 offers a summary of the participation of these artefacts in the accomplishment of different social actions.

On a practical level, the DP-EMIs were conceived within a rationale of reciprocity and mutual development. The role of the expert in teaching English as an additional language, as was made available in a written brochure to participants at the beginning of the experience, was:

- to help identify aspects of their peers' English that need development and to offer linguistic support and suggestions for self-improvement;
- to help identify aspects of their peers' performance as a teacher in English in need of development and to propose methodological strategies and insights from their own experience of managing second language classrooms;

• to draw on their peers' expertise in the teaching of academic content for the improvement of their own classroom practice and the development of relevant and up-to-date teaching/learning materials.

The role of the expert in teaching academic contents a priori was:

• to share their expertise in the academic content for the improvement of their peers' classroom practice and their development of relevant and up-to-date teaching/learning materials and methods;

• to help identify aspects of their own English that need development and to be open to receive linguistic support and suggestions for self-improvement;

• to help identify aspects of their own performance as a teacher in English in need of development and to be willing to try out new methodological strategies for managing second language classrooms.

The presentation and interpretation of this written document, along with an analysis of its role as a mediating artefact in the negotiation of the roles of the participants, is studied in Chapter 6.

The duration of the DP-EMI was limited to one semester, but could be extended depending on participants' commitment and their on-going priorities. Participants were instructed to meet face-to-face for up to 10 hours (usually 10 meetings) within the same semester, at a time and place agreed on by the members. It was the responsibility of all members to arrange meetings, to attend them punctually, and to keep track of the time spent. The content specialist could request that the English language specialist revise teaching materials written in English for up to 10 hours within the semester, but the content specialist role did not include corresponding extra hours dedicated to the revision of the English language teachers' materials. At the beginning of the experience, participants were encouraged to observe their partner's classes and to conceive of the DP-

EMI as an opportunity for collaborative action research. Face-to-face sessions were planned to be dedicated to tasks directly related to teaching. Other language-related tasks such as writing emails, revision of articles written in English, or preparation conference presentations did not form part of the officially sanctioned content of the sessions. Thus, on a practical level DP-EMI provided a space for the planning, delivery, and observation of EMI and ICLHE classes. On a deeper, theoretical level they were conceived of as providing opportunities for self-development and a grassroots, participatory way of driving educational theory and advancement.

4.3 The participants

In this section, a description of the two participants in the DP-EMI under study in this dissertation is presented. The first participant is an English language specialist (LS), who is also the researcher and author of this dissertation. She is a trilingual (Catalan, Spanish and English) English language teaching specialist with a master's degree and doctoral studies in the teaching of language and literature, as well as undergraduate degrees and extended experience in health science. She is a member of the language service at the university, and has extensive experience teaching content and language integrated subjects (research design and applications in health sciences) in English within the health sciences faculties. Her participation in the DP-EMI process was voluntary. She had no previous training in EMI teacher development and her orientation to the EMI teacher development process consisted of the contents of the brochure introduced in the previous section (see also Annex 3), with a brief outline of the overall objectives of the process and roles of the two experts. Departmental activities of the language service at the time of this study included the development and teaching of content and language integrated

subjects, whereas collaboration with content specialists for EMI had begun the previous year.

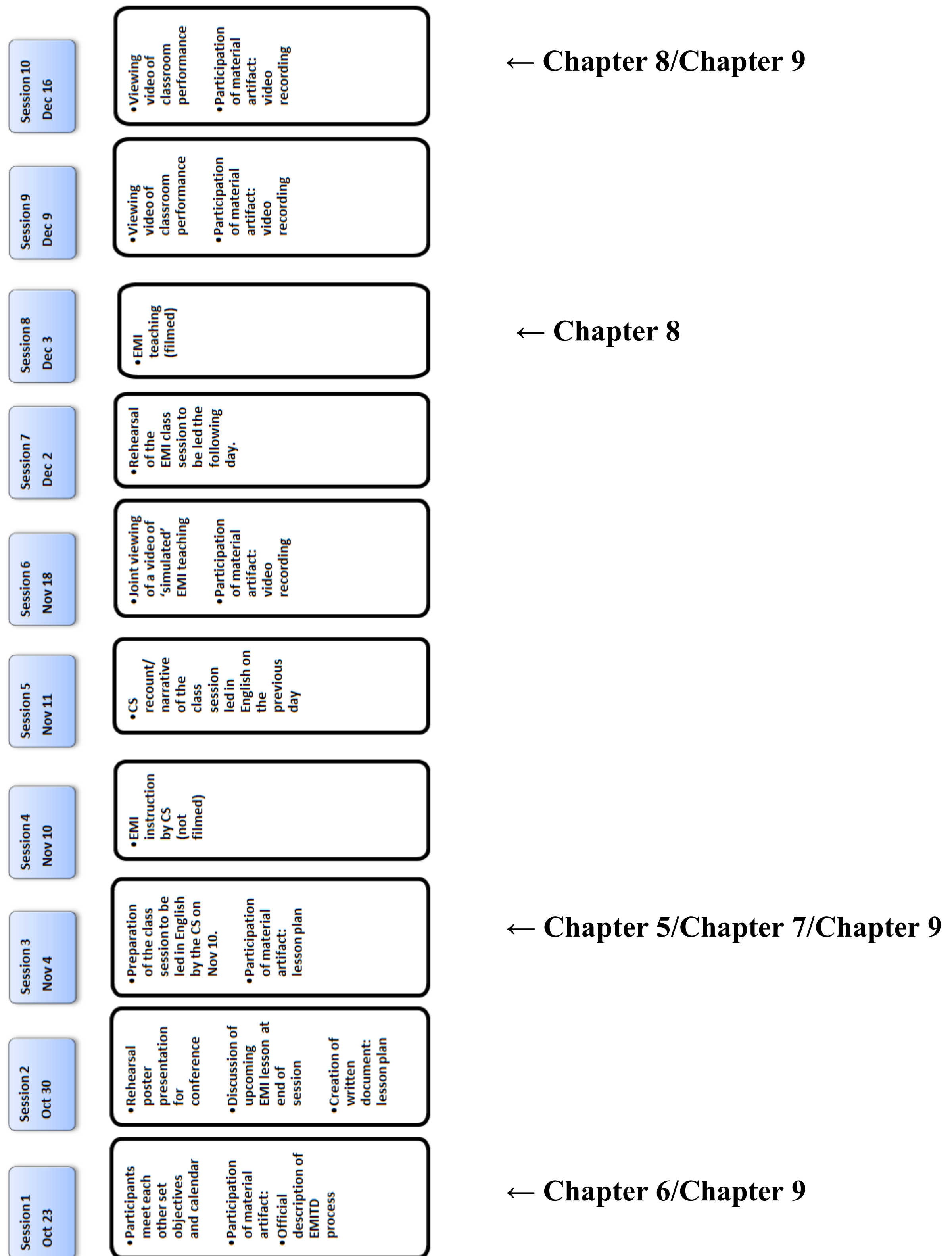
The second participant is a content subject specialist (CS), a junior researcher from the department of regenerative medicine. Her department was mainly dedicated to regenerative medicine research for dentistry, with the teaching of related subjects in a master's degree in research for dentistry as a secondary responsibility. Her academic background included undergraduate degrees in dentistry and biology and a master's degree in genetics. At the time she was enrolled as a doctoral student and actively participated in departmental research projects regarding regenerative medicine applied to the field of dentistry. She was a novice teacher with no previous experience in teaching content subjects or in teaching in English. Her previous English training was in secondary education and a one-month stay in Ireland. She held no official certification of English competency level, but in the following year passed a B2 certifying exam. Her previous experience using English for communication in professional settings included a poster presentation at an international conference, and a second poster presentation in English was collaboratively prepared in the course of the dialogic process under study. The decision to take on EMI teaching responsibilities was not made by her, but by the head of her research team and her department. She was given relatively short notice (one month) to prepare EMI class sessions about presenting a scientific poster and research methods in microbiology.

4.4 The EMI teacher development partnership

In this section, the DP-EMI under study in this dissertation is presented. Although originally conceived of as a reciprocal, open-structured process for mutual development, the planned process was re-interpreted and transformed by the participants, as will be

presented in Chapter 6. The immediate negotiated goal of the 10-session process was to support the preparation of EMI sessions within a master's degree program in research in dentistry, with the more general objective of supporting the development of content specialist EMI expertise. The process involved 10 face-to-face sessions which took place between October and December of 2013, the content of which included the setting of objectives, EMI lesson planning, EMI lesson rehearsal, EMI classroom teaching, and joint observation of EMI classroom teaching. One session was also dedicated to the rehearsal of a poster presentation in English for an upcoming conference. Despite the fact that both participants are fluent speakers of both Catalan and Spanish, the medium of communication between them was principally English, the L1 of the language specialist, and an additional language for the content specialist. The possibility of holding the sessions in Spanish or Catalan was not contemplated in the negotiation of the process, although instances of unmarked use of Spanish or Catalan by both participants occur at numerous points in the interaction. A diagram of the process studied in this dissertation including the main focus of each of the sessions is presented in Figure 4.2. The arrows indicate where the data is drawn from for the analysis in Chapters 5 to 9.

Figure 4.2: Sessions and content of the DP-EMI process.



4.5 Data collection and analysis

The data corpus is comprised of 11 hours of video-recorded data collected during one EMI teacher development process in 2013. After obtaining written informed consent using the protocols established by the Research Centre for Plurilingual Teaching and Interaction (GREIP) (see http://grupsderecerca.uab.cat/greip/en/content/greip-research-protocol; see Annex 1 for a copy of the consent form used) and using the consent form approved by the institution, video data were recorded of meetings and classroom teaching during a partnership process dedicated to the preparation of the content lecturer's instruction in English. After repeated viewing of the video recordings and initial content analysis, data was selected for transcription following conversation analytic conventions (see Annex 2 for transcription notation). Other relevant data included written documents such as the official descriptive brochure of the training process and an EMI lesson plan elaborated during the process (see Annex 3 and Annex 4 for a copy of the complete official document describing the process and the complete lesson plan)

4.6 Data selection

The interactional data fragments analyzed in the following chapters were selected based on salient phenomena emerging from the initial revision of the whole corpus. The fragment for Chapter 5, which focuses on members' identities and shared worldviews of EMI comes from Session 3. The fragment was selected because it reflects a common contradiction which emerges when content teachers teach their subject matter in English: that of maintaining classroom communication in English when both the teacher and the students share an L1 other than English. For Chapter 6, which focuses on the initial participation frameworks and negotiations, three fragments of negotiation sequences were chosen from Session 1 of the DP-EMI process. In order to analyze how planned teacher

development processes are interpreted in implementation, data for Chapter 6 also includes a part of the 3-page written document which gives a general description of the partnership process and the roles of the participants. For Chapter 7, which focuses on the interactional accomplishment of EMI expertise, three sequences from Session 3 were chosen in which opportunities for the interactional accomplishment of EMI expertise were created. Data presented in Chapter 7 also include an EMI lesson plan document, which mediates the interaction in one of these sequences. For Chapter 8, which presents a heuristic model for the study of the interactional accomplishment of EMI expertise, two interactional sequences of EMI teaching were drawn from Session 8 and two interactional sequences were selected from Session 10 during shared video viewing of the classroom interaction sequences. The shared viewing sequences were chosen to exemplify how coding, highlighting and assessment participate in the interactional accomplishment of EMI expertise. Finally, in Chapter 9 analysis of the transformative potential of the DP-EMI process focuses on data drawn from Sessions 1 and 10, while analysis of the role of material artefacts focuses on data drawn from Sessions 1, 3 and 10.

4.7 Data analysis

For each of the chapters the process of analysis involved initial repeated unmotivated viewing (Maynard, 2013, p. 18) of the video and revision of the transcript, first with an initial turn-by-turn analysis of the interaction and subsequent analysis of emerging social actions. The video recordings and the transcripts were also revised and discussed in data sessions with other researchers experienced in CA. Analysis for Chapter 5 was framed by membership category analysis (MCA) and transcripts include talk-in-interaction alone. The majority of the remaining transcripts in Chapters 6, 7 and 8 were examined from the perspective of multimodal (or embodied) CA. This process involved close examination

of talk, gaze, gesture, and body position in the joint creation of meaning in interaction. The incorporation of gaze and gesture into the analytical frame obliged the inclusion of the material world toward which these embodied actions were oriented. Analysis in Chapter 6, which focuses on the initial negotiations of the roles of participants and the process itself, is framed by participation status and participation frameworks. Epistemics-in-interaction is used to examine interactional sequences which create opportunities for the accomplishment of EMI expertise in Chapter 7. The analysis of shared video viewing of classroom interaction in Chapter 8 is framed by the notions of enactment of expertise, professional vision and epistemics-in-interaction. In Chapter 9, analysis of the transformative potential of the EMITD process and the role of material artefacts is framed by Moore, Ploettner and Deal's (2015) conceptualization of the DP-EMI as two interacting activity systems of teaching content in English and teaching English through content. In all cases the analysis was revised by other informed experts as well as the content specialist who participated in the development partnership under study.

4.8 Chapter summary

In summary, this chapter presented methodological aspects of the dissertation. Contextual information included the institutional setting of the study along with an explanation of EMI teacher development partnerships (DP-EMI) and their theoretical foundations in third generation Cultural Historical Activity Theory. This was followed by the presentation of the particular case of DP-EMI which is examined in this dissertation. This presentation included a description of the participants and the organization and contents of the sessions which comprised the process. Finally, data collection, selection and general analytic approach were explained. The different theoretical and methodological

frames which inform analysis in Chapters 5 to 9 have been listed, but they will be explained in more depth in the following chapters in which they are used.

Chapter 5

Focus on shared worldviews of EMI

This and the following chapter (Chapter 6) aim to answer the research question: *How is a teacher development process for English medium instruction co-constructed in interaction?* Specifically, this first chapter focuses on participants' shared worldviews regarding EMI and teacher and student identities and linguistic practices. The analysis sheds light on the particular difficulties faced by EMI teachers when both teachers and students share an L1 other than English. Membership Category Analysis (MCA), an analytical approach originally proposed and developed by Sacks (1972), frames the study of identities of the EMI teacher and students and the shared worldview of EMI as reflected in interaction. In order to contextualize the results and analysis, pertinent language policy and language preference issues are presented in Section 5.1, followed by an overview of membership category analysis in 5.2. The data transcription and analysis are then presented in Section 5.3 . The chapter closes with a discussion of the major results for this first analysis in Section 5.4.

5.1 Language policy and language preference issues

Despite the fact that research at different educational levels over the last several decades supports the use of L1 in teaching and learning situations mediated by a second language (L2) (Cummins, 2007; Heller, 1999; Moore, 2016; Nussbaum, Moore & Borràs, 2013), teaching and learning models in many contexts are founded on persistent monolingual ideologies (Heller, 1999). Such monolingual ideologies imply didactic models based on the implicit or explicit exclusion of linguistic resources besides the language of instruction. When translated to EMI, the assumption is that subjects should be taught exclusively in English in order to prevent L1 interference with L2 language learning

(Cummins, 2007). Monolingual models assume that 'native-like' proficiency in the language of instruction is a desirable condition for, and outcome of, teaching and learning practices. Such 'nativeness' is a highly problematic category, as discussed by critical language scholars including Pennycook (2012); yet it is a category to which the participants orient in this study.

Monolingual teaching and learning models have been contrasted with plurilingual perspectives. In this section, plurilingualism will be the term used for an educational approach that, while recognizing the importance of exposure and use of the target language, values the use of other languages in scaffolding learning. Instead of viewing languages other than the medium of instruction as an obstacle for teaching and learning, a plurilingual approach emphasizes the added value of expanded linguistic repertoires for building emerging competences (Cenoz & Gorter, 2011; Gajo, Grobet, Serra, Steffen, Müller, & Berthoud, 2013; Lin, 2006; Moore, 2016; Nussbaum, 2014). Research in different higher education contexts in which English has been introduced as the language of instruction has supported the coexistence of English and other languages in EMI classrooms (Llompart, Masats, Moore & Nussbaum, 2019; Moore, Nussbaum & Borràs, 2013; Moore, 2014, 2016; Söderlundh, 2013; van der Walt, 2013). Yet, at the time of this research, language policies in the context under study did not recognize the existence of such practices or their value for teaching and learning.

In this regard, the notion of language preference is relevant to understanding the findings of this section. Extensive research regarding the phenomenon of codeswitching in non-classroom bilingual and plurilingual speech has referred to the notion of language preference, including the work by Gumperz (1982), Auer (1984, 1998), and Gafaranga and Torras i Calvo (2001). Auer (1984) discussed a 'preference for same language' rule in bilingual encounters in negotiating a single base or default code of interaction, often

determined by speakers' competence. Critical of this postulation, Gafaranga and Torras i Calvo (2001) speak of the availability in bilingual and plurilingual encounters of various configurations of linguistic resources that might fluidly constitute a plurilingual code – or what they call medium – of a particular interaction. According to them, participants may or may not prefer to use just one language or even the same language, depending on the context of their encounters (see Moore, 2017, for an extended discussion). In this study, which involves plurilingual speakers who share L1s other than English and who frequently codeswitch outside of the classroom, the use of English as the sole medium of instruction in the EMI setting is not necessarily a users' preference, but is contingent on an institutional prerogative. As the data presented in this section reveal, participants in EMI may display other preferences that call monolingual teaching and learning models into question.

5.3 Membership category analysis

This chapter will analyze interactional data collected during the first meeting (see Figure 4.2) between the content specialist and the English specialist in the context of planning an upcoming EMI lesson. As noted by other scholars (Schegloff, 2007b; Stokoe, 2012), the lens of membership category analysis (Sacks, 1972), henceforth MCA, affords an understanding of how interpersonal processes unfold in talk-in-interaction, and in particular in terms of how categories are developed and mobilized in constructing common worldviews. This chapter explores how participants negotiate the locally organized institutional context, and understand and account for the actions of different participants. An exhaustive description of MCA is available elsewhere (Antaki & Widdicombe, 1998), but the following is a summary of its major features.

The foundations of MCA have their origin in the ethnomethodological proposal by Harold Garfinkel (1967) that social life is a continuous display of people's understandings of what is occurring. This was further extended to the area of verbal interaction by Harvey Sacks (1972). Sacks' work on membership categorization and subsequent development by other authors provides accounts of members' methodical practices in displaying their understandings of the world and of the commonsense routine workings of society (Antaki & Widdicombe, 1998; Stokoe, 2012; Schegloff, 2007). MCA is based on the identification of how membership categorization devices (MCD) are constructed and used in talk-in-interaction. Sacks theorized the MCD as an apparatus composed of collections of categories that 'go together', along with their associated rules of application. The MCD serves as an apparatus for producing and understanding descriptions of people, where any single person can be classified according to a multitude of categories. Within the conversational framework, participants invoke categories to perform different social actions, such as aligning with other members, differentiating themselves from others, accounting for unsanctioned behavior, etcetera. For this reason, MCA involves not only recognition of the categories oriented to, displayed or attributed by members, but also the procedural consequences of their deployment within the interactional segment.

Grouping of categories into collections, such as the categories of 'teacher' and 'student' in the categorization device of classroom participants, or 'native' speaker and 'non-native' speaker in the categorization device of linguistic identity, has been said to reflect shared common sense knowledge (Hester & Eglin, 1997). Therefore, studying such categorizations and their devices in context may offer an understanding of the commonsensical framework of members' methods of practical sense-making, for a deeper understanding of the talk-in-interaction.

Associated with categories are sets of attributes and category-bound activities, that is, activities which are expected to be performed by members of a given category, and whose lack of performance is accountable. For example, with respect to language preference among plurilingual speakers, individuals can choose from the various media and modes of communication at their disposal, and the normative medium of communication would be expected to be a bilingual medium in which unmarked codeswitching is frequent.

Membership categorization is dynamic, indexical and occasioned. Categories are not fixed, but rather constructed in interaction. The indexical characteristic of membership categories is exemplified in this chapter by an understanding that the category 'EMI student' may be associated with the obligation to speak exclusively in English at some points of the interactional flow, while it may be associated with the possibility of speaking in other languages at other points. The occasioned aspect of categories, on the other hand, is reflected by an understanding that what a participant means when they refer to a category such as 'non-native' speaker or 'EMI teacher' must be explored by looking at the interactional flow in which the category is made relevant (Antaki & Widdicombe, 1998).

As in other MCA studies in institutional settings (see, for example, Dooly, 2009; Drew & Heritage, 1992; Evans & Fitzgerald, 2016), this section focuses on an extended analysis of a single interactional event in order to examine the way categories are layered and intertwined within social actions as part of institutional work. In this case, the institutional work occurs within the interdisciplinary collaborative process described in Section 4.4, with the objective of helping the content subject expert prepare for her EMI classes.

5.3 Data and analysis

The data fragment presented in this section was selected as it reflects a common contradiction which emerges when content teachers teach their subject matter in English: that of maintaining classroom communication in English when English is an L2 for both the teacher and the students and who share other L1s. Membership categorization analysis was then carried out. An initial analysis of the social actions carried out in interaction was followed by revision of the transcript for the categories which were made relevant by the participants. After identification of the categories of ‘student’, ‘teacher’, and ‘non-native speaker’, the transcript was again examined to identify the category-associated features, and the procedural consequence of the orientation to each category.

As has already been explained in Chapter 4, the fragment presented below occured at the end of Session 3 of the DP-EMI (see Figure 4.2), a 50-minute meeting in which talk centered on the planning of an EMI class to be taught the following week by the content teacher. A previous EMI class had been led by a different teacher from the department of regenerative medicine, referred to in the data as content specialist 2 (CS 2). The two participants were the content specialist (CS) and the language specialist (LS). During this meeting, discussion centered on a written document, a lesson plan generated at the end of the previous development partnership session. The LS had typed the document and brought it to the session under study (see Annex 4 for the entire document). At the beginning of this fragment the two participants are sitting at a table with the document lying in front of them on the table at which they are seated. The LS has asked the CS regarding her plans for the upcoming EMI lesson. As she begins to speak, the CS is looking at the document in front of her. The entire fragment will be presented here, and will subsequently be broken down for close analysis of different aspects.

Fragment 5.1

```
1    CS   maybe i:i (.) have to
2         organitzise uh the class
3         an:nd (.) have [so:ome organization.
4    LS                  [well you're going to have to organize
          yourself.
5         ↑↓oh [yes definitely.
6    CS        [yeah
7         and this parts
8         ((gestures to papers))
9    LS   yeah. if you decide on any s-(.) if you develop
          sli:ides or powerpoint any (.)
10        cause [(.) this class will be exclusively in english
          correct?
11   CS         [yeah
12        yeah
13   LS   so: [o-
14   CS   but [sometimes ((name of CS2)) say me that they speak
          in spanish because ehh-
15   LS   >yeah<
16   CS   all the people are from (.) here
17   LS   here ◦right◦
18        [and yo:u're-
19   CS   [xxx very stupid
20        and then the teacher have to mmm talk to talk [speak in
          english
21   LS                                                 [yeah
22   CS   and also the students
23   LS   umm hmm
24   CS   but everybo:dy ◦speaks spanish◦@@
25   LS   ri:ght. ri:[ght.
26   CS              [and
```

27		the students ask the questions in spanish [sometimes and-
28	LS	[mmmhmmm
29	LS	because you're not a native speaker.
30	CS	°yea:h°
31	LS	yeah
32	CS	(very) difficult to maintain the english (.)[language all time
33	LS	[all the time
34	CS	[all two hours
35	LS	[yeah one-
36		right yeah. yeah. yeah. i can understand that
37	CS	°yeah°
38	LS	ok
39	CS	i try to: (.) i will try to: (.) uh explain all in ↑english
40	LS	mmmhmmm
41	CS	but
42		maybe [they ask me in spanish
43	LS	[good
44		[of course yeah that’s fine
45	CS	[xxx@@@@
46	LS	i think what- at least what you could try:y to do
47	CS	yea:h
48	LS	do you think you would be able to only speak in english?
49		[(the whole) class?
50	CS	[i don’t kno::w
51		if (.)the (.) [people::e
52	LS	[or try to-
53	CS	yeah i- i- (.) yes
54	LS	xxxx (for me it’s an issue)

55	CS	for me maybe it’s better to (.) °to do the class in english but°-
56	LS	°yeah°
57	CS	they say that (.)
58		it’s like it’s an a stupid thing
59	CS	but because people eh talk to you in ↑spanish
60	LS	°right°
61	CS	and the students think that ehhh [why in english?
62	LS	[yeah
63		right right
64		well why get(.)why(.)what would you say to them?
65	CS	yeah
66	LS	what would you ↑↓say
67	CS	because the master is in english
68	LS	cor[rect
69	CS	[it’s a master [in research
70	LS	[completely
71	CS	mmmm (.) i think that they have some subjects in spanish
72		because the teacher uhh
73		no don’t [speak english
74	LS	[doesn't speak english [right↓
75	CS	[yeah
76	LS	but theoretically it’s in english
77	LS	and they should be practic[ing their english right?
78	CS	[yeah yeah
79		and i think that they have to present a poster in english
80	LS	>i'm sure they do<
81	CS	yeah yeah
81	LS	yeah

The categories of ‘EMI student’, ‘EMI instructor’ and ‘not a native speaker’ are made relevant by the participants in various sequences of the fragment above. The analysis presented in the following three sub-sections will examine each of these categories, their category-associated characteristics in terms of expected language use in the classroom, and the procedural consequences of their being referenced in the interaction. The results of the analysis are also presented in Figure 5.1, at the end of the chapter.

5.4.1 The category of ‘EMI student’

As can be observed in Figure 5.1, three category-bound characteristics emerged out of close analysis of the category of EMI student within the interactional fragment. Within the fragment the category of EMI student was associated with the use of Spanish in the EMI classroom; a questioning attitude toward the use of English in the EMI classroom; and the obligation to speak in English in the classroom. Analysis of the category of EMI student, its category-bound characteristics and its procedural consequences within the interaction are presented in this section.

Referring back to the sequence presented above, the category of EMI student is made relevant in lines 27, 42 and 59, where it is associated with the use of Spanish in the EMI classroom.

```
27   CS   the students ask the questions in spanish sometimes
42   CS   maybe they ask me in spanish
59   CS   people eh talk to you in spanish
```

The CS contrasts students’ use of Spanish in the classroom with her own intention to ‘explain all in English’ at line 39.

```
→ 39   CS   i try to: (.) i will try to: (.) uh explain all in
            english↑
  40   LS   mmhmmm
  41   CS   but
  42        maybe [they ask me in spanish
```

A non-committal continuer, “mmhmmm”, at line 40 on the part of the LS is followed by the marker of contrast ‘but’ at line 41, suggesting an incipient declaration of exceptions to the intention to explain ‘all’ in English. The contrast marker prefaces an account at line 42, ‘maybe they ask me in Spanish’. Deviation from the CS’s declared intention to explain everything in English is accounted for at line 42 by the students’ use of Spanish to ask questions.

A similar sequence begins at line 55.

```
55   CS   for me maybe it’s better to (.) ∘to do the class in
          english but∘-
56   LS   ∘yeah∘
57   CS   they say that (.)
58        it’s like it’s an a stupid thing
59        but because people eh talk to you in ↑spanish
60   LS   ∘right∘
61   CS   and the students think that ehhh [why in english?
```

At line 55, in response to a previous LS question at lines 48 and 49 regarding her ability to “only speak in English” the CS again expresses her opinion “for me”, that “it’s better” to “do the class in English”, mitigated by a conditional marker ‘maybe’: “for me maybe it’s better to to do the class in English but-.” The contrast marker ‘but’ again suggests an incipient declaration of the possibility of deviation from the intended use of English in the classroom. An LS acknowledgement at line 56, “yeah”, is followed by a reference to students’ negative assessment of the use of English in the classroom at lines 57 and 58,

"they say that it's a stupid thing". As in the previous example, an incipient declaration of the possibility of deviation from the intention to do the class in English is followed by an account referring to the students' use of Spanish at line 59, "because people eh talk to you in Spanish", and explicit reference to student questioning of the use of English at line 61, "and the students think that ehh, why in English"

In summary, the LS expresses her intention to use English exclusively in the EMI classroom. An incipient declaration of the possibility of deviation from this intended behavior is suggested by the presence of markers of contrast and the presence of a account for this deviation. In both cases the CS accounts for the deviation from the exclusive use of English by making reference to the students' use of Spanish in the classroom. At no point is the possible deviation from English attributed to a conscious decision on the part of the CS. As will be seen in Chapter 9, this contrasts markedly with data collected in the final DP-EMI session during shared video viewing of EMI classroom interaction.

An account for why students use Spanish in the EMI classroom begins at line 14, in response to a previous LS question at line 10:

```
10   LS   cause [(.) this class will be exclusively in english
          correct?
```

The turn design of this polar question anticipates an affirmative response (Heritage & Raymond, 2012), which is provided initially by the CS at line 12, 'yeah', but subsequently repaired at line 14.

```
14  CS  but [sometimes ((name of CS2)) say me that they speak
        in spanish because ehh-
15  LS  >yeah<
16  CS  all the people are from (.) here
```

Use of Spanish in the EMI classroom is accounted for by the CS with the explanation at line 16 that 'all the people are from here'. If the deictic 'here' is a geographical reference to the local region where Spanish and Catalan are spoken, within the interactional context the explanation 'all the people are from here' may be interpreted as an indirect reference to a shared L1. As stated previously, studies regarding bi- and plurilingual communication indicate that the use of a single base code – in this case English, as defined by the EMI classroom context – may not always be the preferred norm, and in this case, the availability of Spanish or Catalan as a shared linguistic resources among the classroom participants offers other alternatives for the medium of their interaction.

As suggested previously, aside from the use of Spanish in the EMI classroom, the category of EMI student is additionally associated with a negative assessment and a questioning attitude toward the use of English in the given classroom context, as can be seen in the extract below:

```
55  CS   for me maybe it's better to (.) °to do the class in
         english but°-
56  LS   °yeah°
57  CS   they say that (.)
58  CS   it's like it's an a stupid thing
59  CS   but because people eh talk to you in ↑spanish
60  LS   °right°
61  CS   and the students think that ehhh [why in english?
62  LS                                    [yeah
63  LS   right right
```

The negative assessment that doing the class in English is "a stupid thing" at line 58 followed by the questioning attitude, "why in English?" at line 61, is associated with the category of EMI student (and *not* the category of the teacher, for whom "it is better to do the class in English", at line 55). Questioning of the use of English is thus made through reported speech, as "they say that it's like it's a stupid thing". This use of reported speech

seems to reflect what has been referred to by other authors as 'double voiced discourse' (Bakhtin, 1934, p. 681) or the distinction made by Goffman (1981, p. 226) between the principal versus the animator, where the voice of the principal (the students) is delivered through the voice of the animator (the CS), who appropriates the reported discourse for his or her own purposes in the interactional context. In the current context, the content specialist appears to use the students' voice to express a negative assessment and a questioning attitude toward the sole use of English in the context, while at the same time maintaining her own intention to avoid the unsanctioned behavior of using a different language.

A third category-bound feature of EMI student is related to the obligation to use English in the classroom. Reference to this characteristic initially occurs in lines 14-27 in which the CS explains what happens in EMI classes through reported information. Within this sequence the category ' EMI student' is associated with the obligation to speak in English, expressed with the term 'have to' at lines 20-22, when the CS makes relevant the obligation of both teacher and students to speak in English in the EMI classroom.

```
   20   CS    and then the teacher have to mmm talk to talk [speak
              in english
   21   LS    [yeah
 → 22   CS    and also the students
```

The LS's orientation toward the EMI student category-associated feature of the obligation to use English in the classroom varies during the interaction. When the CS mentions the students' use of Spanish in the classroom at line 42 within the context of an explanation of her personal intention to speak exclusively in English, the LS's response at lines 42-43 not only acknowledges this idea, "of course", but ratifies it, "yeah that's fine", accepting the possibility that students use Spanish in the classroom:

```
→  42   CS   maybe [they ask me in spanish
   43   LS         [good
→  44   LS   [of course yeah that's fine
```

This orientation contrasts with line 77, when interactional work shifts the focus of the interaction from the CS's difficulty to carry out the class in English to the need to use English in the classroom. Within this sequence the LS makes relevant the students' moral obligation to use English as a category associated responsibility at line 77:

```
77  LS   and they should be practic[ing their english right?
78  CS                             [yeah yeah
79       and i think that they have to present a poster in english
```

Close examination of the interactional contexts within which these assessments occur and the interactional work being performed in each context explains this discrepancy. Whereas the positively-valenced LS assessment of students' use of Spanish at line 43 occurs within a troubles telling sequence by the CS, and arguably performs an affiliative empathetic response (Lindström & Sorjonen, 2013) on the part of the LS, the orientation toward the students' moral obligation to be practicing their English at line 77 occurs within the context of the CS's reference to the existence of other subjects in the master's program not taught in English. Topicalization of this information opens up the possibility that the CS might not be obliged to teach in English. This action is countered by the LS's orientation toward the students' responsibility to practice their English in the subject taught by the CS.

In summary, although the category of 'EMI student' is associated with the obligation to speak in English to a greater or lesser extent, it is also associated with the introduction of Spanish into the classroom and with a questioning attitude toward the use

of English in this specific EMI context. The category is used by the content specialist to justify possible deviations from the exclusive use of English in her classroom, and to express doubts regarding the use of English in the classroom context, through the voice of others.

5.4.2 The category of 'EMI instructor'

In this section the category-associated characteristics and the procedural consequence of the category of EMI instructor are examined. The characteristics associated with the category of EMI instructor are the responsibility to speak in English in the classroom and to monitor and encourage student use of English. Figure 5.1 at the end of this chapter provides a visual representation of the analysis provided in this section.

On one hand, the category of EMI instructor is associated with the obligation to speak in English. The CS refers to this obligation at line 20:

```
20  CS  and then the teacher have to mmm talk to talk [speak in
        english
```

The obligation to speak in English is also implicit in questions posed by the LS at line 10:

```
10  LS  cause [(.) this class will be exclusively in english
        correct?
```

As explained previously, turn design of this polar question anticipates an affirmative response in support of the exclusive use of English by all class members.

On the other hand, the CS assesses the obligation to maintain the exclusive use of English ("all the time") as difficult at line 32. Linguistic repair by the LS at line 33 is

followed by reformulation repair by the CS at line 34, in which “all time” is reformulated to “all two hours”.

```
32  CS   (very) difficult to maintain the english (.)
         [language all time
33  LS   [all the time
34  CS   [all two hours
```

The data reflects a tension between the teacher’s obligation to maintain the class in English all the time and the difficulty associated with maintaining the class in English “all two hours” (line 34). This difficulty is initially acknowledged by the LS in line 36.

```
36  LS   right yeah. yeah. yeah. i can understand that
```

However, in the subsequent interactional work in lines 48-49 the LS reintroduces the topic of the teacher’s obligation to speak exclusively in English. The question at lines 48-49 is essentially a request which requires the CS to evaluate her capability to only speak in English for the entire class.

```
48  LS  do you think you would be able to only speak in english?
49      [(the whole) class?
50  CS  [i don’t kno::w
```

The CS does not respond with a simple ‘yes’ or ‘no’, but effectively hedges through the use of the disclaimer “I don’t know”, at line 50. Her response at this point displays a doubtful position regarding her capability to carry out the class entirely in English.

A subsequent change in the CS's orientation occurs when, following a discussion of student assessment of the use of English in the classroom as "stupid", the LS ascribes the category of EMI instructor to the CS at line 64 and line 66:

```
→ 64   LS    well why get(.)why(.)what would you say to them?
  65   CS    yeah
→ 66   LS    what would you ↑↓say
  67   CS    because the master is in english
```

When the LS asks the CS to express what she would say in the situation of student resistance to use of English at line 64, she ascribes to the CS the category of EMI instructor. At this point the CS no longer orients toward the difficulties associated with maintaining the class exclusively in English, but rather responds with a reiteration of the obligation to use English in the classroom at line 67, "because the master is in English".

Later in the interaction, when the LS orients toward the assumption that the master's degree is entirely in English, the CS makes relevant the fact that some of the teachers in the master's program do not teach their subjects in English.

```
71  CS   mmmm (.) i think that they have some subjects in
         spanish
72       because the teacher uhh
73       no don't [speak english
74  LS            [doesn't speak english [right↓
75  CS                                   [yeah
76  LS   but theoretically it's in english
```

From a procedural point of view, this intervention by the CS at lines 71 to 73 could potentially have the function of justifying her resorting to the use of Spanish in the classroom (e.g. 'if they can do it, why can't I?'), but the LS does not orient to this incipient account. The existence of these 'exceptions' is not made relevant in the remaining part of

the sequence, lines 76 to 81, which orients toward the supporting reasons for using English in the classroom, as theoretically the subject is in English, the students have the obligation to practice their English, and, on a practical level, the subject requires the students to present a poster in English, as can be seen in the extract presented here.

77	LS	and they should be practic[ing their english right?
78	CS	[yeah yeah
79		and i think that they have to present a poster in english
80	LS	>i'm sure they do<
81	CS	yeah yeah
81	LS	yeah

In summary, the category of 'EMI instructor' is associated with the obligation to speak in English the whole class. Despite repeated orientation by the CS toward the difficulty associated with this responsibility, interactional work ends with a reaffirmation of the need to use English in the classroom.

5.4.3 The category of 'not a native speaker'

The category of 'not a native speaker', its category-bound features, and its procedural consequences are presented in this section. As represented in Figure 5.1 at the end of the chapter, the category of 'not a native speaker' is associated with the difficulty of using English exclusively in the EMI classroom and with the selection of mediums other than English in interactions in which interlocutors share an L1 other than English.

The category of 'not a native speaker' of English is explicitly referred to by the LS at line 29.

	27	CS	the students ask the questions in spanish [sometimes and-
	28	LS	[mmmhmmm
→	29		because you're not a native speaker.

```
    30  CS  °yea:h°
```

The LS here uses this category to account for the reported behavior of students asking the CS questions in Spanish at line 27. In the EMI context under study, both the students and the teacher are 'non-native' speakers of English, sharing Spanish, as well as Catalan, as an L1. The unmarked base code of communication between the teacher and the students, in the absence of other factors, would thus be Spanish or Catalan.

While the LS associates the category of 'not a native speaker' of English with the use of Spanish when speaking with other 'non-native' interlocutors, sequential analysis shows that the CS associates the category of 'not a native speaker' with difficulty in maintaining a class session exclusively in English (line 32).

```
→   29  LS  because you're not a native speaker.
    30  CS  °yea:h°
    31  LS  yeah
→   32  CS  (very) difficult to maintain the english (.)[language
            all time
```

After acknowledging the LS's ascription to her of the category of 'not a native speaker' at line 30, she orients toward the difficulty at line 32, thus offering an account for her difficulty to maintain communication exclusively in English. Interestingly, from an interactional perspective, the use of the personal pronoun 'you' at line 29 initiates a shift in the orientation of the interaction from a general discussion of reported difficulties to the discussion of personal difficulties and intentions marked by the introduction of personal pronouns 'I', 'me' and 'you' at lines 39, 42, and 48:

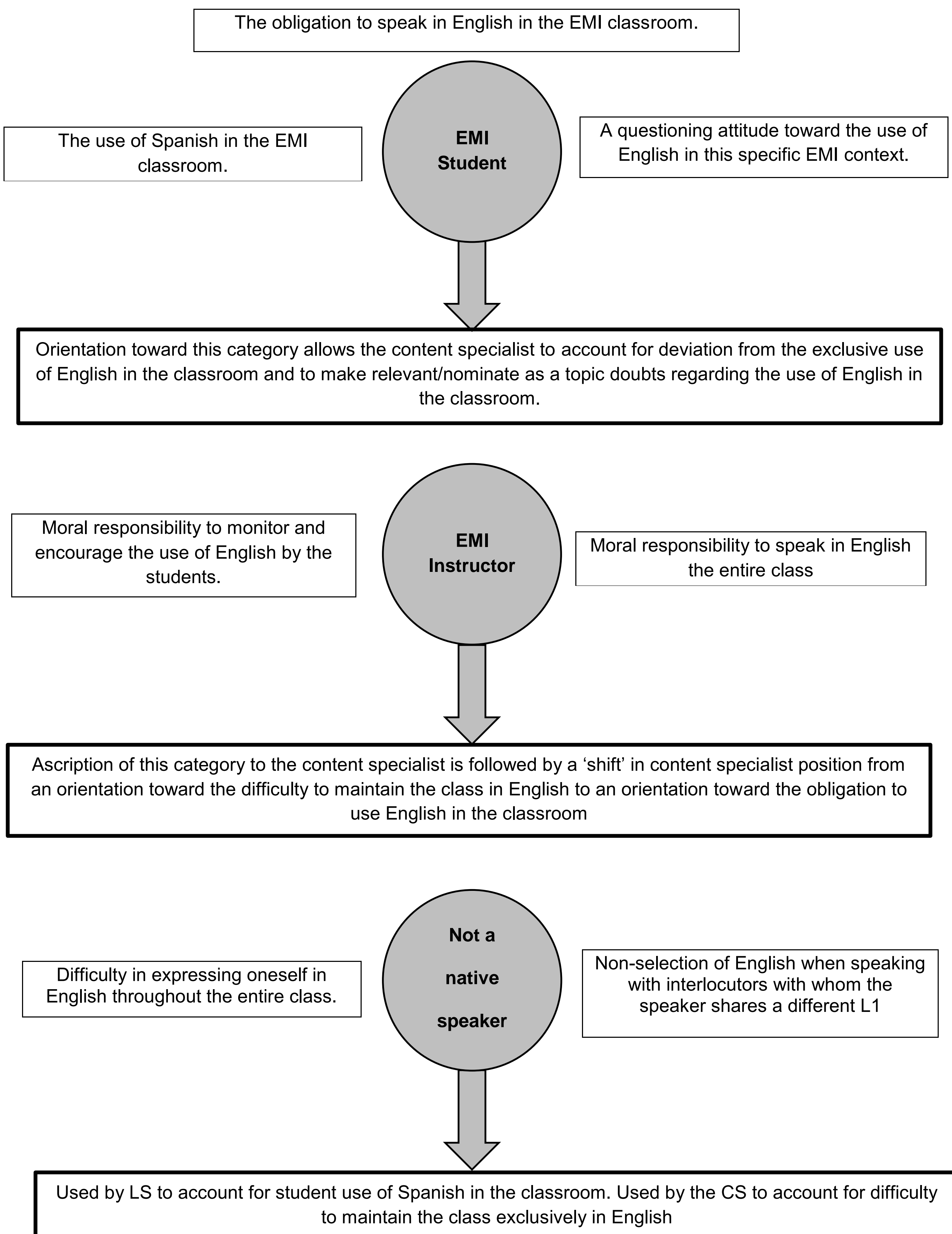
```
 39  CS   i try to: (.) i will try to: (.) uh explain all in
          english↑
```

```
42  CS   maybe [they ask me in spanish
48  LS   do you think you would be able to only speak in english?
```

With respect to category-associated features, the category of ‘not a native speaker’ is associated, on one hand, with the unmarked default use of Spanish when speaking with other ‘non-native’ English speaking interlocutors, and on the other hand, with difficulty in maintaining communication exclusively in English in the EMI classroom. This category is used by the participants, on one hand, to account for why the students resist the use of English when speaking with the teacher and, on the other hand, to account for the content specialist’s projected difficulty in being able to maintain the class exclusively in English.

The categories, category-associated features and procedural consequences of making them relevant in the interaction between the content and the language specialist, resulting from the analysis presented in this chapter, are summarized in Figure 5.1.

Figure 5.1. Membership category analysis: Categories, category associated features, procedural consequences



5.5 Discussion

The overarching principle reflected in the interactional work presented here seems to be that EMI involves the exclusive use of English, with the use of Spanish as an unsanctioned classroom practice. Although interactional analysis cannot aim to see participants' inner psychological motives or beliefs, the actions performed through the mobilization of the categories of 'EMI student', 'EMI teacher', and 'not a native speaker' are in consonance with the monolingual model of learning described in the introduction. The existence of a monolingual model of teaching and learning would explain the need to account for the deviation from exclusive use of English in the classroom and the moves made to orient the interaction toward the support of exclusive use of English in the classroom. This shared worldview of EMI as a monolingual practice has implications for both the classroom interaction and for the DP-EMI process itself in this study context.

In this context the EMI classroom is the locus of conflict between the obligation to use English exclusively, and classroom practices which involve the use of Spanish. Membership category analysis associates the category of EMI teacher with the responsibility for upholding the exclusive use of English in the classroom, while the category of EMI student is associated with resistance to this obligation. The monolingual approach to EMI is an underlying source of tension for the teacher. On one hand, she orients toward her obligation to maintain her communication in English despite the difficulties this may represent, while on the other hand, she is obligated to police classroom interaction for the intrusion of language other than the target language. Two possible approaches to dealing with these conflicts are suggested.

One possible approach involves re-categorization of classroom participants. In the data presented above, justification for the questioning of the use of English in the classroom and for the selection of Spanish as the medium of communication lies in the

categorization of classroom members, both teacher and students, as L1 speakers of Spanish ("everyone is from here"). When classroom members are categorized according to the device of linguistic identity, the selection of Spanish as the medium of communication would seem to be justified. If however, categorization is based on the categorization device of EMI classroom members, classroom participants are categorized as EMI student and EMI teacher. In this case, the selection of English as the medium for classroom communication would be preferred.

A second approach would involve changing the perspective upon which EMI is based from a monolingual approach to a plurilingual approach (Moore, Nussbaum & Borràs, 2013; Moore, 2014, 2016; van der Walt, 2013). While recognizing the importance of student exposure to the target language for learning, EMI based on a plurilingual model would allow the judicious use of L1 (Spanish) for learning purposes. Such an approach would allow the use of the students' L1 for learning situations in which high content density or low student target language linguistic competency was an obstacle to content learning in the target language. A plurilingual approach to EMI could potentially reduce the tensions created for the teacher by eliminating the requirement to maintain exclusive use of English in the EMI classroom while allowing the judicious incorporation of a larger repertoire of linguistic resources to support EMI teaching and learning in this context.

With respect to the teacher training process itself, the participation of the language specialist in this interactional sequence also deserves close examination. While the language specialist acknowledges the existence of the tensions and difficulties confronted by the EMI teacher, the opportunity to explore the underlying sources of these tensions is not pursued. An alternative action by the language specialist could have topicalized EMI based on a monolingual perspective and possible alternative plurilingual approaches. From a social interaction perspective, it is not possible to speculate on the language

specialist motives for the lack of exploration of this topic. The data, however, do reflect language specialist actions which result in a lost opportunity to explore the underlying causes of teacher tensions when EMI is taught from a monolingual perspective. Raising the language specialist awareness of the importance of not only acknowledging teacher tensions, but also exploring the underlying causes of them could provide alternative ways of participation in interaction. Such interaction could include fruitful examination of the alternative approaches toward EMI and their potential pitfalls and benefits.

In response to Research Question 1 – *How is a teacher development process for English medium instruction co-constructed in interaction?* –this chapter has focused on shared worldviews of EMI as they emerge through membership category analysis. Underlying monolingual perspectives toward language teaching and learning have emerged in the analysis. These perspectives have implications for both classroom interaction and for the teacher training process itself. Regarding classroom interaction, monolingual perspectives underlie the creation of tension in EMI classroom interaction. They also have implications for the teacher training process itself, which at this point does not facilitate the questioning of such perspectives or the investigation of multilingual alternatives and their associated plurilingual practices. These aspects will be examined again in Chapter 9 and discussion will be brought forward to the conclusions in Chapter 10. The following chapter also addresses Research Question 1, but in this case, it explores initial negotiation of the DP-EMI process, and the tensions which arise in these negotiations.

Chapter 6

Initial negotiations and participation

Whereas the previous chapter (Chapter 5) focussed on the linguistic identities of the participants and their shared world view of EMI, this chapter will focus on the negotiated organization of the teacher development process itself in order to shed light on how the planned DP-EMI was interpreted and implemented in interaction. This chapter focuses on the initial negotiations which take place during the first DP-EMI meeting. Initial interactions in collaborative processes require special attention as they form the foundation upon which posterior interaction is built, and are characterized by intense negotiation and positioning of authority. This chapter examines the authoritative stances claimed by the participants and the interactional methods through which they make claims to authority as they negotiate their roles within the DP-EMI process and the organization of the process itself. Participation is the analytical lens which frames this analysis.

In order to contextualize the analysis of the interactions, Section 6.1 problematizes interdisciplinary collaboration for EMI. This is followed by Section 6.2, which provides an overview of participation. Data and analysis are then presented in section 6.3, after which the chapter ends with conclusions in Section 6.4. Practical recommendations for the application of the findings for future EMI teacher training initiatives are also presented at the end of this dissertation.

6.1 Problematizing interdisciplinary collaboration for EMI

Interdisciplinary collaboration between content and language specialists has been suggested by many authors as an ideal format for preparing EMITD (Arnó-Macià & Mancho-Barés, 2015; Brown, 2017; Gustaffson et. al., 2011; Jacobs, 2007; Lyster 2017). Despite these recommendations, interdisciplinary collaboration is problematic and

requires clarification. In discussing cooperation for EMI, Brown (2017) distinguishes between cross- and inter-disciplinary collaboration. Cross-disciplinary collaboration is suggested as a less threatening alternative as it involves consultation by one expert with another, with the respondent working from within the boundaries of their disciplinary knowledge. Interdisciplinary collaboration, on the other hand, involves collaboration on a task for which neither participant is recognized as an expert. Brown claims that this type of collaboration is more challenging, as both experts are operating outside of their disciplinary boundary.

Paretti (2011), citing Rosenfield (1992), conceptualizes collaboration for integrated content and language (ICL) teaching in a slightly different manner. She addresses collaboration for ICL as either multidisciplinary, in which each expert works independently within their disciplinary domain; interdisciplinary, in which experts work together on a shared problem from within their individual domains of expertise; or transdisciplinary, in which the experts work together on a problem situated outside of either experts' domain. Collaboration in the EMI training initiative presented in this dissertation involves a language specialist with previous experience in teaching content in English, but minimal knowledge regarding the subject content and a content specialist with minimal knowledge regarding the domain of EMI. Each expert works on the shared preparation of an EMI session from within their individual domain of expertise. As preparation of the EMI lesson is situated within the knowledge domains of both experts, following Paretti's terminology, collaboration is interdisciplinary in the process examined in this dissertation. Interdisciplinary collaboration such as this has specific requirements and potential benefits, but also presents specific difficulties, aspects which are discussed here.

Interdisciplinary collaboration is that in which that experts work together on the resolution of a shared problem from within their individual domains of expertise. Negotiation of solutions involves the interactional accomplishment of proposals and contributions by participant-experts from within their domains of expertise. Such negotiations are founded on the assumptions of social solidarity (Clayman, 2002) and mutual recognition of authority with respect to the resolution of the shared problem, whereas markedly unbalanced distribution of authority is an obstacle to such collaborative work. For this reason, in this dissertation the study of interdisciplinary collaboration focuses on participant stances, that is, their claims to and attributions of authority regarding both the DP-EMI process and the domain of EMI. Analysis of these participant stances is carried out by examining the co-constructed participatory frameworks which occur in interaction. The notion of participation is developed in Section 6.2.

The proposed benefits of interdisciplinary collaboration between content and language experts for EMI include the interchange of content and language knowledge and teaching methods and the establishment of inter-departmental ties, aside from the stated goal of assisting content teachers to develop their EMI expertise and ensure quality instruction in English. Interdisciplinary collaboration for EMI, however, is not without obstacles or difficulties (Weinberg & Symon, 2017; Fortanet-Gomez, 2010). On one hand, traditional academic hierarchy places more importance on academic subjects as compared with language teaching and on content teachers as compared to language teachers (Creese, 2002, p. 612). The traditional roles are reversed in the interdisciplinary process for EMI, where the academic lecturer will likely find themselves in a position of inferior authority with respect to the domain of English language knowledge or pedagogical methods for teaching in an additional language as compared with their

collaborative partner. Tensions are a logical result, and questions of authority and struggles to establish control over the organization of the process and the respective roles of the participants may occur. In addition, interdisciplinary collaboration for EMI may involve self-reflexion and critical re-examination of teaching practices, assessment methods, and other aspects of teaching, a process which may also become a source of tension. On another level, EMI teachers' beliefs and level of knowledge for teaching disciplinary specific academic genres in English may lead them to ignore or deny their role in teaching language (Airey, 2012; Mancho-Barès & Arnó-Macià, 2017). Finally, time demands and lack of official institutional compensation for the extra effort involved in participating in interdisciplinary collaborative activities, such as meetings, preparation of materials, etcetera, may also be an obstacle for collaboration.

In summary, it can be seen that the interdisciplinary collaborative processes such as the one examined in this dissertation, can be expected to involve the creation of tensions on many levels. The analysis presented in this chapter will explore how these tensions are dealt with and how questions of authority are negotiated in the initial interactions which constitute the foundation of the DP-EMI process.

6.2 Participation

Participation is the principal framework through which the negotiations which occur in the early stages of the DP-EMI process will be examined in this study. Although participation has been the focus of scholarly work for decades (See Goodwin & Goodwin, 2004, p. 237-239) significant groundwork for the subsequent theoretical development of participation was laid by Erving Goffman (1981), in his study of human interaction. In the chapter entitled *Footing* in *Forms of Talk* his focus of analysis on social encounters, as opposed to individual utterances or speech events, included the development of a

typology of the participation status of both the hearer and the speaker within social interaction. Looking at the relationship a speaker may assume in relation to an utterance, for example, Goffman distinguishes between that of animator, as the producer of an utterance; the author, as the person who selects the sentiments that are expressed in the utterance, and the principal, as the person whose position is established by the words that are spoken (Goffman, 1981, pp. 124-159). Goffman described participation status as the relation between a participant and their utterance within the context of a social activity, while participation framework was constituted by the combined participation status of all the participants in a given interactional context.

While recognizing the important contribution of Goffman's work, Charles and Marjorie Goodwin suggest limitations of this approach, pointing out that, among other things, it involves an application of static categories which do not take into account the dynamic nature of interaction; that it fails to contemplate how the speaker and the hearer reflexively orient to each other and the events in which they are engaged; and that it prioritizes the study of talk over other communicative resources, such as embodied actions (Goodwin & Goodwin, 2004).

A shift in focus of the study of participation from the categorization of participant status to a focus on participation in situated activities was a major contribution of Charles and Marjorie Goodwin. The study of situated activities allowed them to examine:

> (how participants) are joined together in a common course of action, one that encompasses not only linguistic structure in a stream of speech, but also prosody, their visible bodies in a range of different ways (e.g. gesture, orientation, and posture), and on occasion structure in the environment. (Goodwin & Goodwin, 2004, p. 227)

The analytic focus on situated activities allowed these researchers to examine, for example, how an aphasic individual was able to participate in the action of assessment through the mobilization of multiple meaning-creating resources including other participants' speech, prosody, gaze, and embodied actions. Such an approach is used in this chapter to study participation in the initial negotiations of a DP-EMI process. It focuses on both talk and embodied actions to study how the participants co-construct the negotiation of their roles in the EMI teacher development process and the organization of the process itself. Analysis of participation frameworks in this chapter attends to the stances of the participants toward each other and toward the developing interactional work. These stances are displayed in the participant claims to authority based on claims to access to domains of knowledge relevant to EMI and entitlement and responsibility (Stivers, Mondada, & Steensig, 2011) with respect to the DP-EMI process. Through close scrutiny of how the participants reflexively orient to each other (and relevant material objects) and the negotiations in which they are engaged, the analysis aims to answer the research questions: *How is the planned teacher development process for EMI implemented and interpreted in interaction?* and *What participation frameworks are co-constructed in the initial negotiations of an EMI teacher development process?*

6.3 Data and analysis

As explained in Chapter 4, the data presented here were collected during the initial session of the EMI teacher development process. Of relevance to this analysis is the fact that informal (spoken, not written) policy required that DP-EMI sessions be dedicated to tasks directly related to teaching. Other language-related tasks such as writing emails, revision of articles written in English, or preparation of conference presentations did not form part of the officially sanctioned content of the sessions.

Interactional work in the first session of the DP-EMI process was dedicated to the activities of self-introductions of the two participants, discussion of the objectives of the DP-EMI process, and negotiation of how the time would be spent. The data analysed in this chapter reflect collaborative negotiation and decision-making regarding the content and organization of the process. Analysis focuses on participation and the display of claims to authority in three sequences of negotiation which occurred in the first session: the negotiation of the filming of the process; the negotiation of the roles of the participants in the process; and the negotiation of the inclusion of an unsanctioned activity within the DP-EMI process. Transcripts include talk-in-interaction, descriptions of embodied actions, and screenshots when they contribute relevant information for the analysis. Analysis of the first sequence focuses principally on talk and embodied action, while analysis of the second sequence involves talk, embodied action and a material artefact, an official document containing a description of the objective of the process and the different roles of the content specialist and the language specialist. Participation of the material artefact is examined through content analysis of the artefact itself and the study of participants' orientation toward the document in talk and embodied actions. Analysis of the third sequence focuses principally on talk and embodied action.

6.3.1 The physical setting

The meeting, organized previously by email, took place in part of the office space of the language specialist's department. The physical space had been prepared by the language specialist beforehand, consisting of a table, two chairs placed on opposite sides of the corner of the table, and a single camera placed at the opposite end of the room. Embodied actions performed by the LS before the session actually began, such as the preparation of the physical space, the setting up of the camera, positioning it and switching the camera

on, all display language specialist claims to authority regarding the organization of the process. This stance, however, is challenged by the CS, as seen in the fragment below.

6.3.2 Negotiating the DP-EMI process: Filming the sessions

At the beginning of the session, the camera is positioned in such a way that in the video recording the CS can be clearly seen seated at a table with the LS only peripherally visible at times, standing off to the left-hand side of the screenshots. The video recording begins with the CS directing her gaze at the camera and pointing at it. The transcript includes talk, descriptions of embodied actions and screenshots.

Fragment 6.1

```
1   CS:  do we have to to
         record (.) every
         ses↑sion (.)
         ((CS gaze directed at
         camera. Pointing
         gesture at camera))
```

```
2   CS:  °every day?°
          CS:  ((CS shifts gaze
               up to LTS
               standing to her
               right
               offscreen))
```

```
3   LS:  ((offscreen)) yeah=
4   CS:  °yeah°
```

CS: ((CS shifts gaze to the screen, pursed lips, serious facial expression))

5 LS: =i mean basically

((CS smiles,directs gaze briefly toward LS and then at camera))

6 LS: cause the idea will be to:o u:um (.)

7 LS: ‹to see how the process works. basically that’s what it’s about›

((LS sitting down at table, gaze directed at audio recorder she is manipulating in her hands. CS gaze down at table))

8 LS: °lemme just try to turn this thing on (.) ↑to:o°

((LS turns on audiorecorder and places it on table in front of them. CS gaze directed at device))

((CS gaze at audiorecorder))

9 LS: ok (XXX) ((now should))

((CS gaze shifts to LS))

10 LS: ok(.)so(.)umm i don’t know if you really ↑know m:e

The preparation of the meeting space and control of the positioning and management of the recording equipment (turning it on and off) display an initial LS claim to authority regarding the organization of the DP-EMI process. Negotiation regarding the organization of the process begins with a mitigated CS 'complaint' in the form of an information request regarding the obligation to film the sessions at line 1: "do we have to to record every session " As in other cases (Sidnell, 2013, p. 89) the questions about the filming of the process at lines 1 and 2 not only make an inquiry, but also seem to project a complaint, in this case about filming the process. Multimodal evidence of the complaint status of this turn is displayed in the serious facial expression and pursed lips which form part of the turn. The CS complaint is downgraded with a low volume post expansion at line 2, "every day?". The post expansion seems to mitigate the complaint by accepting the need to film some sessions, while leaving open the possibility for exceptions to filming. The LS response, however, does not affiliate with the complaint. Instead, in line 3, the LS affirms the obligation to film, "yeah", and offers an account at lines 6 and 7, in order to "see how the process works." while she publicly and visibly continues to perform the embodied actions involved in turning on the recording device. The non-affiliating LS response to the complaint thus includes an ensemble of talk, gaze and gesture. The slow pace of the utterance at line 7 with respect to surrounding speech, "basically that's what it's about", and gaze not directed at the CS at line 7 make publicly available the fact that she is manipulating the audio recorder, but also work together to enable the LS to maintain the floor. The LS turns on the audio recording device and places it on the table in front of the participants at line 8. A lack of CS verbal response, along with CS gaze at the device on the table at line 8, seems to reflect non-alignment with the LS stance.

At line 10, the LS shifts the interactional focus from the negotiating of filming to that of a self-introduction sequence with "so, I don't even know if you really know me". The change in participation framework is signalled by a redirection of CS gaze at the LS, CS repositioning to a more erect position, and a smiling facial expression. Topic initiation with "so" in this interactional context seems to display a LS claim to authority over the process, as has been observed in other interaction analysis (Bolden, 2008). In summary, in this sequence the filming of the sessions is the subject of negotiation. The CS challenge to the filming of the session involves both talk and embodied actions including talk, gaze and facial expressions, such as the serious facial expression and pursed lips in line 4. These claims are not affiliated to by the LS, whose claims to authority are also displayed through both talk and embodied actions. The upshot of the negotiation in this sequence is the co-construction of participation frameworks which reflect an unequal distribution of authority with respect to the process, as CS claims to entitlement are unattended while LS claims to authority prevail.

6.3.3 Negotiation of the DP-EMI process: Participant roles

Negotiation of the roles of the participants was the subsequent focus of interactional work after self-introductions were completed. An interesting aspect of the extended interactional sequence presented in this section is the participation of a material artefact in the interaction. The artefact, an official three-page document containing a description of the type of collaboration to be established in the DP-EMI process and the relative roles of the participants, is presented in Annex 3. Analysis will focus on comparison of the content of one section of the document with talk-in-interaction. It will also take into account the orientation of the participants toward the document in talk and embodied action as well as the procedural consequences of the interaction. Although, due to

inadequate camera positioning, the language specialist is minimally visible in this interaction, screenshots are presented to include multimodal aspects of the analysis.

Immediately before the sequence begins the interaction has centered on the CS's previous experience using English for professional purposes during an oral poster presentation at an international conference. Discussion of the relative roles of the participants begins with a topic initializing "so" at line 1 and involves orientation in talk and embodied action toward the official document.

Fragment 6.2:

```
1    LS    so

           ((CS gaze directed at LS,
           head resting on L hand))
```

```
2    LS    basically
3    LS    what do you want to do.=
           we-

           ((CS slight shaking
           movement body, quizzical
           facial expression, gaze
           withdrawal from LS)
```

```
4    LS     -i mean
```

5	LS	have you read this?- ((LS offscreen CS raised eyebrows))	
6	CS	no	
7	LS	-(name of CS)?	
8	LS	ok ((LS places document on the table in front of the two participants CS gaze shift down to document on table, hands placed on table))	
9	LS	you don't have this information? ((orients the paper toward the CS, CS inclines trunk forward gaze directed at document, LS hands touching the document))	
10	CS	°i think no XXX°	
11	LS	I can send it to you	

12	CS	hmmm	
13	LS	ok	
14	LS	basically	
15	LS	its ta- it talks about what our roles are supposed to be ((CS gaze directed at document, LS open gesture L hand, R hand in contact w document))	
16	CS	hmmmm ((CS nodding))	
17	LS	i mean	
18	LS	and it also tells you about ((CS gaze shift from document to LS))	
19	LS	w- basically this is what-	
20	LS	we're two people ↑right	
21	LS	so	
22	LS	this is basically:y ((LS points to document CS gaze shift back to document))	

23	LS	what im sposed to do ((right hand indicating a specific point in the document))	
24	LS	is help you to think of	
25	LS	what english you need you'll need ((R hand performs ‘underlining’ action on document, L hand gestures palm up toward CS. CS biting lower lip))	
26	CS	ummm ((CS places R hand under chin))	
27	LS	help you and also help you to identify	
28	LS	if there’s specific stuff that you need to be able to do	
29	LS	to teach in english	
30	LS	a:and also	
31	LS	yeah	
32	LS	and also:o	

		((CS gaze shift from document to LS))
33	LS	if i ↓↑ca:an ((CS R hand to mouth))

34	LS	use <u>your</u> expertise as a content specialist ((LS gesture L hand fingertips closed))

35	LS	like your knowledge
36	CS	yeah
37	LS	to help me in XXX in what im teaching as well ((LS gesture L hand toward herself; CS nods and gaze shift back to document))
38	LS	so
39	LS	it would be more like an interchange (.) ((LS hands shift back and forth as if passing a ball from one hand to the other))

40	LS	basically what you're supposed to do i:is (.) ((LS underlinng gestures towards document L hand))	
41	LS	that (.) ((LS Left hand pointing at document. CS inclines trunk forward orienting more closely to the document))	
42	LS	share your experti:ise (.) about the content (.)	
43	LS	i- help me ((circular motion left hand))	
44	LS	and you together ((LS hands shifting back and forth index fingers both hands pointing at each other))	

45	LS	we’ll identify what english you’ll need ((LS inclines toward CS, LS gaze at CS. LS open hand gesture L hand. CS gaze at document))	
46	LS	perhaps	
47	LS	and then identify	
48	LS	what kinds of things you can do in the classroom	
49	LS	to make it easier for the students to underst- ((mutual gaze))	
50	LS	to assimilate the information	

The self-repaired LS information request at line 3 “what do you want to do.= we-” attributes to the CS responsibility to plan the lesson. The possibility for CS response, however, is cut off by the LS rush through to "we" at line 3 followed by the orientation in talk and embodied action toward the official document describing the DP-EMI process, which the LS places on the table in front of the two participants at line 8. Both participants form an ‘ecological huddle’ (Goffman, 1964) and direct their gazes at the document, which the LS maintains in her hands and towards which she gestures while discussing the objectives of the DP-EMI process. The contents of the official document which are the focus of their interaction consist of a declaration of the rationale behind the partnership

process and a description of the respective roles of the two specialists in the DP-EMI process. The relevant part of the official document is presented in Figure 6.1.

Figure 6.1 Selection from the official document describing DP-EMI process

The groups are based on a rationale of reciprocity and mutual development.

The role of the expert in teaching English as a foreign language is:

-To help identify aspects of their peers' English that need development and to offer linguistic support and suggestions for self-improvement;

-To help identify aspects of their peers' performance as a teacher in English in need of development and to propose methodological strategies and insights from their own experience of managing second language classrooms;

-To draw on their peers' expertise in the teaching of academic content for the improvement of their own classroom practice and the development of relevant and up-to-date teaching/learning materials.

The role of the expert in teaching academic contents is:

-To share their expertise in the academic content for the improvement of their peers' classroom practice and their development of relevant and up-to-date teaching/learning materials and methods;

-To help identify aspects of their own English that need development and to be open to receive linguistic support and suggestions for self-improvement;

-To help identify aspects of their own performance as a teacher in English in need of development and to be willing to try out new methodological strategies for managing second language classrooms.

Content analysis of this section of the document displays an authoritative stance (Hyland, 2002) as reflected in directives regarding how the teacher development process should be carried out. The document arguably reflects the institutional authoritative voice (Bakhtin, 1934) in this sequence. Close examination of the content of the document reveals an internal contradiction with respect to the rationale of the process and the roles it defines

for the participants. On one hand, it proposes that the process be based on the rationale of reciprocity and mutual development. On the other hand, the description of the roles of the participants reflects an unequal distribution of authority. The role of the LS involves the actions of helping the CS to identify aspects of the content specialist linguistic knowledge that need improvement and of offering linguistic support and suggestions for self-improvement. In this way, the document attributes to the LS authority based on access to linguistic knowledge. In addition, it assigns to the LS the identification of aspects of the CS performance of teaching in English which need development and the proposal of methodological strategies for teaching. In this case, the document attributes to the LS authority based on access to pedagogical knowledge. The content specialist role, on the other hand, is limited to sharing her content related knowledge (expertise in academic content) for the improvement of the LS classroom practice and the development of relevant and updated teaching materials. Content specialist authority, in this case, is solely based on her access to knowledge of academic content. For both participants two out of three of their official roles attributes to the LS a position of authority, whereas only one attributes authority to the CS. The unequal distribution of authority is further accentuated in talk, as will be seen in the following analysis which compares the content of the official document with talk regarding the roles of the participants.

Figure 6.2 facilitates comparison, presenting the discourse of the document in the left hand column and the corresponding LS utterances in the column on the right. The comparisons in Figure 6.2 are numbered to facilitate comprehensibility of the analysis.

Figure 6.2 Comparisons of official document with corresponding talk. The comparisons are numbered in the column on the left.

	Document content	LS talk/interaction: Line number + utterance and action
1	The role of the expert in teaching English as a foreign language is:	l. 23. what im sposed to do ((right hand indicating a specific point in the document))
2	To help identify aspects of their peers' English that need development and to offer linguistic support and suggestions for self-improvement;	l. 24. is help you to think of l. 25.what english you need you'll need ((R hand performs 'underlining' action on document))
3	To help identify aspects of their peers' performance as a teacher in English in need of development and to propose methodological strategies and insights from their own experience of managing second language classrooms;	l. 27. help you and also help you to identify l. 28. if there's specific stuff that you need to be able to do l. 29. to teach in english
4	To draw on their peers' expertise in the teaching of academic content for the improvement of their own classroom practice and the development of relevant and up-to-date teaching/learning materials.	l. 30. a:and also l. 31. yeah l. 32. and also:o l. 33. if i ↓↑ca:an l. 34. use your expertise as a content specialist l. 35. like your knowledge l. 37. to help me in XXX in what im teaching as well l. 38. so l. 39. it would be more like an interchange (.)

5	The role of the expert in teaching academic contents is:	l. 40. basically what you're supposed to do i:is (.) l. 41. that (.) ((LS Left hand pointing at document. CS inclines trunk forward orienting more closely to the document))
6	To share their expertise in the academic content for the improvement of their peers' classroom practice and their development of relevant and up-to-date teaching/learning materials and methods;	l. 42. share your experti:ise (.) about the content (.) l. 43. (I- help m:e)
7	To help identify aspects of their own English that need development and to be open to receive linguistic support and suggestions for self-improvement;	l. 43. (I- help m:e) l. 44. and you together l. 45. we'll identify what english you'll need l. 46. perhaps
8	To help identify aspects of their own performance as a teacher in English in need of development and to be willing to try out new methodological strategies for managing second language classrooms	l. 47. and then identify l. 48. what kinds of things you can do in the classroom l. 49. to make it easier for the students to underst- l. 50. to assimilate the information

A comparison of the content of the document with LS utterances as she reads the document out loud reveals interesting differences. Particularly interesting are the disparities which emerge with respect to the CS role in helping to improve and develop LS teaching, actions which attribute to the CS authority based on her access to content related knowledge. The discussion of these differences will center on comparisons 4, 5, 6 and 7 in Figure 6.

The CS role in helping to improve and develop LS teaching is first explicitly mentioned in the official document description of the role of the LS (Comparison 4):

(the role of the LS is) To draw on their peers' (e.g. the CS) expertise in the teaching of academic content for the improvement of their own classroom practice and the development of relevant and up-to-date teaching/learning materials.

The LS talk regarding this part of the document is marked by indicators of trouble, such as false starts, syllable stretching, fall-rise prosody, and markers of uncertainty ("if i can use <u>your</u> expertise as a content specialist"), all of which taken together seem to display a doubtful stance regarding the description of the CS role of helping the LS.

The official document again attributes to the CS authority based on her access to content based knowledge in the following declaration (Comparisons 5 and 6):

(the role of the CS is) To share their expertise in the academic content for the improvement of their peers' (e.g. the LS) classroom practice and their development of relevant and up-to-date teaching/learning materials and methods;

LS talk, however, effectively reformulates the CS role with respect to the process. Here, the document content is reduced to: "share your experti:ise about the content." The LS talk thus eliminates explicit reference to the CS role of:

improving the LS classroom practice and offering knowledge for the development of teaching/learning materials and methods.

This editing action de-emphasizes the helping role of the CS. Additionally, this action displays LS claims to authority as she reformulates the institutional voice by redefining the roles of the participants with respect to the officially planned DP-EMI process.

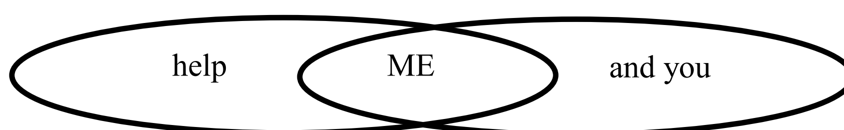
Further LS claims to authority are displayed in actions in talk which occur at lines 40 to 45, reproduced here:

```
40   LS   basically what you're supposed to do i:is (.)
          ((LS underlining gestures towards document L hand))

41        that (.)
          ((LS Left hand pointing at document. CS inclines trunk
          forward orienting more closely to the document))

42        share your experti:ise (.) about the content (.)

43        i- help me
          ((circular motion left hand))

44        and you together
          ((LS hands shifting back and forth index fingers both hands
          pointing at each other))

45        we'll identify what english you'll need
          ((LS inclines toward CS, LS gaze at CS. LS open hand
          gesture L hand. CS gaze at document))
```

At line 43 reference to the improvement or development of LS teaching practice is not overtly expressed, but glossed with a cut-off "I-", followed by the item of talk, "help me". The correspondence of the utterance "help me" to the official document is ambiguous, however, as can be observed in comparisons 6 and 7 in Figure 6. On one hand, "help me" may refer to the point in the document regarding CS assistance to the LS in preparing their subjects (Comparison 6). On the other hand, it may refer to the following point regarding the identification of CS needs for linguistic assistance (Comparison 7). In this interactional context "me" seems to perform as a "pivot"

(Clayman, 2013, p. 161-162) between the previous and following grammatical unit: "and you together". This bridging between units results in omission of explicit reference to CS assistance to the LS, while the role of the LS in assisting the CS remains intact. This relationship is represented diagrammatically in Figure 6.3.

Figure 6.3. Bridging between grammatical units.



In conclusion, the official document, arguably representing the institutional voice, participates in the interactional project of deciding the respective roles of the CS and LS in the process. Orientation of the participants towards the official document is reflected in talk and through embodied actions such as gaze and gesture. The description of the role of the CS contained in the document attributes authority to the CS based on access to content knowledge. This attribution of authority is modified by the LS through embodied actions and talk-in-interaction. By controlling the physical presentation and manipulation of the document and through talk which involves reformulation of the official document, the LS actions display claims to a superior authoritative stance regarding the organization of the session and the overall DP-EMI process. These actions shape the co-construction of the emerging participation frameworks within which authority is unequally distributed and in which LS claims to authority predominate. In the following section, which focuses on the negotiations of the inclusion of an unsanctioned activity in the DP-EMI process, although participation frameworks reflect similar distribution of authority, actions additionally address specific CS needs and contribute toward the construction of social solidarity.

6.3.4 Negotiation of the DP-EMI process: Inclusion of an unsanctioned activity

Although the participation frameworks in these segments, and indeed throughout the first session, display unequal distribution authority and lack of affiliation with CS claims to entitlement with respect to how the process will be carried out, affiliative actions occur which reflect steps toward establishing social solidarity. One example is given in this section. The data reflects the negotiation of the inclusion of an unsanctioned activity, the rehearsal of a poster presentation, in the DP-EMI process. The negotiation spans two interactional sequences. The first sequence displays an incipient proposal on the part of the CS to dedicate part of the process to rehearsing her upcoming poster presentation. This sequence occurs early in the session, during an interactional context in which the CS is presenting her professional needs for English. The analysis focuses on actions performed through talk-in-interaction.

Fragment 6.3

```
     1   CS    also i need english u:uh to:o
     2         sometimes i have to eh expose to do-
     3   LS    uh huh
     4   CS    -oral communications in conference or-
     5   LS    yeah
→    6   CS    for example umm next week-
→    7         no i think that the other week
→    8         umm i have to present a poster about my work
```

In this fragment, the ongoing explanation of the CS professional need to for English begins at line 1, “also I need english uhhh to.:o” and continues at line 2 “sometimes I have to eh expose to do.” In line 2, self-initiated repair of ‘expose’ to ‘do’ is followed by a continuer at line 3 “uh huh” by the LS, which maintains progressivity. The utterance continues at line 4 “-oral communications in conference or-.” The cut-off at line 4 is followed by an LS acknowledgement “yeah” at line 5, which also ensures progressivity

and a CS insertion at lines 6-8, which topicalizes the presentation of a poster that the she has to give at a conference in the upcoming weeks.

In a subsequent sequence, which is oriented toward the planning of the content of the DP-EMI sessions, it is the LS who topicalizes this information. Immediately before the fragment begins the interaction sequence has centered on the content of the subject that the CS will be teaching in English.

Fragment 6.4

```
LS   1   so (.)
     2   you -
     3   -what you would like (.)
     4   you would like to prepare
     5   your poster presentation
CS   6   yeah
LS   7   for in two weeks
CS   8   and maybe i also have a oral communication during
         the year
LS   9   oka:ay
```

As indicated by Bolden (2009) the sequence initial position of the discourse marker 'so' may mark the emergence from incipiency of a previous conversational topic. This is arguably the case in this sequence in which 'so' seems to mark the emergence of the incipient proposal to include the preparation of an upcoming poster presentation in the EMI teacher development process at lines 4 and 5, "you would like to prepare your poster presentation". The affirmative CS response at line 6, "yeah", confirms this inference and is expanded posteriorly at line 7 "for in two weeks", and line 8 "and maybe i also have a oral communication during the year", providing further evidence of CS alignment with the proposal to dedicate a session to the preparation of her presentation. LS interactional moves which topicalize the preparation of the poster presentation and align with the incipient proposal to include such activities in the DP-EMI process reflect LS claims to authority with respect to the content of the DP-EMI process, but at the same time they

display an attempt to establish social solidarity. In similar interactional sequences, Bolden (2009) identifies 'so' prefacing as a discursive strategy for establishing social solidarity by showing interest in the other. The LS topicalization of the incipient proposal similarly seems to accomplish this action by focusing on the needs of the CS. The following DP-EMI session, Session 2 (see Figure 4.2), was dedicated to the rehearsal of the poster presentation. In these fragments, although participation frameworks reflect predominance of LS claims to authority with respect to the content of the DP-EMI, small steps toward the accomplishment of social solidarity involve recognition of CS entitlement with respect to its content.

6.4 Discussion

This chapter examines participation in the context of initial negotiations regarding the organization of the teacher development process and the roles of the participants. It explores how talk, embodied actions and material artifacts participate in the attribution of or claims to authority, rights, and responsibilities during these initial negotiations. In the next sections conclusions regarding the participation frameworks and the participation of the material artifact are followed by a discussion of the implications for interdisciplinary collaboration for EMI teacher training.

6.4.1 Participation frameworks

Analysis of interactional data reflects the tensions and negotiations which occur as participants negotiate their relative authority with respect to their roles within the process and how the process will be carried out. During the negotiation of the organization of the process, participation frameworks reflect content specialist claims to entitlement over the process when she questions the filming of the sessions. Language specialist actions in this

sequence display claims to authority through talk and embodied actions through a non-affiliation to the CS complaint, the absence of affiliating mutual gaze, and the uninterrupted setting up and manipulation of recording devices. Language-specialist-initiated topic shift brings the negotiation sequence to an abrupt end, further displaying an LS claim to entitlement with respect to the organization of the session.

Actions during the negotiation of the roles of the participants make visible LS claims to entitlement with respect to the organization of the process. Interactional work by the LS during the joint examination of the official document involves reformulation of the official description of the roles of the participants, with a resulting emphasis on actions which attribute authority to the language specialist while downgrading content specialist authority.

The negotiation of the inclusion of an unsanctioned activity, the rehearsal of a poster presentation, again displays language specialist authority with respect to the organization of the DP-EMI process. In this case, emergence of the incipient proposal to include an unsanctioned activity in the DP-EMI process is accomplished through LS topicalization of this issue. These actions display establishment of social solidarity by showing an interest in the needs of the CS.

The analysis of participation frameworks in these 3 sequences reflects the intricate negotiations of authority which occur in the initial stages of the DP-EMI process, with a tipping of the balance of authority in favour of the language specialist at this point in the DP-EMI process. As mentioned in section 6.1, markedly unbalanced distribution of authority is an obstacle to interdisciplinary collaborative work. In the following chapter (Chapter 7) analysis will focus on alternative interactional contexts in which CS claims to entitlement regarding EMI or the EMITD process are displayed or in which the CS is attributed authority regarding domains of knowledge relevant to EMI and the EMITD

process. Examination of such situated actions suggests how opportunities for the accomplishment of EMI expertise can be created.

6.4.2 Participation of the material artefact in the process

Analysis of the second sequence, in which the roles of the participants are negotiated, displays the participation of the material artefact. Participation of the material artefact, the institutional document, is studied through analysis of its contents and through examination of the orientation of the participants toward the document in talk and embodied action. As an official description of the objective and roles of the participants, the document reflects the institutional voice which attributes unequally distributed authority to the participants. Participation of the artefact in the negotiation of the roles of the participants is also made visible in the orientation of the two participants in both talk and embodied actions during joint scrutiny of its contents.

As stated earlier, the study of participation involves the contemplation of how individuals reflexively orient to each other and to material objects, and to the events in which they are engaged. In this case, the notion of participation facilitates the study of initial negotiation sequences of an EMI teacher development process. Analysis of participation in the data drawn from the first DP-EMI session reflects initial predominance of LS claims to authority with respect to the organization of the DP-EMI process, although steps are taken to establish social solidarity. Based on analysis of the interactional data and content analysis of the material artefact, CS entitlement regarding the organization of the process and the roles of the participants is limited. Chapter 7 will focus on interactional sequences in which CS claims to entitlement regarding EMI or the DP-EMI process are displayed and in which the CS is attributed authority regarding

domains of knowledge relevant to EMI and the DP-EMI process. Participation of a material artefact, an EMI lesson plan document in this process is also examined.

6.4.3 Implications for interdisciplinary collaboration for EMI teacher training

The DP-EMI process studied here aimed at the establishment of a relationship of reciprocity and mutual development in interdisciplinary collaboration. Such collaboration requires the establishment of social solidarity and a balanced distribution of authority and entitlement with respect to decisions regarding the content and organization of the process. Each of the expert participants works from within her own domain of knowledge on the shared project of supporting content teacher development as an EMI lecturer. This type of collaboration is possible within participatory frameworks in which both participants are attributed authority and entitlement with respect to the shared project they are engaged in. The data examined here reflect participatory frameworks which do not facilitate this objective. Instead, the findings reflect that the struggles and positioning in these early stages of interdisciplinary collaboration result in LS dominance in interaction. It is important to recall the significance of the participation frameworks established in initial sessions as the substrate upon which following session interactions will be based. For this reason, concerted efforts to facilitate a more reciprocal relationship with more equal distribution of authority in this initial session are strongly recommended.

In this case reasonable steps toward encouraging the establishment of such a relationship could include raising participant awareness of traditional institutional hierarchies and how the EMI teacher training processes may challenge these traditional relationships, producing tensions for both the content specialist and the language specialist. The language specialist should be made aware of how actions display claims to or attribution of authority in interaction and how they influence the establishment of

interdisciplinary collaboration and reciprocity. In addition, critical reflection regarding the content of the official document as well as critical reflection regarding the ongoing DP-EMI process in the form of reflective diary or participation in teacher trainer support groups could also facilitate reciprocity.

As stated previously, interdisciplinary collaboration for EMI is a complex process which involves a range of obstacles, many of which involve traditional institutional hierarchies and their effect on interactional claims to or attribution of authority. Overcoming such obstacles requires that language experts and other staff responsible for the organization and implementation of such projects be aware of these factors. The findings presented in this chapter suggest that it cannot be assumed that language specialists universally have sufficient knowledge regarding collaborative work processes or the negotiation of authority in interaction, or have the communication skills needed to maximize effectiveness of interdisciplinary collaboration for EMI. This does not suggest that current EMI teacher training initiatives are unhelpful. Results from teacher satisfaction surveys indicate the opposite. It does suggest, however, that current EMI teacher training could be improved through the incorporation of some of the suggestions provided above. Quality EMI teacher training requires qualified EMI teacher trainers, prepared with pertinent knowledge and communication skills. Critical self-reflexion on the part of all actors involved in the planning and implementation of EMI teacher training is also key in ensuring quality teacher training. The results of such reflective practices, along with further research to identify interactional contexts which provide opportunities for the establishment of reciprocity and which facilitate the development of specialist EMI expertise are needed.

Chapter 7

Situated social actions which support the development of EMI expertise

Whereas the previous two chapters examined members' identities and the shared worldviews of EMI as well as the initial struggles and negotiation regarding the roles of the participants and the DP-EMI process itself, this chapter shifts the focus to interactional sequences which create the opportunity for the accomplishment of EMI expertise in interaction. Looking at data collected later in the DP-EMI process, it continues to take a social interaction perspective. The notions of enactment of expertise (Summerson Carr, 2010) and epistemics-in-interaction (Heritage, 2013; Stivers, Mondada & Steensig, 2011) frame the analysis of talk-in-interaction and embodied actions to identify situated social actions which support the development of EMI expertise. As in Chapter 6, the analysis of the participation of a material artefact, in this case an EMI lesson plan document, is included in this chapter. The following research questions are addressed:

- *In what interactional contexts is EMI expertise co-constructed and made visible?*
- *How do material artefacts participate in the co-construction of EMI expertise and the EMI teacher development process?*

Section 7.1 presents the two theoretical frameworks which guide the analysis in this chapter, enactment of expertise and epistemics-in interaction. The topic of epistemics and material objects is also discussed in this section. The data and analysis are then presented in Section 7.2. Finally, Section 7.3 includes a discussion of the findings.

7.1 Conceptualizing how situated social actions create opportunities for the accomplishment of EMI expertise

7.1.1 Enactment of expertise

Analysis in this chapter draws from theoretical work regarding the enactment of expertise, developed by linguistic anthropologist Summerson Carr (2010). Enactment of expertise takes a social constructivist perspective (see Chapter 3) on expertise, and as such expertise is conceptualized as reflected in and constructed by what people do in interaction. It is not considered to be a static state which people possess, but rather understood as a process of becoming, and enactment of expertise involves the participation of objects, consumers, and producers of knowledge. At the same time, expertise is conceived of as ideological, based on hierarchies of value that legitimize particular ways of knowing in order to be an expert. Summerson Carr (2010) reviews several processes through which expertise is enacted. The first are socialization processes, such as training and apprenticeship, in which experts-in-formation establish intimacy with cultural objects of knowledge and learn to communicate that familiarity. As suggested in studies of apprenticeship by Lave and Wenger (1991), socialization as an expert involves projecting a stance with respect to culturally valued objects. To establish this stance, novices must additionally master an expert register, a recognizable, specialized linguistic repertoire which may include technical terms, prosodic practices, and non-verbal elements.

In the data presented in this chapter, the 'enactment' of expertise is accomplished in interactions in which participants represent their relationship with a culturally valued object, an EMI lesson plan. The cultural processes of evaluation and authentication (Summerson Carr, 2010) mediate the enactment of expertise in this study. Although expertise is a matter of interpretation and evaluation of objects of interest, the qualities of the things that engage experts also shape the manifestation of expertise (Summerson Carr, 2010, p. 22). Thus, things, along with people who interact with them, participate in the enactment of expertise. The enactment of expertise determines the value of a cultural object or activity, while conversely, the action of assessment of objects concedes value to

those evaluating the object or activity. In the analysis presented in this chapter, the enactment of EMI expertise involves the assessment and modification of an EMI lesson plan, where the action of assessment and modification of the EMI-related object concedes value to the content specialist. The understanding that EMI expertise is enacted through assessment of an EMI-related object resonates with the display of epistemic authority in assessments as proposed by interactional epistemics, discussed in the following section.

7.1.2 Epistemics–in-interaction

The notion of epistemics-in-interaction orients the study of the interactional achievement of EMI teaching expertise in this chapter. Knowledge claims that interactants assert, contest, and defend in and through interaction (Heritage, 2013) are employed in the moment-by-moment construction/deconstruction of expertise. Epistemics informs the study of the social distribution of knowledge of the professional community of EMI teaching which sustains a shared culture and body of expertise and which forms a basis for elements of individual identities of the participants (Stivers, Mondada & Steensig, 2011). It also frames the study of epistemic claims that are enacted in turns at talk which are central to the management and maintenance of participants' identities as experts with respect to the domain of EMI. These two perspectives are reflected in the concepts of epistemic status and stance.

The concept of epistemic status is rooted in research by Labov and Fanshel (1977), Pomerantz (1980), and Kamio (1997), and has been defined by Heritage (2013) as the relative epistemic access of any two speakers to a specific domain of knowledge. Heritage proposed that relative epistemic status is stratified on a gradient ranging from more or less knowledge (K+ to K-), and which varies from shallow to deep. That is, participants' epistemic status may range from absolute epistemic advantage (one person has absolute

knowledge while the other has no K) to equality of access and information. For example, the relative epistemic status of a content specialist and a language specialist with respect to the domain of content knowledge or language knowledge might be represented through a steep epistemic gradient, in that each specialist might be expected to have significant epistemic advantage with respect to knowledge regarding his or her specific content area. Epistemic status is displayed in joint recognition of comparative access, knowledgeability, and relative rights to a domain of knowledge and therefore involves what is known, how it is known and the person's rights, responsibility and obligation to know it. In contrast with epistemic stance, which is explained in the following paragraphs, epistemic status is a relatively enduring feature of social relationships (Heritage, 2013). Epistemic status is relevant to the study of EMITD processes because these processes can be conceptualized as collective activities aimed at the achievement of a shift in content specialist epistemic status from an initial K- position to a final K+ position with respect to the domain of EMI.

Epistemic stance is the moment-by-moment expression of social relationships through the design of turns at talk, and is an outgrowth of initial work by Terasaki (2004), Goodwin (1979), and Heritage (1984a). Previous scholastic investigation regarding epistemic stance has proposed that in the display of epistemic stance people orient toward three distinct dimensions of knowledge (Stivers, Mondada, & Steensig, 2011), epistemic access, epistemic rights or entitlement, and epistemic responsibility. Epistemic access refers to interactants' access to a knowledge domain, but also to the degree of certainty, the source of knowledge, and the directness of knowledge (Stivers, Mondada, & Steensig, 2011). Epistemic primacy or entitlement involves entitlement or right to know about a domain including relative right to know, their relative right to claim, and the relative authority of knowledge (Stivers, Mondada, & Steensig, 2011). Epistemic responsibility

relates to the responsibilities associated with knowledge. All three dimensions are implicated in the interactional accomplishment of EMI expertise in the analysis presented in this chapter.

Generally, speakers try to maintain consistency between their own epistemic stance and epistemic status and congruence between their own epistemic status and the status of the recipient (Heritage, 2013, p. 378). For example, epistemic congruence is established when K- speakers ask for information regarding a domain unknown to them and K+ speakers make assertions regarding a known domain (Keevallik, 2011). Information requests normally display claims to lower epistemic stance with respect to a domain of knowledge when made from an 'unknowing' position with respect to the domain of knowledge, whereas first position assessments may propose superior epistemic status, as entitlement to assess an action or object is based on the possession of knowledge regarding the 'assessable' (Pomerantz, 1984). Actions such as advice giving or proposals generally display an authoritative epistemic stance. However, epistemic status can be dissembled or assembled by speakers who wish to appear more or less knowledgeable than they are (Heritage, 2013). It is important to remember that epistemic stance is co-constructed in interaction and context-bound, and therefore analysis of claims to and attributions of stance must examine their interactional context. This chapter attempts to shed light on some of the ways in which epistemic status can be assembled through the attribution of, and claims to, epistemic stance in different interactional contexts. While the aim of the DP-EMI process is a change in content specialist epistemic status from K- to K+, changes are accomplished through the turn-by turn interactional claims to or attribution of epistemic stances.

7.1.3 Epistemics and material artefacts

The idea that material artefacts and the material environment participate in the co-construction of meaning and sociality in interaction is not new in CA. References to the importance of including the physical surround in the analysis of interaction were particularly sparked by Goodwin's (1984, 2000) work. As has been discussed in Chapter 3 of this thesis, recent strands of CA have moved on from the initial focus on talk-in interaction to the study of when and how resources such as speech, gesture, gaze, body movements and artefacts should be included in CA studies. In a recent monograph, Hazel, Mortensen and Rasmussen (2014) state:

> Where there is evidence of raw materials, for example the visually accessible body, or vocally produced sound, or physical structures in the surround, being occassioned, indexed and assembled as objects of perception, for analysts to pursue an emic perspective of locally produced social order it is incumbent upon them not to treat any of these orientations a priori as redundant. (p. 3)

As interaction analysis must necessarily take into account all the semiotic resources which participate in the co-construction of meaning and social worlds, these authors question the need for terms such as multimodal or embodied conversation analysis, stating "the categories of multimodal or embodied interaction are not necessary as for us 'interaction' indexes all of that" (Hazel, Mortensen & Rasmussen, 2014). While understanding this affirmation, this dissertation employs the terms multimodal and embodied CA in order to emphasize the important role played by all semiotic resources in the co-construction of meaning in interaction.

In their summary of perspectives employed in the study of the material resources which people occasion in pursuing courses of meaningful interaction, Hazel, Mortensen and Rasmussen (2014) reference work by Goodwin, Streeck and LeBaron, and Latour in

which the materials from which participants construct 'objects' already embody predetermined symbolic properties, which are subsequently drawn on and shape actors' socially situated practices. These authors contrast this perspective with an alternative interactionist approach which "rather than attributing such inherent qualities to the components…start out with focusing on the practices through which materials are produced by social actors as objects of perception within the setting" (Hazel, Mortensen & Rasmussen, 2014, p. 3). The analytic focus on the participation of material artefacts in this dissertation similarly focuses on the orientation of participants' talk and embodied actions toward artefacts, but also analyses the content of the artefacts. As the content of the artefact is indexed and occasioned by participants in the pursuance of social actions, analysis of the content becomes relevant to understanding how these social actions are constructed. The symbolic properties of the object within the interaction, however, are not considered innate, but rather analysed from an emic perspective which examines participation of the artefact and its contents as it it perceived by the participants and occasioned in the construction of meaning. In this chapter the material artefact which participates in the interactional accomplishment of EMI expertise is a written lesson plan. The lesson plan was constructed during a brainstorming session at the end of the second DP-EMI meeting. Examination of the lesson plan reveals the following content:

Figure 7.1: Selections from the lesson plan. See Annex 4 for entire document.

STS Should ID characteristics of a good scientific poster IN ORDER TO PREPARE THE POSTER, THEY NEED TO HAVE ACCESS TO A COMPUTER. YOU WILL WANT TO TELL THEM TO BRING COMPUTERS TO CLASS.

In this case the content of the lesson plan includes directives signaled by the presence of an imperative “you will want to tell them to bring computers to class” and a modal of obligation “students should identify characteristics of a good scientific poster”, both of which display the author’s claim to an authoritative stance (see Hyland, 2005, p. 184-185 for a discussion of directives, engagement and authoritative stance in writing). The physical presentation of this document by the language specialist within the social action of discussing and planning an upcoming lesson makes visible an LS claim to authority with respect to the planning of the lesson. Subsequent interaction in which the content specialist orients toward the material artefact in the actions of assessment or proposals of modification of the document, on the other hand, displays the participation of the document in content specialist claims to authority regarding the planning of the process.

7.2 Data and analysis

The data presented here are transcriptions of video recordings which reflect the activities of the discussion and editing of a document which contained organizational information for an upcoming EMI lesson. The planning of the lesson spanned over Sessions 2 and 3 of the DP-EMI process (see Figure 4.2). Talk regarding the upcoming EMI lesson occurred in the last seven minutes of Session 2. Notes were taken by the language specialist and formed the basis for a document which she subsequently typed and brought to the third session. Modification of the lesson plan occurred in Session 3. Multimodal CA, notions of enactment of expertise and epistemics-in-interaction frame the analysis of the interactional accomplishment of content specialist EMI expertise in three different sequences. The sequences involved three actions:

1) The attribution of EMI-related responsibility to the content specialist

2) Topicalization of the relevance of pre-existing content specialist knowledge for EMI

3) Content specialist proposals for the modification of an EMI-related material artefact

A first section of the analysis examines interactional sequences in which the LS attributes to the CS EMI-related responsibilities. Participation of a material artifact, an EMI lesson plan, is studied. Screenshots are included to illustrate the embodied actions which occur in the fragment.

7.2.1 Action 1: Attributing EMI-related responsibility to CS

At several points in the third DP-EMI session the LS makes information requests regarding CS plans and preparation for an upcoming EMI class. This is exemplified in Fragment 7.1 presented below which occurs at the beginning of Session 3. Immediately before the fragment begins the LS has distributed two paper copies of the lesson planning document, one which she gives to the content specialist and one which she keeps for herself. The LS and the CS are seated at the table with the documents in front of them. The LS self-interrupts to initiate a sequence regarding the CS plans for the upcoming EMI lesson.

Fragment 7.1

```
1  LS   so have you thought-
```

```
        ((LS and CS brief mutual
        gaze, LS has a pen in her
        right hand ))

2  LS   i mean

3  LS   what have you thought
        about-
```

```
        (( CS gaze shifts to the
        document in front of her))

4  LS   you can do whatever you
        want
```

```
        ((CS smiles, LS puts pen
        on the table, shifts
        weight back in chair away
        from the document and
        makes a
        "nontouching/relinquishing
        " gesture with both hands
        which ends with her hands
        in her lap))
```

```
   5  CS   .h h-h-h

           ((CS pushes hair away from
           face))
```

```
→  6  CS   i don't know

           ((CS gaze directed at
           document, inclines body
           forward to lean over
           document))
```

```
→  7  CS   maybe prepare the class
           but-

           ((places right hand on
           document))
```

```
→  8  CS   for me this part is ok
```

At line 1, an interrupted LS information request regarding the CS plans for the upcoming EMI lesson,"so have you thought-", is accompanied by mutual gaze. At this point, the LS has a pen in her right hand. The CS's gaze shifts down to the lesson plan document at line 2, while the LS's utterance "I mean-" prefaces a self-initiated repair at line 3, "What have you thought about-". The LS's utterance at line 3 is reformulated to "you can do whatever you want." This LS repair at line 4 is accompanied by the embodied actions of

putting the pen on the table, shifting her weight back in the chair and reclining away from the document while removing both hands from the document in a relinquishing gesture which ends with her hands on her lap. The CS's embodied response at line 5 consists of 'nervous' laughter, pushing her hair back from her face, and maintaining her gaze directed at the document on the table in front of her. At line 6 a CS utterance, "I don't know", is accompanied by gaze and inclination toward the document. At line 7, a cut-off utterance by the CS "maybe prepare the class, but-", along with the gesture in which she places her hand on the document is followed by an assessment of one part of the lesson plan, "for me this part is ok."

The initial mutual gaze at line 1 seems to display recipiency (Heath, 1984) and alignment. Utterances at lines 1 to 3, "so have you thought, I mean, what have you thought about", make relevant the cognitive processes required for the preparation of the EMI lesson, while the personal pronoun 'you' attributes the responsibility for carrying out these processes to the CS. Whereas the initial information request "Have you thought?-" admits the possibility that the CS may not have thought about what she will do in the upcoming lesson, the reformulation at line 3, "What have you thought about?" precludes this possibility, thus strengthening the attribution of responsibility to the CS to plan the EMI lesson. An expansion at line 4, "you can do whatever you want" further upgrades this action. Attribution of responsibility at lines 1 to 4 is also visible in the LS embodied actions of putting down her pencil and reclining away from the lesson plan, physically enacting her desengagement from the lesson plan document.

The CS response displays initial non-alignment in both talk and embodied action, comprised of nervous laughter, delay accomplished with the utterance "I don't know", and gaze shift downwards, away from the LS and toward the material document in front of her on the table. Orientation of gaze and gesture toward the document at line 6 is

followed by an aligning CS verbal response to the information requests posed by the LS at lines 1 and 3. The cut-off response at line 7, "maybe prepare the class, but-", is followed by a positive assessment of a part of the plan at line 8 "for me, this part is ok", and a digression sequence in which she makes relevant information which suggests the need to modify the lesson plan. The action of assessment at line 8 "for me, this part is ok" displays a claim to epistemic entitlement with respect to the planned EMI lesson.

This sequence is presented to exemplify how the attribution to the content specialist of the responsibility to plan and prepare the EMI lesson creates an opportunity for the interactional accomplishment of CS expertise. The formulation of an aligning response by the CS at lines 7 and 8 displays a CS claim to entitlement with respect to the process of planning the EMI lesson. Multimodal conversation analysis makes visible the participation of the lesson plan document in the interactional accomplishment of these actions.

7.2.2 Action 2: Establishing the relevance of content specialist knowledge for EMI

Opportunities for the accomplishment of EMI teaching expertise in interaction are also created through interactional moves which elicit CS knowledge and make explicit the relevance of this CS knowledge for EMI. This action occurs across the two fragments presented here. In a first fragment, Fragment 7.2, the relevance of a specific body of knowledge for EMI is topicalized. A second fragment, Fragment 7.3, reflects how an interactional space is created for the CS to provide this information. Fragment 7.2 begins with a request for information in which the LS asks the CS what she plans to do in the lesson. The CS responds.

Fragment 7.2

1	LS	so what were you thinkin then?
		((LS gaze at CS; CS trunk inclined toward table, head resting on R hand, pencil in L hand, gaze directed at document))

2	CS	ummmm
3	LS	so:o
		((LS picks up pencil, redirects gaze at document in front of her, and starts to write on her copy of the lesson plan))
4	CS	>i don't know-<
5		ah (.)
		((rapid jabbing motion toward document with pencil in L hand))
6		in [this the first part the first part
		((CS gestures with pencil to one area of the document))

7	LS	[uh huh
8	CS	to:o to:o tch u:uh (.)
9		organizate-
10	LS	uh huh

11 CS -a scientific po:::oster…

12 LS uh huh

13 CS a:and

((LS stops writing. Puts pencil on the table))

14 ummm hmm hmm hmm

((‘searching’ gaze moves quickly over different parts of the document))

15 ahh ↓this

((stops search, fixes gaze on one point in the document))

→ 16 generate a list of criteria for a good poster

((CS reading from the lesson plan))

→ 17 i have to prepare maybe a presentation with (.) ↑no

((CS gaze shifts from the lesson plan to LS))

The pattern described previously in Fragment 7.1 is repeated here. An information request regarding what the CS plans to do at line 1 is followed by a delay at line 2 ‘ummm’ and

line 4 “I don’t know”, accompanied by verbal and embodied orientation to the material artefact at line 5. The CS orientation toward the document precedes her response to the information request at line 17 “I have to prepare maybe a presentation with, no.” The content specialist’s physical orientation toward the document along with verbalization (reading out loud) of its contents at line 16, make visible the participation of the artefact in the formulation of the CS candidate proposal at line 17, “I have to prepare maybe a presentation with, no?” With the incorporation of the personal pronoun ‘I’ and the modal of obligation ‘have to’ in the proposal, the CS acknowledges her personal obligation to plan the EMI lesson. An interrogative tag at the end of the proposal and a marker of uncertainty, ‘maybe’, however, both downgrade this claim to authority. As in Fragment 7.1, CS alignment with the LS attribution of her responsibility to plan the EMI lesson displays acknowledgement of her responsibility to plan the EMI lesson.

Fragment 7.2 is presented here because it reflects the topicalization of the relevance of CS knowledge regarding the criteria for a good poster for the upcoming EMI lesson. The establishment of the relevance of this knowledge for the EMI lesson lays the ground for subsequent interaction at a later point of the interaction in which an LS information request is followed by a CS display of the knowledge relevant to the upcoming EMI lesson. This action is presented in Fragment 7.3.

Fragment 7.3

```
1    LS    like-
2    LS    i don't know
3    LS    what kinds of stuff do you look at?
4    LS    what do you think makes a good poster?
```

Fragment 7.3 begins with a cut-off, “like-”, at line 1 which seems to display an incipient possible candidate proposal. A claim to lack of knowledge, “I don’t know”, at line 2 conforms with Keevallik’s (2011) analyses of similar claims as a strategy to elicit

information . The claim to not know at line 2 prefaces an LS information request at line 3 "what kinds of stuff do you look at?", which creates an interactional space in which the CS could potentially claim epistemic authority by displaying her knowledge regarding the criteria for a good poster. In reformulation at line 4, the LS request changes from a more general question of what 'stuff' the CS 'looks at' to a more explicit request for the CS opinion regarding the characteristics of a good poster "what do you think makes a good poster." This is followed by an extended aligning CS response sequence, the beginning of which is presented here.

Fragment 7.4

```
1   CS    u:um tch I don't know-
          ((LS gaze at CS. CS gaze at table))

2         he he
          ((CS leans back away from table))

3         maybe the poster that its cle:ear
          ((CS gaze shift to LS))

4         that you have all the parts of the article
          ((gesture L hand as if marking the rungs of a
          ladder ))
```

In the response sequence (the entirety of which is not presented here for lack of space) the CS proposes her criteria for a good poster, a domain of knowledge which has been previously identified as relevant for the upcoming EMI lesson.

In summary, these fragments reflect interactional work in which opportunities are occasioned for CS claims to epistemic authority based on her access to knowledge necessary for the development of the EMI lesson being prepared. The following section presents a third type of action through which CS claims to authority regarding the EMI process are displayed in the the formulation of a proposal to modify the EMI lesson planning document.

7.2.3 Action 3: Content specialist proposals for the modification of an EMI-related material artefact

A CS proposal to modify the EMI lesson plan occurs during the third session of the DP-EMI process. As stated earlier, in the second session a document had been created which contained a lesson plan for an EMI class session dedicated to designing a scientific poster. The content of the document, written by the LS and largely based on LS contributions, includes the proposal that during the EMI class session the teacher distribute parts of a scientific article to groups of students, who then design a poster based on their material and present it at the end of the class session. The document also proposes that the students prepare a poster presentation of a different assigned article outside of class as a final project. In this fragment the CS proposes an alternative way of organizing the lesson, in which the students begin to prepare the poster presentation of their assigned article during the EMI lesson. The CS proposal thus represents a modification of the EMI lesson plan. Interaction previous to this fragment involves an initial CS proposal for the change, which is not taken up by the LS, but rather followed by multiple clarification repairs by the LS. This fragment begins with a LS clarification request regarding whether the students will have already prepared their poster presentation before the class.

Fragment 7.4

1 LS or do you think

2 people will have already prepared their pos↓ter

3 CS no they can prepare the poster in class maybe-

((LS nods))

4 LS mm↑↓[mm:m

((LS raises and lowers hands))

5 CS [-talk with other ↑no-

6 LS good id↑↓e::ea

((LS flips over the lesson planning document and directs gaze at document)

7 CS .h h-h-h-

((CS head tilted back in laughter))

8 LS of c↑↓o:ourse

((brief mutual gaze))

9 [i'm really <u>stupid</u>

((LS gaze directed at document; gestures towards head with L hand; CS flips over her copy of document))

10 CS [or you prefer that they

((LS gaze shifts to CS))

11 have to [work it-

12 LS [<u>no↑↓::o</u>

13 LS <u>[yeah</u>

((LS gaze shifts to document))

At lines 1 and 2 the clarification request from the LS "or do you think people will have already prepared their poster?" is followed by a negative CS response at line 3. This response is expanded with a proposal for the EMI lesson, "they can prepare the poster in class", which in turn receives verbal and embodied acknowledgment on part of the LS at lines 4 and 6, "mmm, good idea". The CS proposal of classroom activity displays a claim to entitlement with respect to planning the EMI lesson, although this claim is downgraded with the addition of 'maybe' in line 5. Expansion and an interrogative tag at line 7 "talk with other, no", again downgrade the authoritative epistemic stance claimed by the content specialist.

An overlapping LS response begins at line 6, 'mmm', accompanied by raising and lowering of hands, rise-fall prosody, stress, increased volume and gesture, suggesting an unelicited surprise display with respect to the proposal made by the CS. This response may reflect an LS change of state with respect to recognition of a CS proposal not understood until that point by the LS, but it may also display additional actions. According to Wilkinson and Kitzinger (2006), "One common use of (unelicited) surprise displays is to register the breach of a local moral order and to produce embedded accounts, excuses, and justifications for that breech" (p. 175). The CS proposal for the modification of a lesson plan which had been mainly constructed by the LS arguably reflects a challenge to LS authority. At line 8 the strongly positive assessment of the CS proposal is intensified through the use of rise-fall prosody, increased volume, stress and vowel stretching "good idea!" (Selting, 2010). This LS assessment of the CS proposal reasserts LS entitlement with respect to the development of the lesson plan, and is accompanied by embodied orientation toward the document through gaze and manipulation of the document. The LS response is followed by CS laughter and CS repetition/mimicking of

LS movement of lesson plan document at line 9, possibly as resources for re-establishing affiliation.

Reassertion of LS authority with respect to the process continues with the LS assessment of the proposal as self-evident (Stivers, 2011) at line 8, “of course”, also marked by stress, increased volume and rise-fall prosody, while accompanied by mutual gaze. LS self-depreciation at line 9, “I’m really stupid”, again marked by stress, is accompanied by embodied orientation toward the document. The negative self-assessment on the part of the LS at line 9 may reflect a change-of-state, in reference to her own inability to recognize and acknowledge a self-evident CS proposal. It may additionally reflect the breach of moral order created by the CS proposal to modify the lesson plan largely constructed by the LS. The existence of CS laughter immediately after the LS response, perhaps to perform the action of re-establishing affiliation, seems to support this interpretation. Also of note is the occurrence of a mimicked movement, the flipping over of the paper, first by the LS at line 6, and later by the CS at line 9, possibly as a part of the action of affiliation.

This sequence provides evidence for the interactional accomplishment of expertise through CS proposals to modify the content of the EMI lesson plan and LS alignment with these proposals. In this sequence participation of the document is visible in embodied orientation of the participants toward the document, orientation of gaze toward the document, and manipulation of the document itself (a flipping action). CS replication of this initial LS gesture may also reflect the participation of the document in the re-establishment of affiliation.

7.3 Discussion

The interactional accomplishment of expertise during the activity of the planning of an upcoming EMI lesson has been analysed in sequences representing three distinct actions. A first section examined the LS action of attribution of CS responsibility for the planning of an upcoming EMI lesson. An aligning and affiliating CS response made visible CS claims to authority with respect to the planning of the EMI lesson. A second section examined actions which establish the relevance of pre-existing CS knowledge to the domain of EMI. A third action involved CS proposals for the editing/modification of an EMI-related material arefact.

As explained earlier in section 7.1.2, authoritative epistemic stance is visible in interaction in claims to or attribution of: epistemic access, primacy, and responsibility (Stivers, Mondada, & Steensig, 2011). Display of content specialist epistemic authority based on epistemic access occurs when her knowledge regarding the criteria for a good scientific poster is shown to be relevant for the planning of an EMI lesson. Content specialist claims to epistemic entitlement occur when she proposes modification of the written lesson planning document, thus claiming epistemic primacy with respect to the production of the EMI-related artefact. Attribution of epistemic responsibility is visible when, through the use of information requests regarding the content specialist's plans for the upcoming lesson, the language specialist attributes to the content specialist the responsibility to plan the EMI lesson.

Two types of actions are thus involved in the interactional accomplishment of EMI expertise: attributions of and claims to epistemic authority. Attributions of content specialist epistemic authority are enacted in sequences in which responsibility for planning an EMI lesson is accepted and when the relevance of content specialist knowledge for EMI is displayed, whereas content specialist epistemic claims to EMI

authority are accomplished in sequences in which the content specialist proposes changes in an EMI lesson plan. These attributions and claims to EMI-related knowledge participate in the interactional management and maintenance of content specialist identity as EMI specialist. Close interactional analysis reveals how the material artefact participates in the interactional accomplishment of these actions, as an authoritative resource in the formulation of proposals, as the object of assessment, and in the establishment of affiliation.

This section provided insight into how one EMI teacher training is accomplished in interaction and in what kinds of interactional sequences EMI expertise can be made visible and constructed. It is framed by a theoretical approach which conceives of expertise as an interactional "process" susceptible to being constructed or deconstructed in interaction. The socialization of the content specialist as an expert involves the display of stance with respect to a culturally valued object, an EMI lesson plan. Expertise is enacted through the interpretation and evaluation of the object of interest, but the "thing" (the material artefact) that engages the expert-in-formation also shapes the manifestation of expertise by participating in the actions through which it is accomplished The material artefact, along with the language teaching specialist and the content specialist, participates in the enactment of expertise in this study.

The findings indicate that within this study context the specific actions of attribution of EMI-related reponsibility, making relevant content specialist access to EMI-related knowledge and content specialist claims to entitlement to assess or propose changes in EMI-related materials all provided opportunities for the interactional accomplishment of EMI expertise. Analysis has also indicated the significant role played by the material artefact in this study context. The following chapter, Chapter 8, complements and extends this analysis by providing a theoretical and methodological

approach to the study of the interactional accomplishment of EMI expertise and tests its applicability on data collected at end of the DP-EMI process.

Chapter 8

Conceptualizing the interactional accomplishment of EMI expertise

Building on the analysis of the small collection of specific action sequences which created opportunities for the interactional accomplishment of EMI expertise in the previous chapter, this chapter presents an approach to understanding how EMI expertise is made visible and co-constructed in interaction. A working hypothesis is presented and subsequently used to frame the analysis of two sequences of shared viewing of video recordings of EMI classroom teaching, thus extending the collection of interactional sequences in which EMI expertise is accomplished. This chapter focuses on the following research questions:

- *How can the interactional accomplishment of EMI expertise be represented for future research by a heuristic model?*
- *How can the application of the heuristic model shed light on the accomplishment of EMI expertise in the EMI teacher development process?*

The proposed heuristic draws from three complementary theoretical perspectives: enactment of expertise (Summerson Carr, 2010); professional vision (Goodwin, 1984); and epistemics-in interaction (Heritage, 2013). Two of these perspectives, enactment of expertise and epistemics-in-interaction, have been presented in Chapter 7 and readers are referred to that chapter for an extended description of these theoretical notions. The summaries of enactment of expertise and epistemics-in-interaction provided in Section 8.1 will focus on the significant elements which contributed to the heuristic of the interactional accomplishment of EMI expertise that is developed herein. A more extensive explanation of the third theoretical contribution, professional vision, is given here, followed by a description and a diagrammatic representation of the heuristic. The second section of this chapter exemplifies the application of the heuristic to the analysis

of data collected during the shared viewing of video recordings of EMI classroom interaction. In this second section a discussion of pertinent methodological aspects is followed by a section containing the data and analysis. The major findings are included in the final section of this chapter.

8.1 Conceptualizing EMI expertise

The three complementary theoretical perspectives that contribute to the heuristic which represents the interactional accomplishment of EMI expertise, enactment of expertise (Summerson Carr, 2010), professional vision (Goodwin, 1994), and epistemics-in-interaction (Heritage, 2013; Stivers, Mondada & Steensig, 2011), will be discussed in the following three sub-sections, followed by a visual representation of the heuristic in Figure 8.1.

8.2.1 Enactment of expertise

This chapter continues the examination of the process of socialization of a content specialist as an EMI expert. As in the previous chapter, the enactment of expertise is displayed in the discursive processes in which the DP-EMI participants, the language specialist and the content specialist, represent their relationship with a culturally valued object, in this case a video recording of EMI classroom interaction.

It will be remembered that the previous explanation of enactment of expertise emphasized that the cultural processes of evaluation and authentication mediate the enactment of expertise. In the data presented in this chapter, the object being evaluated is a video recording of EMI classroom teaching. The enactment of EMI expertise involves the assessment of the content of a video recording by the EMI teacher-in-training (the content specialist). As in Chapter 7, the action of assessment of the EMI-related object

concedes value to the teacher-in training. Other educational research has drawn upon enactments of expertise to study the establishment of expertise by peer-tutors in second language acquisition contexts. In one study, Back (2016) examines how embodied, artefactual, and historical resources are drawn on by a peer-tutor to position herself as an expert in the target language. Whereas Back draws upon the ideological and socialization processes involved in the establishment of peer-tutor expertise, the heuristic presented in this chapter draws upon socialization processes in the establishment of a content specialist's EMI expertise, as displayed in interactions with EMI students, other experts in teaching of content in English and in interactions with EMI-related objects both within and outside the classroom. The heuristic also contemplates interactions which involve the evaluation of EMI-related artefacts as displaying the interactional accomplishment of EMI expertise. As in the study by Back, this study explores how embodied and artefactual resources are drawn on by the participants as interactional resources for claiming knowledge and to position themselves as experts.

8.1.2 Epistemics-in-interaction

The heuristic presented in this chapter draws heavily from the frame of epistemics-in-interaction to identify social actions which create opportunities for the interactional accomplishment of EMI expertise. Epistemics-in-interaction frames the analysis of claims to, or attribution of, epistemic authority based on the three dimensions of epistemic access, epistemic entitlement, and epistemic responsibility in action sequences, thus providing a frame for the study of the interactional accomplishment of EMI expertise.

Other research has used epistemics in interaction to frame the study of the interactional accomplishment of expertise. This is the case of the previously mentioned study by Back (2016), in which she examines how one peer-tutor uses symbolic,

embodied, and artefactual tools to mediate gaps in her own knowledge of Spanish, while constructing her epistemic stance as expert. The current study similarly looks at how talk-in-interaction, embodied actions, and material artefacts participate in the construction of a content specialist's stance as EMI expert. As in the present study, Back examines the interactional negotiation of epistemic status of K+ which requires ongoing co-construction of this status by both the participants. The incorporation of notions of epistemic stance and status allows Back to examine how knowledge and expertise are co-constructed in interaction.

Also within the context of teacher development, a study by Ekström (2013) regarding peer assessment of student teachers' evaluation of craft objects is framed by notions of epistemics. Particularly relevant to this study is Ekström's observation of the influence of the epistemic positioning of the teacher educator on the ways in which students participate in the teacher training activity. In the current study, the LS's attribution of, or claims to epistemic authority with respect to the domain of EMI participates in the co-construction of the content specialist's EMI knowledge, culture and expertise. These elements all form the basis of the identity of the content specialist as an EMI teacher.

8.1.3 Professional vision

A third notion which contributes to the heuristic of the interactional accomplishment of EMI expertise is that of professional vision (Goodwin, 1994). Professional vision involves the socially organized ways of seeing and understanding events by the members of a professional community. Goodwin explores professional vision in interaction, when members of a profession shape events in the domains which are subject to their professional scrutiny. This shaping process creates objects of professional knowledge,

such as theories, artefacts, and bodies of expertise. Analysis of the methods used by members of a professional community to build and contest events that structure their professional world thus contributes to the development of a theory of knowledge and action in professional practice.

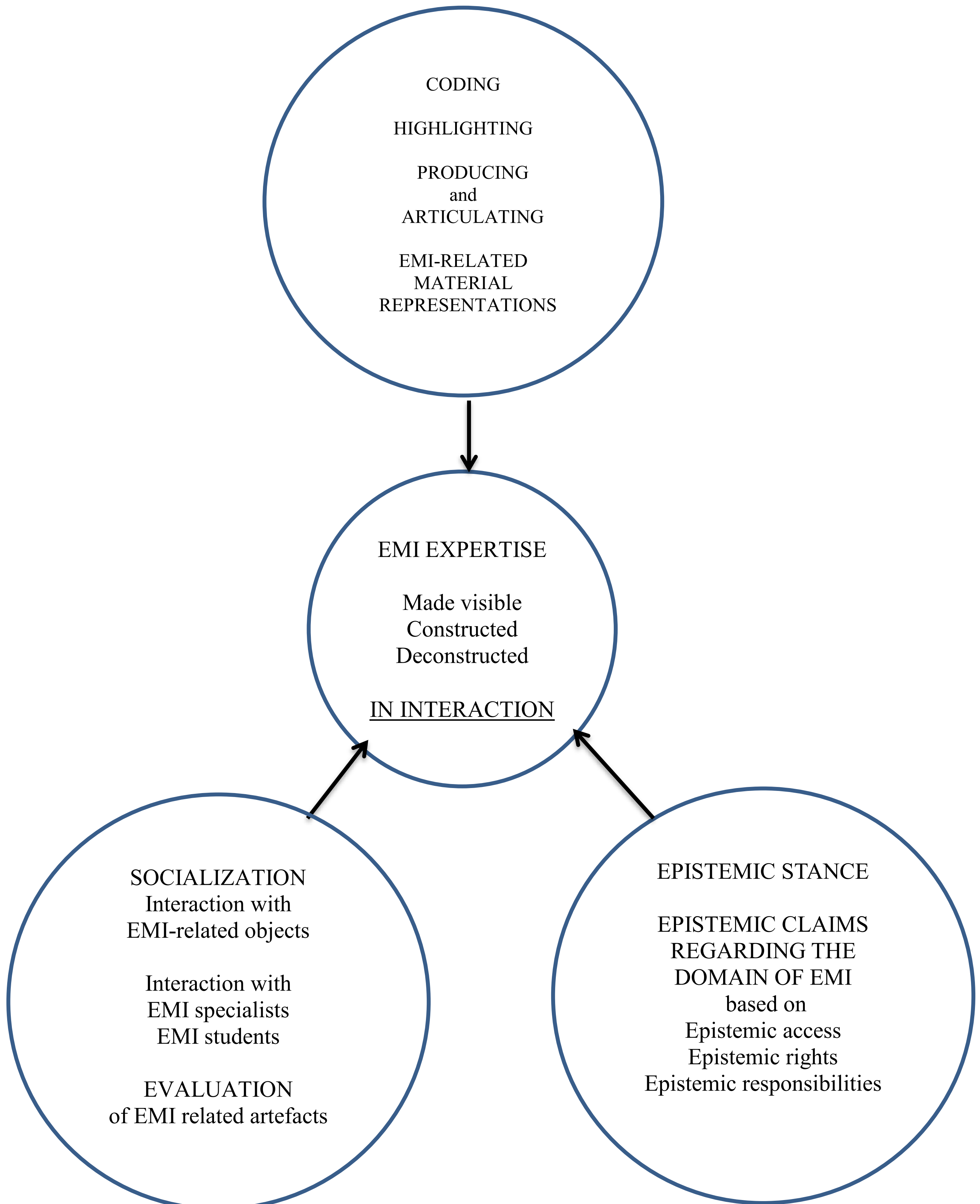
Goodwin proposes three practices which reflect professional vision within contexts of professional activity: coding, highlighting, and the production and articulation of material representations. Coding involves the transformation of phenomena observed in a specific setting into objects of knowledge that animate professional discourse. Highlighting refers to making salient specific phenomena in a complex perceptual field by marking them in some fashion. Finally, the production and articulation of graphic representations are considered key elements of the discourse that professionals engage in, which makes them a central locus for the analysis of professional practice. All three practices allow participants to build professional vision. Professional vision has been applied by other educational researchers to the study of the interactional display of teaching expertise during collective video viewing of classroom interaction by mathematics teachers (Gamoran Sherin & van Es, 2009). These authors examine the actions of coding and highlighting of teaching practices, a phenomenon which has also been observed in the data set examined in this chapter.

8.1.4 Heuristic of the interactional accomplishment of EMI expertise

In this section a diagrammatic representation of a working hypothesis of the interactional accomplishment of EMI expertise is presented. This working hypothesis (Lincoln & Guba, 1985), attempts not only to describe the phenomena of the interactional accomplishment of EMI expertise, but also to provide an approximation to an explanation of how EMI expertise is accomplished in interaction. As a working hypothesis, it provides

an open-ended representation of the phenomena that does not aim at generalizability, but can serve as a basis for future inquiry. The working hypothesis of EMI expertise as it is made visible and constructed in interaction is based on notions drawn from the three theoretical contributions. Figure 8.1 provides its diagrammatic representation. At the center of the diagram is the dynamic process of the construction and deconstruction of EMI expertise in interaction. EMI expertise is made visible through interactional phenomena derived from the three contributing sources discussed here. It is important to recognize that these frameworks are not mutually exclusive, rather providing alternative and complementary approaches to understanding how EMI expertise is made visible and is co-constructed in interaction. As a result, more than one aspect may be applied in the interpretation of any given interactional sequence. At the top of the diagram are the actions of coding and highlighting of professionally related phenomena, along with the construction and articulation of professionally relevant objects/artefacts. The lower left side of the diagram presents socialization processes through interactions with producers and consumers of EMI knowledge and with EMI-related objects, as well as evaluation of EMI-related artefacts. At the lower right hand part of the diagram are epistemic claims regarding the domain of EMI based on epistemic access, rights and responsibilities. In the following section of this chapter this approach will be used to frame analysis of the interactional accomplishment of EMI expertise during shared viewing of video recordings of classroom interaction.

Figure 8.1. Diagrammatic representation of the interactional accomplishment of EMI expertise



8.2 Data and analysis

The data drawn on for this chapter consist of video recordings of EMI classroom teaching and video-recordings of the shared viewing of these videos. The classroom teaching occurred in the eighth session (see Figure 4.2) whereas the shared video viewing data come from the tenth and final session of the EMI teacher development process. For initial content analysis, video-recordings were repeatedly viewed and content was mapped in tables which included either a summary or rough transcription of salient interactional data, a preliminary analysis of the data, and localization of data in the video recording. This initial content analysis of the video recording of shared video viewing was followed by the selection of relevant fragments for transcription. Repeated unmotivated viewings of data (persistent observation) allowed for the identification of, and focus on, salient elements emerging in interaction. Multimodal conversation analysis and epistemics-in-interaction frame analysis of the interaction. The results of the interactional analysis were confirmed through data sessions with informed experts and through confirmation of analysis by the content specialist herself.

Two interactional sequences of shared viewing of video-recorded documents of EMI classroom teaching are examined. Analysis of talk and embodied action explores the interactional accomplishment of EMI expertise during the actions of coding and highlighting of elements in one classroom interaction video in one shared viewing sequence and the action of assessment of classroom interaction during the second sequence of shared viewing. The participation of the material artefact (the video-recording of classroom interaction) in the achievement of these actions is also examined.

During shared viewing of EMI classroom interaction, the reproduction of the video of the content specialist EMI teaching was paused at different points and discussion between the two specialists ensued. The analysis of each sequence begins with a

presentation of the content of the classroom teaching video fragment under scrutiny by the two participants (the LS and the CS). The transcripts of classroom interaction include talk, a description of embodied actions, and screenshots. The analysis of the interaction between the LS and the CS during shared viewing of the classroom interaction is then presented, again including transcripts of talk, screenshots and embodied actions, such as gaze and gesture. Section 8.2.1 focuses on the actions of coding and highlighting in the interactional accomplishment of EMI expertise, Section 8.2.2 examines a sequence in which the interactional accomplishment of EMI expertise is visible in actions which involve the assessment of EMI classroom interaction.

8.2.1 Sequence 1: Coding and highlighting of phenomena in EMI classroom interaction

As explained previously, in this section analysis of the classroom interaction sequence video is followed by analysis of interaction during shared viewing of this same video. Section 8.2.1.1 presents the first classroom interaction video in which class discussion of an image of a laboratory test occurs. Section 8.2.1.2 reflects instances of the phenomena of coding and highlighting during the shared viewing of this first classroom interaction sequence.

8.2.1.1 Classroom interaction sequence 1

The classroom interaction video recordings were taken from an introductory class session from the subject Laboratory Practices in Molecular and Cellular Biology. This is the second EMI lesson taught by the CS, the first which she consented to filming. In this first classroom interaction sequence the CS has just explained to her students that at the end of their laboratory classes they will be asked to write a report in English presenting the results of their experiments. She has explained that they will need to include images of

laboratory results with appropriate headings. She then projects a slide with an image of a laboratory test of cells at different stages of osteogenic differentiation called a PCR (Polymerase Chain Reaction) and asks students to identify the image. The image projected on the classroom screen is titled: Osteogenic induction: Results analysis. The CS stands next to the screen with her gaze directed at the classroom screen where the image of a PCR is projected. The students are off camera, not visible.

Fragment 8.1

```
1          ((image of PCR appears
           on the screen))
2   CS     ok

           ((gaze directed at
           screen))
```

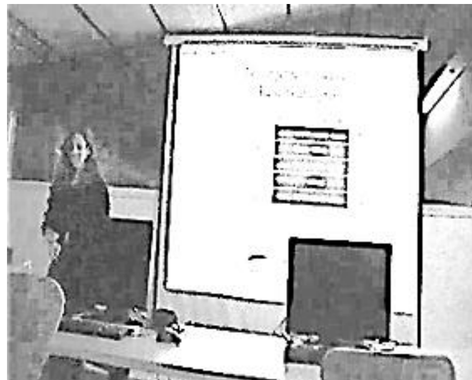
```
3   CS     here

           ((gaze shifts to the
           class, slight pointing
           gesture hands toward
           the screen))
```

```
4   CS     what is this

           ((gaze directed at
           class))

5   STS    pcr

6   CS     pcr ok
```

7 CS a:and?
((CS gaze shifts briefly to screen))

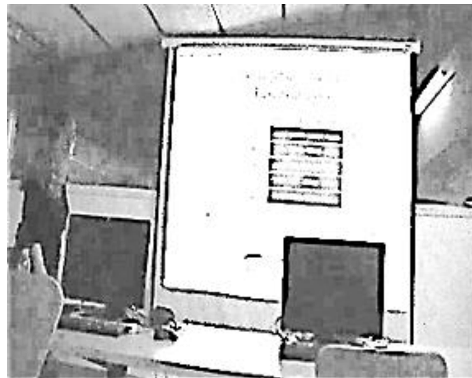
8 CS mm mm mmm

((shifts gaze to where the mouse is on the table in from of her, moves toward the table))



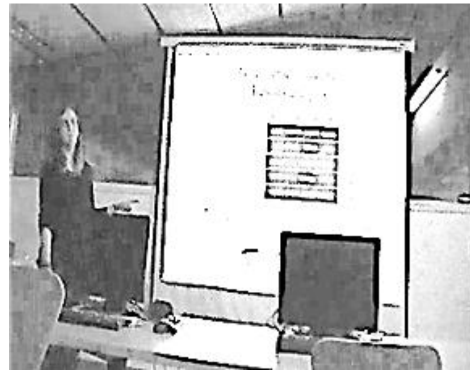
9 CS (i think i have xxx)

((mouse click followed by appearance of heading for image, CS gaze shifts to screen))



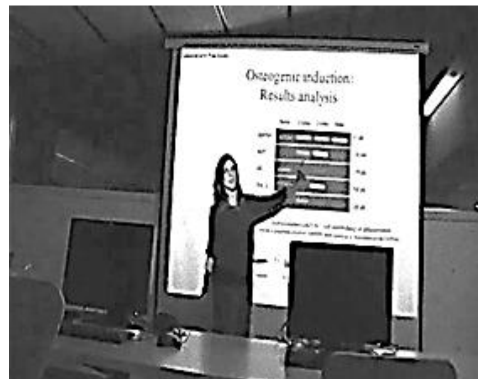
10 CS yes.

((gestures with left hand pointing to screen, shifts gaze briefly from screen to class, and then returns gaze to screen))



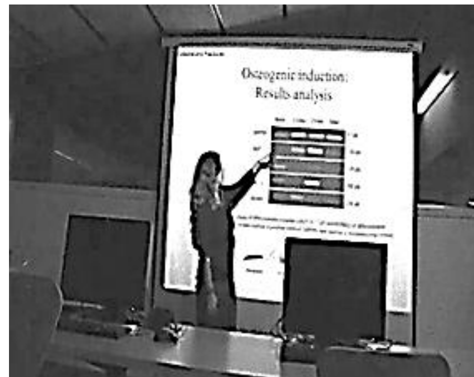
11 CS it’s a ↑pcr (.)with a differentiation process

((moves closer to screen, pointing with left hand, shifting gaze to class. Movement coordinated with speech ends with hand pointing at image, gaze at class as she utters the word ‘process’. Stands in front of the screen, covering part of the image))

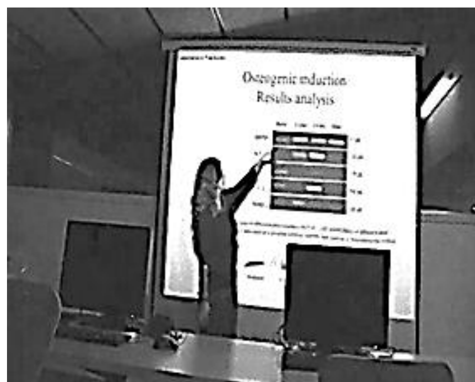
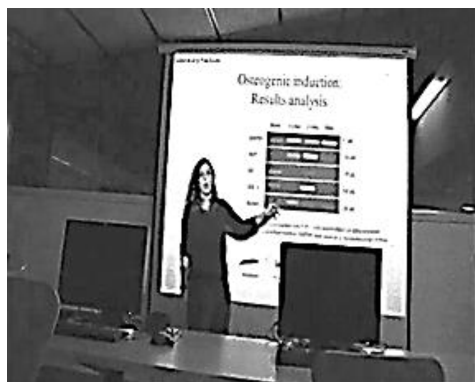


12 CS here

((moves to the side of the screen. The entire image becomes visible))



13 CS

the positive control is bone. ((gesture with left hand down the column on the far left, closest to the CS accompanied by a shift of body position to face the students and gaze directed at classroom))	
((Frozen image on laptop screen during interaction between CS and LS))	

The video-recorded EMI classroom sequence begins with the appearance of the image of the PCR results on the classroom projector screen. In lines 1-2 of Fragment 8.1, the CS deploys gaze shifts from the screen to the class and then back to the screen to focus class attention on the image projected on the screen. A deictic at line 3, ‘here’, accompanied by gesture toward the image and gaze shift to the class, initiates recruitment of student participation in the action of identification of the image. An IRF (initiation-response-feedback) sequence (Mehan, 1979) begins with an information request at line 4, “what is this?”, accompanied by the gesture at the image and gaze directed at the class, displaying a CS claim to authority with respect to the classroom activity. An aligning student response at line 5, “pcr”, reflects successful establishment of inter-subjectivity and joint participation in the activity of identification of the image. The CS’s repetition and confirmation of the students’ response at line 6, “pcr, okay”, makes visible a CS claim to authority both as content expert and as EMI teacher. Talk and embodied actions at lines 7 to 9 hold the floor for the teacher, while the mouse click at line 9 is followed by the

appearance of the heading of the image on the screen. The appearance of the heading identifying the image as a PCR confirms the CS identification of the image as displayed by the CS utterance at line 10, "yes". In this way, the document on the screen participates in the CS claim to authority based on her access to content knowledge. A new activity of teacher expansion of the student response begins with repetition of the student response and expansion at line 11, "it's a pcr with a differentiation process". In this turn talk is synchronized with the embodied actions of movement toward the screen and a pointing gesture in the accomplishment of the action of specification of the explanation. In line 12, an ensemble of actions including a position shift to allow visual access to the entire image, a deictic in talk "here" and gesture (pointing gesture at one specific part of the image) focus attention on one part of the image, the column on the left in the screenshot, closest to the CS. Talk at line 13, "the positive control is bone", along with gestures up and down the left column continues the action of elaboration and expansion of the student explanation of the image, which finalizes with the redirection of the CS gaze from the screen to the classroom audience.

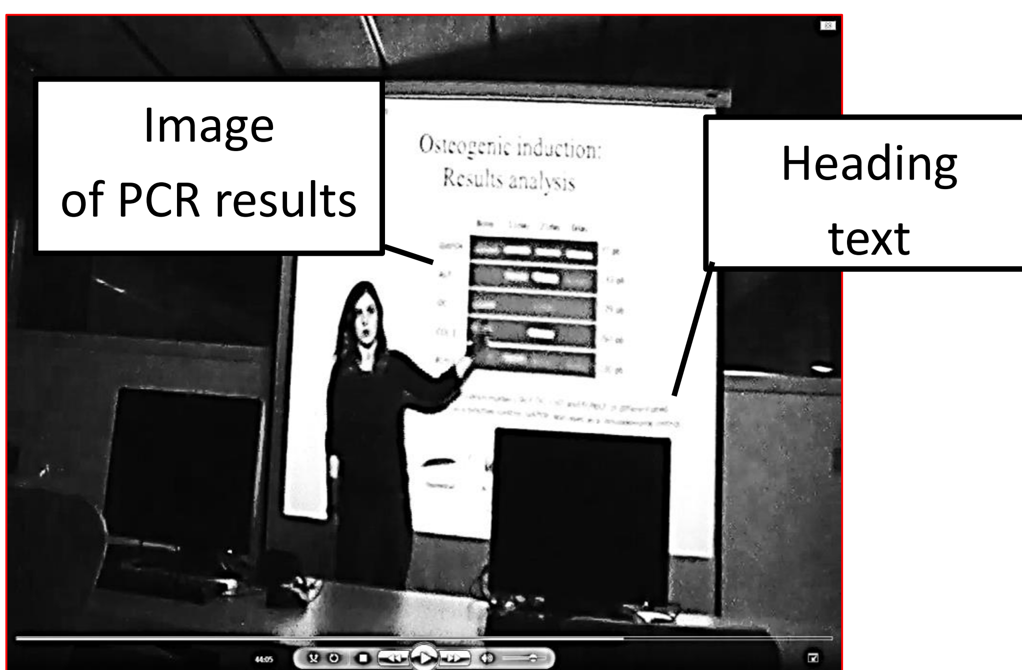
Overall, the content of the video-recording displays the CS's claims to authority with respect to the domain of EMI, based on her access to EMI-related knowledge, as well as the display of her claim to the right and responsibility to direct the EMI classroom activities as an EMI teacher. Aligning student responses make visible the establishment of intersubjectivity, and joint participation in the EMI classroom activity of identification of the image. The following section presents the interaction between the LS and the CS (Fragment 2), which occurs during joint scrutiny of this part of the video-recorded document.

8.2.1.2 Shared viewing of classroom interaction sequence 1

This fragment of shared video viewing was recorded during the final session of the DP-EMI process. During the shared video viewing the LS and the CS are seated next to each other with a laptop computer in front of them on the table. The participants are silently watching the video of EMI teaching by the CS on the laptop screen. The LS is seated on the right side of the frame, while the CS is positioned on left side of the frame. Immediately before Fragment 8.2 begins, the LS pauses the video reproduction with a mouse click and asks the CS if she remembers the episode and what she was trying to do at this point in the classroom interaction. The frozen image which is on the screen is reproduced here with labelling of two phenomena in the complex visual field which become the object of joint scrutiny and participate in the actions of coding and highlighting in the interaction: the image of the PCR and the text of the heading which labels it.

Figure 8.1

Frozen image on screen during the dialogue between the CS and the LS



Fragment 8.2

1 LS do you remember what you're doing here?

((LS shifts gaze from screen to CS. CS gaze shifts from screen to LS))

2 what are you doing here? [XXX

((LS gaze shifts briefly to screen and then back to CS. CS gaze shifts to screen))

3 CS yes i'm asking them uhh [some questions

((CS gaze shifts briefly from screen to LS and then back to screen))

4 LS [abo:ut?

5 CS [about different results-

((CS points briefly to screen))

6 LS ok [so y-

7 CS -[in order to:o (tch)

((CS circular gesture toward screen))

8 know how can they analyse the:e results

((gaze shifts to LS))

9 LS ↑↓ok:ay.

10 is this to see if they know how-

11 is th-

→ 12 -are you checking to see (.)their know↑ledge?

((CS nodding))

13 CS yes yes

((nods looking at LS))

14 LS XXX

→ 15 CS >i'm checking<

16 =.and (tch)also i:i try to:o (.)

17 explain how they ca:an uhh (tch)explain >and and<

((CS performs drawing movements on the table in front of her)))

18 design a picture

19 with the results and the (#)

((open handed palm down gesture R hand, taps fingers on table simultaneous with the word 'results'))

20 and (.) the <u>text</u>

((CS points to screen))(.)

21 LS umm hmm¿

22 CS of the figure or something like this

((CS gaze upward toward ceiling, and then shifts to LS))

Fragment 8.2 begins with the LS-initiated action of pausing the reproduction of the video recording with a mouse click, an action which displays an LS claim to authority and entitlement with respect to control of the viewing process. After the video reproduction is stopped, both CS and LS gaze is shifted from the laptop screen to establish mutual gaze, signaling a change in activity from that of 'video watching' to the emerging activity of 'explaining'.

The ‘explaining’ activity begins with an LS information request, at line 1 regarding the frozen image visible on the laptop screen, “do you remember what you’re doing here?” This information request displays an attribution to the CS of epistemic superiority with respect to what she was ‘doing’, essentially a request for an explanation of her intentions, a domain of personal knowledge to which the CS can claim absolute epistemic authority.

Turn construction in line 1 with “do you remember” makes relevant CS cognitive processes and a preferred CS response is contingent on CS remembering what she was doing. This initial information request is reformulated at line 2 to “what are you doing here?” In this repaired information request, the attribution of epistemic authority to the CS is upgraded by elimination of the reference to remembering, avoiding the possibility that the CS could claim that she doesn’t remember what she was doing. At the same time, an LS gaze shift to the referent of the information request (the actions in the video on the laptop screen), is followed by a shift of gaze to the CS. Mutual gaze signals the end of the LS turn, displaying the creation of an interactional space for a response on the part of the CS.

The initial CS response is comprised of a shift of gaze to the ‘explainable’ (the laptop screen), followed by the utterance in line 3, “yes, I am asking them uh some questions”. This response displays CS alignment with the attribution of her entitlement to explain what she was doing in the video recorded document. The response involves initial codification in talk of the actions contained in the video document, beginning initially with a more generic/non-specific explanation of the actions, “I am asking them some questions”, at line 3. In the following turn at line 4, the LS’s utterance, “about”, is an incomplete question (Koshik, 2002), a prompt typical of teacher-student classroom interaction designed to elicit expansion (Mehan, 1979). Expansion of the CS response at

line 5, “about different results”, is accompanied by the CS’s orientation of gaze toward the laptop screen and a pointing gesture. Elaboration of the original explanation is performed though an ensemble of talk and gesture, where specification/signification of ‘results’ includes a pointing gesture toward the complex visual field on the computer screen, highlighting the image which represents the results of the PCR process. The explanation is briefly interrupted by the LS’s acknowledgement and an attempt to offer an inference, as marked by “so”, in line 6: “ok, so y-“. However, this turn is interrupted by the CS at line 7 as CS talk continues with an account for her actions “-in order to:o (tch).” An ensemble of a rolling gesture with hand toward the screen and stretched vowel maintains the floor during what appears to be a word search sequence. The account for the observed actions ends at line 8 “know how they can analyze these results”, where falling prosody and mutual gaze indicate the end of the turn.

This explanation is followed by the LS’s acknowledgement at line 9 with “okay”, and a new attempt to reformulate or expand on the explanation at line 10. This clarification request begins with what appears to be an interrupted candidate explanation of the actions in the video “is this to see if they know how”. Once again, turn construction as a question displays an LS claim to lower epistemic stance with respect to explanation of the content of the video. Self-initiated repair in the following turns reformulates the candidate prompt to “-are you checking to see their knowledge” at line 12. This reformulation of the information request displays a candidate codification of the actions as ‘checking knowledge’.

An embodied CS response, nodding, displays alignment and confirmation of the proposed codification of the actions at line 13. Mutual gaze and repeated affirmative verbal response, “yes, yes” at line 13, display CS claims to authority and entitlement to code the actions. A temporally compressed CS turn at line 14 “>I’m checking<”

maintains the floor and incorporates the lexical item of ‘checking knowledge’ as an explanation of the actions observed in the video.

Displays of CS’s claims to epistemic entitlement regarding the content of the video are also visible in her turns at lines 16 to 19, in which she extends her explanation of the observed actions to include the objective of teaching the students how to design a picture of results and accompanying text. At line 16, “and (tch) also I try to”, a left push maintains the floor and the combination of talk, gaze toward the screen and gesture toward the screen perform a modified repeat and extension of the codification of the actions in the video. This modified repeat/expansion also displays a CS claim to authority entitlement with respect to the actions that are visible on the screen. Expansion of the explanation/codification of the actions in the video beyond that of ‘checking knowledge’ continues at line 17, “explain how they can uhh (tch) explain and and”, where combinations of embodied actions and talk at lines 17, 18 and 19 continue the content specialist explanation that actions in the video represent an attempt to show students how to design “a picture with the results and the text” as is seen in the frozen image of the laptop screen. Highlighting is visible in the pointing gesture which forms part of the explanation. Specification/signification of the creation of appropriate textual explanations for the images is performed through the ensemble of talk, ‘text’ and a pointing gesture toward the complex visual field on the computer screen which highlights the heading which accompanies the image of the results of the PCR process

In this fragment the actions of coding and highlighting contribute to the interactional accomplishment of EMI expertise during the activity of explaining the content of the video-recording of EMI classroom interaction. Coding takes place in the transformation of actions observed in the classroom interaction video to “checking knowledge”. Codification of the classroom actions as checking students’ knowledge (line

14) is extended by the content specialist through her explanation of her actions as teaching them how to design figures and headings in a project report (lines 16 to 19). Highlighting is visible in pointing gestures toward the laptop screen during the activity of explaining. These gestures mark specific phenomena, such as the PCR image, in the context of "asking about results" (line 5 of Fragment 2) or the image heading in the context of "designing a picture with the results and the text" (line 20 of Fragment 8.2). Coding and highlighting of phenomena in the complex semiotic field of the laptop screen contribute to the interactional activity of explaining the content of the classroom video, visibly marking the interactional accomplishment of claims to, and attribution of, authoritative epistemic stance with respect to the domain of EMI.

This fragment also exemplifies how the socialization processes involved in the accomplishment of EMI expertise are mediated by the material artefact of the video recording of EMI classroom interaction. The mediating role of material artefacts in the DP-EMI process will be analyzed in the Chapter 10 of this dissertation.

8.2.2 Sequence 2: Assessment of phenomena in EMI classroom interaction

The analysis of a second sequence of shared viewing of classroom interaction focuses on the attribution of, or claims to, epistemic access, epistemic rights or entitlement and epistemic responsibility with respect to the domain of EMI during the action of assessment of an EMI-related material artefact: a second classroom interaction video. As in the previous section, two transcripts are presented: one transcript of the classroom interaction and one of the interactions during shared viewing of the classroom interaction video. As before, the transcription includes talk, embodied actions, such as gesture and gaze, and accompanying screenshots. The transcription of classroom interaction is accompanied by a diagram of the content of the image of the PCR on the classroom

screen. The transcription of shared video viewing is accompanied by a screenshot of the frozen image which is visible on the laptop screen during the discussion of the sequence.

8.2.2.1 Classroom interaction sequence 2

The video recording under scrutiny follows immediately after the classroom interaction video Fragment 8.1 presented previously. The CS is standing in front of the classroom projection screen where the image of the PCR is projected. Her gaze is directed at the students.

Fragment 8.3

```
1 CS   here the positive
       control is bone

       ((Standing in front of
       the screen, gaze
       directed at class,
       points to the column on
       the left of the
       screen))
```

```
2      its uh mandib-uh

       ((Gesture towards her
       own left mandibula))
```

3 a fragment of the mandibular bone

((Gesture towards her own left mandibula))

4 and the negative control is uhh

((Points to column furthest on the right of the screen))

5 cells at day 30

((Moves away from the screen toward the mouse on table))

6 and you have uhh

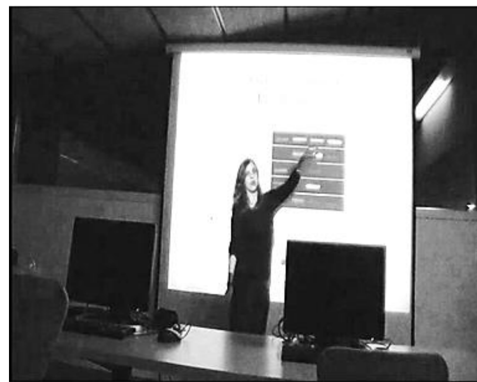
((Gaze shifts to screen, moves toward the screen))

7 the analysis at day 11

((Gaze directed at class, points to column entitled day 11))

8 and day 21

((Gaze directed at class, points to column entitled day 21))



9 ((moves back away from the screen, gaze directed at screen))

Figure 8.2

Frozen image on screen during the dialogue between the CS and the LS

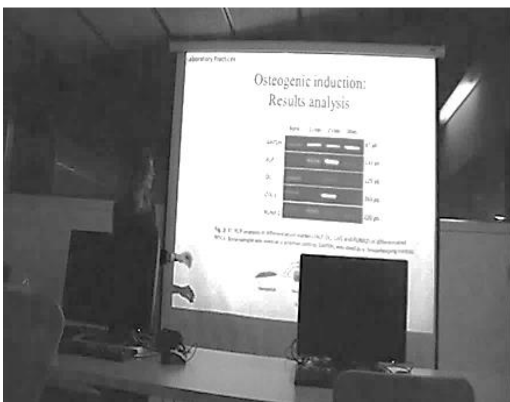


Figure 8.2 PCR image on classroom screen

Positive control

Negative control

Osteogenic Induction Results analysis					
	Bone	11 days	21 days	0 days	
GAPOH					87
ALP					123
					139
					263

The EMI classroom sequence in Fragment 8.3 consists of the CS's explanation to her students of the image of the PCR results on the classroom projection screen, an activity which displays the CS's claim to authority within the EMI classroom and her epistemic authority with respect to the content of the image. The action of explaining involves an ensemble of both talk and embodied action. At line 1 of Fragment 8.3, CS gaze at the classroom audience recruits student attention while the deictic "here" coordinates with pointing gestures which mark the area of the complex visual field where shared classroom attention should be focused. Attention is focused on the column closest to her, on the left of the image, representing the positive control. These embodied actions are accompanied by the utterance "the positive control is bone". At lines 2 and 3 the explanation is expanded through both talk and embodied movement, where the utterances "its uh mandib, uh a fragment of the mandibular bone" are accompanied by gestures toward the CS's own left mandibula. The explanations of the negative control (line 4), the cells at day 21 (line 7) and day 11 (line 8), are all accompanied by gestures towards the relevant

columns, thus highlighting the areas of the image which represent results at the different stages of the process. As in the previous classroom interaction fragment, the content of the video-recording displays the CS's claims to authority with respect to the domain of EMI, based on her access to EMI content-related knowledge, as well as the display of her claim to the right and responsibility to direct the EMI classroom activities as an EMI teacher. The explanation of the image on the screen involves codification of specific phenomena visible in the image as the positive or negative control, cells at day 11 or 21, along with highlighting through marking of specific areas of the image through pointing gestures. The following section presents the interaction between the LS and the CS (Fragment 8.4), which occurs during joint scrutiny of this part of the video-recorded document.

8.2.2.2 Shared viewing of classroom interaction sequence 2

This fragment was recorded during shared video viewing in the tenth and final session of the DP-EMI process. As described previously, the LS and the CS are seated with the laptop computer in front of them on the table. The participants are silently watching the video of EMI teaching by the CS on the laptop screen. The LS is seated on the right side of the frame, while the CS is positioned on left side of the frame. Fragment 8.4 begins with a spontaneous contribution by the CS regarding what is taking place in the classroom interaction segment 2. The CS points to the screen and begins talking. The LS then stops the video reproduction.

Fragment 8.4

		Shared viewing in silence	
1	CS	here >first of all< ((CS pointing gesture to the image))	
2		((LS Gaze shift to keyboard as she stops video reproduction))	
3		I ask them that uhh ((LS gaze shift back to screen))	

	4		what kind of technique is (.) this (.) image ((LS nods))	
	5	LS	is this image. ((LS shifts gaze to CS))	
→	6	LS	did they know? ((LS gaze directed at CS))	
	7	CS	>yes yes yes< (.) ((CS nods, continues to direct gaze at screen))	

8 LS [ok

((LS gaze shifts to screen))

9 CS [and they said

it's a pcr

((imitating students' voice))

10 ((CS gaze shift to LS. LS gaze at screen))

11 LS ok good

12 so they knew that(.)

13 then what did you do?

((LS gaze shift to CS, CS bites lip))

14 CS yeah (.)

	15		and <u>then</u> ummm I asking that
	16		maybe i asked a question¿ about the interpretation of- ((CS quizzical facial expression))

	17	LS	ok let's see what you-
	18		so here you're- (.) ((LS gaze directed at laptop screen quizzical facial expression))

→	19		what were you saying just now? what was that about? ((LS puts pencil on table))

	20	CS	uhhh it is about uhh bone differentiation

21 LS okay

22 CS in-

23 with our stem cells
at day 11 and day 21
of differentiation

24 [and here we have a
positive control

25 LS [.hhh

26 CS [maximal bone

((CS shifts gaze
from screen to LS))

27	LS	[ok and these are markers (.)for different stages?	
28	CS	for different- yes.	
29	LS	ok. that's what you were saying	
30	CS	different genetic markers. yes.	
31	LS	ok so that's what you were saying.	
→ 32		ok I didn't understand that (.) ok	

As opposed to the previous example of the shared viewing of the video recording (Fragment 8.2), this sequence begins with the CS's initiation of the change of activity from that of watching/observing the video to that of commenting on/explaining its content. In this case, an ensemble of talk, "here, first of all," and pointing gesture toward

the laptop screen at line 1 is followed by an LS gaze shift to the keyboard as she pauses the reproduction of the video. The CS's initiation of the activity of explaining makes visible both a claim to epistemic authority regarding the content of the video recording and entitlement with respect to the organization of the viewing session. LS alignment with these claims is visible in her embodied action (the mouse click) which pauses video reproduction at line 2, initiating the change of activity from watching to explaining. At line 1 an ensemble of talk (the deictic "here") plus gesture (pointing to the screen) highlight a salient part of the semiotic field on the laptop screen as the focus of scrutiny. The first position CS explanation of what she is "doing" in the video beginning at line 1, "here first of all", continues at line 3 with a general explanation, "I ask them that uhh", accompanied by a pointing gesture toward the screen that ends simultaneously with the word 'that'. This general explanation is expanded at line 4, "what kind of technique is this image". At line 5 LS repetition of CS utterance and her gaze shift to the CS display alignment with the explaining actions of the CS and the claim to CS epistemic authority displayed by them.

At line 6 a language specialist question, "did they know?", initiates a new action sequence, that of assessment of student knowledge. The LS request that the CS assess student knowledge displays an attribution to the CS of epistemic authority regarding the EMI classroom sequence. The CS aligns with this attribution by responding with the requested assessment at line 7. The CS assessment of student knowledge is accomplished in talk "yes yes yes", and embodied action (nodding). The fact that the LS gaze is directed at CS during the assessment sequence, and not at the laptop screen, may also be interpretable as a display of her attribution to the CS of the authority to assess student knowledge. Independent assessment of student knowledge on the part of the LS would be based on her observations of the actions which occur on the laptop screen, an embodied

action which is notably absent at this point in this sequence. At line 8, an acknowledgement token, "ok", displays LS alignment with the CS assessment of student knowledge. The content specialist expands the assessment sequence at line 9 with evidence quoted directly from the video recorded classroom interaction: "and they said 'it's a pcr'" in which prosody signals her imitation of the students' voices.

This expansion is followed by a gaze shift to the LS, seemingly signaling turn completion at line 10, but mutual gaze is not established at this point as the LS maintains her gaze on the laptop screen. At line 11, LS acknowledgement and agreement with CS assessment displays attribution of authority to CS. This is followed by an LS inference at line 12, "so they knew that" followed by a slight pause, marking the end of the assessment sequence. In this example, the interactional accomplishment of EMI expertise is made visible in the co-construction of CS assessment of student knowledge.

At line 13, an ensemble of an LS gaze shift back to the CS and an LS information request as to what the CS did next projects the reinitiation of the CS explaining activity of the classroom interaction, but in this case the request is for a CS explanation of interaction which has not been viewed up to this point. LS lip biting at line 13, delay at line 14, quizzical facial expression and inclination closer to the screen, along with the candidate explanation at line 15 "maybe I asked a question" with rising prosody seem to display her trouble in providing a preferred response regarding what she "does" in the next sequence. In the following turn at line 17, the LS begins a self-interrupted suggestion to "see" what is happening next, projecting the re-initiation of the activity of watching the video. The action sequence is shifted at line 18, however, when a self-repaired candidate inference "so here you're- (.)", along with LS gaze directed at laptop screen and a quizzical facial expression, preface the re-initiation of the explanation of the current classroom interaction under scrutiny.

At line 19, an information request regarding what the CS was saying, “what were you saying just now?”, and a request for an explanation of the image. “what was that about?”, are accompanied by the LS embodied action of putting the pencil on table, making her right hand available for gestures toward the laptop screen. Although LS gesture toward the screen is not clearly visible in the video-recording, evidence that the LS is referring to the PCR image on the laptop is provided by the following CS turn, at line 20, when the CS begins an explaining sequence of the image, “uhhh it is about uhh bone differentiation”. The explaining sequence is accomplished through an ensemble of talk, gaze directed at laptop screen, and pointing gestures toward the screen at lines 20 through 26. As discussed previously, explanation of the image displays a CS claim to authority based on her access to content-related knowledge. A language specialist inbreath at line 25 overlaps the end of the CS explanation and is followed by a CS gaze shift from the screen to the LS. An acknowledgement token at line 27 displays LS alignment with the explaining activity and the claim of CS epistemic superiority it displays. This is followed by a LS first position candidate explanation, “and these are markers (.) for different stages?” that displays a counter claim to authority, although turn construction in the form of a question downgrades this claim.

Line 28 consists of a cut off CS repair which consists of modified repetition of the LS utterance “for different-” and “yes”, arguably a confirmation of the LS candidate explanation, both of which display CS claims to epistemic authority. Again, the interactional accomplishment of EMI expertise is made visible in the co-construction of content specialist confirmation of the LS candidate explanation. A first position inference at line 29, “ok. that’s what you were saying” performs the action of claiming that the LS now understands the image, providing a possible interactional space to end the explaining sequence. The CS however, extends the repair and confirmation of the LS explanation

sequence with reformulation at line 30, where “markers for different stages” is reformulated to “different genetic markers. yes.” A repeated LS utterance at line 31 “ok so that’s what you were saying” once again displays a LS claim to epistemic access to the content of the classroom interaction. At line 32 the LS utterance “ok I didn’t understand that ok” suggests the role of the CS in this change of LS epistemic access to the content of the EMI classroom interaction. Turn construction with past tense suggest at this point that she now understands the image, while making explicit the role of the CS explanation for her understanding of the image.

In these two sequences, coding, highlighting and assessment are involved in the interactional accomplishment of claims to, and attribution of, authority with respect to the domain of EMI. In the first shared viewing sequence, coding of classroom interaction and highlighting of salient information in the complex semiotic field on the laptop screen display content specialist claims to epistemic authority with respect to a domain of content-related knowledge. In the second sequence of shared viewing of classroom interaction, assessment and repair of student and language specialist explanations of the image on the screen are visible, co-constructed instances of the interactional accomplishment of EMI expertise. As in Chapter 6 and 7, a material artefact, in this case the video-recorded document of EMI classroom teaching provides the substrate which mediates these actions.

8.3 Discussion

It has been argued throughout this thesis that a lack of research exists which examines how planned EMI teacher development initiatives are executed in interaction, and how the development of EMI expertise is helped or hindered in interaction in these processes. The study of how EMI expertise is accomplished –that is to say, how it is made visible

and constructed in interaction– requires a theoretically-grounded approach. This chapter attempts to address this need by proposing a working model for the close examination of EMI teacher development processes and how EMI expertise is accomplished in them. The application of the approach to data collected during one teacher development process for EMI provides evidence for the usefulness of the working hypothesis and heuristic model. For this study, EMI expertise is conceptualized not as a static state, but rather as a situated phenomenon, co-constructed and made visible in social interaction involving people and professionally-related objects. It is proposed that EMI expertise is constructed and made visible in interaction through claims to, and attribution of, epistemic access, rights and entitlement, and responsibility with respect to the domain of EMI. Activities such as the coding, highlighting, and assessment of EMI-related objects and actions are viewed as loci for the interactional accomplishment of EMI expertise.

These findings suggest that the heuristic model may be useful in orienting the study of teacher development processes and how EMI expertise is accomplished in interaction. As explained earlier, EMI teacher development may be viewed as a process aimed at facilitating a change in content specialists' status regarding the domain of EMI from an initial unknowing status to a knowing status. This process is accomplished in interaction through the participants' claims to, and attribution of, authoritative epistemic stances with respect to the domain of EMI. During the activity of joint viewing of EMI classroom interaction, claims to epistemic authority based on epistemic access, entitlement and responsibility are made visible in actions such as assessment, coding, and highlighting of EMI-related actions and objects.

The findings also suggest the key role of the material artefacts, the video-recorded documents of classroom interaction, in the accomplishment of EMI expertise. Analysis of other interactional sequences in Chapter 6 and Chapter 7 also suggests the important

role of material artefacts in other activities. These include the role of an official document containing a description of the teacher training process during the initial negotiation of participant roles in the DP-EMI process, and the role of a lesson-planning document in the organization of an upcoming EMI lesson. Analysis of the roles of material artefacts in the DP-EMI process is included in Chapter 9 of this dissertation.

The findings of this chapter may prove useful in the orientation of the interactional organization of EMI teacher development in that they add to the body of evidence for the utility of the activity of shared observation and discussion of video-recordings of EMI classroom interaction in the interactional accomplishment of EMI expertise. Mere visualization of the EMI teaching contained in the artefact, however, does not necessarily facilitate the accomplishment of CS EMI expertise. On the contrary, results suggest that the accomplishment of EMI expertise involves epistemic positioning through talk in interaction, embodied actions and the material artefact. All three elements participate in claims to EMI knowledge and the positioning of the participants as experts. Although the results of the analysis in this chapter cannot be generalized, the findings suggest that further exploration of the credibility of the heuristic model in other data sets from other EMITD processes is warranted. EMI teacher trainers may also consider the incorporation of activities which include actions providing opportunities for the interactional co-construction of EMI expertise during video viewing, such as coding, highlighting, or assessment of EMI-related actions.

Chapter 9

Emerging findings regarding the DP-EMI process

This chapter presents two additional findings which emerged in the overall analysis of the EMI teacher training process studied in this dissertation. One involved the transformative potential of development partnerships, reflected in comparison of interactional data collected early and late in the process. This analysis is presented in section 9.1. The other emerging finding was the role of material artefacts throughout the DP-EMI process, the focus of Section 9.2. Both of these findings are studied within the theoretical frame for DP-EMI, originally proposed by Moore, Ploettner and Deal (2015), and which has been presented in Chapter 4 of this dissertation.

9.1 The transformative potential of the DP-EMI process

This section will examine the transformative potential of the DP-EMI process presented in this dissertation. A brief summary of the theoretical notions which underpin the DP-EMI is followed by a comparison of analysis of data collected at the beginning and the end of the teacher development process. The comparison will focus on both shared views of plurilingual practices and on the participation frameworks in data collected in sessions at the beginning and end of the DP-EMI process.

In the presentation of the development partnerships in Chapter 4, it was observed that DP-EMIs were originally conceived of as existing at the boundary between the activity system of teaching content in English and the activity system of teaching English through content. Boundary objects, which could be either material or conceptual mediating tools, facilitate interdisciplinary dialogue at the boundary. DP-EMIs are conceived of as facilitating the dialogical co-construction of knowledge in relation to the shared object of the teaching of content subjects in English. As such, they are a site where

teacher cognition in relation to this object can be traced and potentially restructured and transformed. As explained in Chapter 2, this dissertation is guided by a social construction view of cognition. This perspective implies that cognition and learning are co-constructed and made visible in interaction. For this reason, in Chapter 5, membership category analysis (MCA) of interactions between the content specialist and the language specialist during the development process was used to gain access to shared worldviews of EMI. In this section, interactional sequences from the tenth and last DP-EMI session are analysed and the results of these analyses are compared with analyses of data drawn from Session 1 (presented in Chapter 5). Both the shared world views of EMI and plurilingual practices and the co-constructed participation frameworks at the beginning and end of the process are compared. These comparisons provide evidence of the transformative potential of the DP-EMI process.

It will be remembered that MCA of the segment presented in Chapter 5 suggested an underlying monolingual model of/approach to language learning which formed the foundation for implicit policies prohibiting the use of Spanish or Catalan in the EMI classroom. Despite the observation that the existence of such a policy created tensions for the EMI teacher and conflicts in EMI classroom interaction, it was seen that these tensions remained unaddressed and the upshot of the interactive work was continued support for a monolingual approach and unresolved tensions. The participation of the language specialist in this interactional sequence was particularly noted, as language specialist actions resulted in a lost opportunity to explore these tensions or question this world view of EMI. Interactional segments during shared video viewing from Session 10 provide a contrasting image. Two fragments are presented here. In both of these fragments, plurilingual practices are the topic of interaction.

A first sequence occurs during shared video viewing in the tenth session. Immediately before this fragment begins, the LS and CS are viewing a segment of classroom interaction video in which a student poses a question in Catalan. In the classroom video the CS subsequently responds to the question in Catalan. The fragment begins with a spontaneous CS utterance which topicalizes the students' use of Catalan. A screenshot taken at this point of the interaction is provided. The LS subsequently pauses the reproduction of the video recording and the following interaction occurs.

Figure 9.1 "and he's answering in Catalan"

Fragment 9.1

```
1   CS  and he’s answering in catalan
        ((Mutual gaze, smiling facial expressions. CS right hand
        raised with index finger pointing upwards, LS nodding))

2   LS  yeah that’s ok.
        ((CS and LS gaze shift to laptop screen))

3   CS  and i answered (.) yes he he

4       ›because here i was a little nervous‹

5       ›like oh come on its not possible that you don’t understand
        me‹

6       and and i explain in catalan

7   LS  umm hmm

8   CS  my answer is in catalan
        ((CS  R hand to mouth, as if biting her nails))
```

```
9    LS  do you think-
10       why do you think you did that?
11   CS  maybe because they uhhh
12       the  answer was in catalan their answer was in catalan
13   LS  their q- their answer no
14   CS  well their question because it's not an answer
15       it's like a question
16       °aixó no entenc°
         ((CS imitates student voice))
17       and because its uhh easier to to explain in catalan
18   LS  maybe to help him to understand
19       maybe you are trying to help him a little bit
```

Without going into detailed analysis of this fragment, two relevant points deserve attention. These involve both the co-constructed view of the use of Catalan in the classroom and the language specialist actions in this sequence which create the opportunity to explore classroom practices and alternatives to monolingual approach to language teaching and learning.

Regarding the co-constructed view of plurilingual practices, a student's use of Catalan in the EMI classroom is topicalized by the content specialist at line 1: "and he's answering in Catalan." At this point, mutual gaze, the raised hand gesture and smiling facial expressions suggest the unlicensed character of this reported action. An LS positive assessment at line 2, "yeah that's ok", is followed by the CS topicalization of her own use of Catalan in the classroom at line 3. This topicalization begins as a cut-off declaration, "and I answered yes he he", which is interrupted by an inserted account at lines 4 and 5, "because here I was a little nervous, like oh come on its not possible that you don't understand me." The cut off declaration is completed at line 6: "and and I explain in Catalan." Laughter, facial expression and gesture, as well as turn construction

involving an inserted account signal the delicate, trouble-associated aspect of the declaration, again suggesting the unlicensed character of the use of plurilingual practices.

At this point, an interrupted LS candidate inference at line 9, “do you think”, is reformulated to an information request at line 10, “why do you think you did that?” This question initiates a series of accounts for the use of Catalan. The CS offers two different accounts for her use of Catalan. The first involves the student’s use of Catalan, at lines 11 and 12, “maybe because they uhhh the answer was in Catalan their answer was in Catalan.” In this account the CS orients towards the students’ use of Catalan as the motivation behind her own use of Catalan in response. A second CS account at line 17 “and because it’s uhh easier to to explain in Catalan”, orients toward her difficulty in providing an explanation in English. The LS at lines 18 and 19 provides an alternative candidate account of supporting student learning: “maybe to help him to understand, maybe you are trying to help him a little bit.” This account is later taken up by the CS within the same sequence, when she again topicalizes her use of Catalan in the EMI classroom in the fragment presented here.

Fragment 9.2

```
1    CS   and here i repeat the question in spanish
2    LS   in catalan and in spanish
3    CS   in catalan and spanish yeah
4         because i think that
5         ok this is a very difficult question ↑no
6         maybe it’s a little difficult and
7         maybe if i repeat in spanish
8         they understand better ↑no
```

Again, without attempting exhaustive analysis of the interaction, several interesting aspects emerge. Unlike the previous fragment, the topicalization of the use of Spanish and Catalan at line 1 and 3 is no longer accompanied by laughter. In addition, the account for the use of Spanish and Catalan no longer rests on the students' use of Catalan or Spanish, nor does it rest on the argument that it is easier for the content specialist to explain ideas. Instead, the content specialist accounts for her use of Catalan and Spanish in order to facilitate learning at lines 7 and 8, "maybe if I repeat in Spanish they understand better no."

Regarding participation, in Fragment 9.1, the LS question at line 10, "why do you think you did that?" initiates interactional work in which the use of plurilingual practices in the EMI classroom is explored and justified in certain circumstances. This interactional work contrasts with that presented in Chapter 5, in which language specialist actions did not align with CS topicalization of the tensions associated with the exclusive use of English. At the initial stages of the process this resulted in a lost opportunity to explore these tensions or question a world view of EMI which involved a monolingual approach to language teaching and learning. In Fragments 9.1 and 9.2 the topicalization of the use of Spanish and Catalan is followed by CS accounts for her use of Catalan and Spanish. Whereas in Fragment 9.1 this account occurs as a response to a LS information request at line 10, "why do you think you did that", in Fragment 9.2 the CS spontaneously offers an account for her use of Spanish and Catalan at lines 4 to 8, "because I think that ok this is a very difficult question no, maybe it's a little difficult and maybe if I repeat in Spanish they understand better no." In contrast with the sequence presented in Chapter 5, in these sequences, participation frameworks are co-constructed in which CS claims to authority regarding the process are aligned with by the LS.

In summary, the fragments presented here suggest a shift in the shared world view of EMI as involving strictly monolingual practices. Confrontation with the classroom reality of plurilingual practices, made possible through interaction mediated by the video recording, creates the opportunity for the shared recognition of hybrid practices involving the use of the students' L1 in the interests of learning. These data suggest the transformative potential of dialogic processes at the boundary, mediated by the video-recorded artefact. The mediating role of material artefacts in the DP-EMI process is the focus of the analysis of the following section.

9.2 Role of material artefacts in the DP-EMI process

In the examination and analysis of the interactional data, the participation of four different material objects emerged. These artefacts included two written documents and two video-recorded documents. The two written documents were an informative brochure containing an official description of the development group process, which participated in interactions in Chapter 6 of the analysis section and an EMI lesson plan document, which participated in interactions presented in Chapter 7. The two video-recorded documents are recordings of EMI classroom interaction, which participated in interactional sequences discussed in Chapter 8.

Regarding the participation of these material artefacts in interaction, this dissertation follows the perspective employed by Hazel, Mortensen and Rasmussen (2014) in the study of the material resources which people occasion in pursuing courses of meaningful interaction. As explained previously (Chapters 6 and 7), the analysis of participation of material artefacts in this dissertation focuses on the orientation of participants' talk and embodied actions toward the artefacts, but analysis is also made of the content of each the artefacts. As the content of the artefact is indexed and occasioned

by participants in the pursuance of social actions, analysis of the content becomes relevant to understanding how these social actions are constructed. The symbolic properties of the objects within the interaction are not considered innate, but rather analyzed from an emic perspective which examines participation of the artefact and its contents as it is perceived by the participants and occasioned in the construction of meaning. Analysis of the participation of each of these material artefacts is presented in the next three subsections. The first centers on the participation of the official written document describing the process, the second focuses on the co-constructed EMI lesson plan, and the third focuses on the video-recordings of classroom interaction. Analysis involves content analysis of each artefact, examination of the interactional context within which it participates, how participation is made visible, and the procedural consequences of artefact participation in interaction. The analysis is summarized in Tables 9.1 and 9.2 and is accompanied by a presentation of the implications regarding the role of material artefacts as boundary objects within the DP-EMI process.

9.2.1 Written document official description of DP-EMI process

This material artefact, arguably reflecting the institutional voice in the interaction, participated in interactions which were analyzed in Chapter 5 of this dissertation. The document in its entirety is reproduced in Annex 3. One particular section of the document that described the development group process and the roles of the participants is oriented toward by the participants in interaction. Content analysis of this section of the written document displayed an authoritative stance with respect to the organization of the DP-EMI process and the roles of the participants. Despite the fact that the document stated that the development groups were based on a rationale of reciprocity and mutual development, the description of the roles of the participants reflected an unequal

distribution of authority, assigning greater authority to the language specialist. This material artefact participates in initial negotiations regarding the roles of the participants. Participation is made visible in the orientation of the participants toward the document in both talk and embodied actions. As the object of reformulation/transformation in talk-in-interaction by the language specialist, this material artefact participates in LS claims to authority regarding how the process will be carried out and the roles of the participants.

9.3.2 Written document DP-EMI lesson plan

This material artefact drew from notes written by the language specialist at the end of DP-EMI session two and was typed and brought by the language specialist to the following teacher development session (Session 3). Although the content specialist contributed minimally to the production of this written document, the lesson plan document was principally created by the language specialist. Content analysis of document displays authoritative stances with respect to the organization of the EMI lesson, in this case, language specialist claims to authority regarding the organization of the upcoming EMI lesson. The material artefact participates in three negotiation sequences regarding the upcoming EMI lesson.

Participation of the written document is visible in the first sequence in orientation in talk and embodied actions in the formulation of proposals for the DP-EMI process. In this sequence, participation also includes incorporation of the textual content of the document in content specialist talk during the formulation of a proposal for the upcoming lesson.

Orientation towards the lesson plan document in talk and embodied actions also occurs during a content specialist proposal of modification in the lesson plan document.

In this case the document participates as the object of assessment in the formulation of modifications.

Finally, physical manipulation of the document may mediate the co-construction of affiliation in the third sequence, when the content specialist manipulation of the document mirrors document manipulation by the language specialist, possibly representing the participation of embodied actions in the co-construction of affiliation.

In these cases, the material artefact participates in the interactional accomplishment of content specialist EMI expertise during the actions of proposals and assessments, as well as in the co-construction of affiliation. The mediating role of video-recorded documents is examined in the following section.

9.2.3 Video recorded documents of classroom interaction

Video recordings of EMI classroom interaction participate in interactions which occur during two instances of shared viewing of classroom interaction sequences in Chapter 8. Content analysis of the classroom interaction video recordings displays content specialist claims to authority with respect to the domain of EMI, based on her access to content-related knowledge, as well as the display of her claim to the right and responsibility to direct the EMI classroom activities as an EMI teacher. Aligning student responses in the first classroom video additionally make visible the establishment of intersubjectivity, and joint participation in EMI classroom activity.

Participation of the video-recorded documents in each of the two examples is made visible in participant orientation in both talk and embodied actions. In the first example the action of coding of actions observed in the classroom interaction video as "checking knowledge" is accomplished through an ensemble of talk, gaze, and gesture. Participation of the material artefact in the action of highlighting is similarly visible in

pointing gestures toward the laptop screen which mark specific phenomena, such as the PCR image, in the context of “asking about results”, or the image heading in the context of “designing a picture with the results and the text”. In the second example, the participation of the video recorded material artefacts is visible in the orientation of the participants toward the video-recorded document in talk and embodied actions during the action of assessment of student knowledge. In both examples the material artefact, the video recording of classroom, interaction participates in the interactional accomplishment of content specialist EMI expertise.

In summary, these findings suggest the significant role of material artefacts in the EMI teacher development process studied in this dissertation. It would appear that, at least in this case, these material artefacts, or boundary objects not only facilitated interdisciplinary dialogue, but also participated in the interactional accomplishment of a variety of actions, ranging from the negotiation of relative authority within the training process, the co-construction of affiliation, and, importantly for this dissertation, the interactional accomplishment of EMI expertise. Practical implications of these findings will be examined further in the discussion section of this dissertation.

Table 9.2 Participation of written artefacts

Artefact	Content analysis of the artefact	Interactional context in which the artefact participates	How participation is visible	Procedural consequences
Written document official description of EMITD process	Content analysis of document displays authoritative stances with respect to the organization of the EMITD process	Initial negotiations regarding the roles of the participants	Orientation of the participants toward the document in talk and embodied actions	Material artefact as the object of transformation in talk-in-interaction. Material artefact participates in LS claims to authority regarding how the process will be carried out and the roles of the participants
Written document EMI Lesson plan	Content analysis of document displays authoritative stance with respect to the organization of the EMI lesson	Three negotiation sequences regarding an upcoming the EMI lesson	Orientation in talk and embodied actions in the formulation of proposals for the DP-EMI process Incorporation of the textual content of the document in the formulation of proposals. Orientation in talk and embodied actions. Document as the object of assessment in the formulation of modifications of the lesson plan Manipulation of the document in mimicry in affiliation	Material artefact participates in the interactional accomplishment of content specialist EMI expertise during the actions of proposals, assessments, and affiliation.

Table 9.1b: Participation of video recorded artefacts

Artefact	Content analysis of the artefact	Interactional context in which the artefact participates	How participation is visible	Procedural consequences
Video recorded documents Video recordings of classroom interaction	Content analysis of the classroom interaction video recordings displays content specialist claims to authority with respect to the domain of EMI, based on her access to EMI-related knowledge, as well as the display of her claim to the right and responsibility to direct the EMI classroom activities as an EMI teacher. Aligning student responses in the first classroom video also make visible the establishment of inter subjectivity, and joint participation in EMI classroom activity.	Shared viewing of classroom interaction sequences.	Orientation in talk and embodied actions. Coding is visible in talk in interaction through the transformation of actions observed in the classroom interaction video to 'checking knowledge'. Highlighting is visible in pointing gestures toward the laptop screen during the activity of explaining. In the second example, the participation of the material artefact is visible in the orientation in talk and embodied actions of the participants during the action of assessment of student knowledge	Material artefact participates in the interactional accomplishment of content specialist EMI expertise in the first example during the actions of coding and highlighting of phenomena during the explanation of classroom teaching actions. In the second example the classroom video participates in the action of assessment of student learning in the interactional accomplishment of EMI expertise.

Chapter 10

Main findings and conclusions

This chapter aims to present the main contributions of this thesis in relation to the research objectives and questions set out in Chapter 2 and the theoretical and methodological underpinnings outlined in Chapters 3 and 4, as well as in the respective analytical chapters, as well as to lay the grounds for future research. A summary of the objectives of this dissertation is presented in Section 10.1, Section 10.2, Section 10.3 Section 10.4 and Section 10.5, while Section 10.6 sets out practical applications and directions for future research.

10.1 Study objectives

This dissertation provides a theoretical and methodological framing for, and an in-depth analysis of, an EMI teacher development process which involved interdisciplinary collaboration between a language specialist and a content specialist. As such, it complements existing research by contributing direct evidence as to the inner workings of EMI teacher development at a local level and how EMI expertise is made visible and constructed in interaction. By providing a heuristic for the interactional accomplishment of EMI expertise, it offers an approach for understanding and analyzing EMI teacher training processes and how they support or hinder the accomplishment of EMI expertise.

The stated objectives of this dissertation have been:

- To study how a teacher development process for EMI is co-constructed in interaction between one content specialist and one language specialist.
- To examine interactional contexts within an EMI teacher development process in which EMI teaching expertise is accomplished

- To develop a theoretically-based understanding and a methodological approach to the study of the interactional accomplishment of EMI expertise

These objectives were formulated in research questions which are addressed here:

10.2 How the DP-EMI process is co-constructed at a local level

This broad question was sub-divided into three sub-questions, which are addressed individually. The first sub question (*What shared worldviews of EMI are co-constructed in interaction?)* was addressed in Chapter 5. In the analysis of this chapter it was observed that an overarching principle in the context examined was that EMI involved the exclusive use of English, with the use of Spanish as a dis preferred classroom practice. This shared worldview of EMI as a monolingual practice had implications for both the classroom interaction and for the teacher training process. On one hand, the EMI classroom was the locus of conflict between the obligation to use English exclusively, and classroom practices which involved the use of Spanish. The monolingual approach to EMI was identified as an underlying source of tension for the teacher as she oriented toward her obligation to maintain her communication in English despite the difficulties this represented due to her limited linguistic skills and knowledge. Further, she was obligated to supervise classroom interaction for the intrusion of languages other than the target language.

The second sub question (*How is the planned EMITD process implemented and interpreted in interaction?)* is the topic of Chapter 6. Comparative analysis of the planned process, reflected in the content of an official written document, with the process negotiated and co-constructed in interaction reveals significant differences. The originally planned roles of the two participants are redefined in talk in interaction. Whereas the process was planned to be one of mutual development and reciprocity based

on mutual support and development, analysis of talk-in-interaction and participation frameworks reflects a one-way process aimed at supporting the content specialist as an emerging EMI teacher.

A third sub question (*What participation frameworks are co-constructed in the initial negotiations of an EMI teacher development process?)* is also addressed in Chapter 6. The examination of claims to and attributions of, epistemic authority during the initial negotiations regarding the organization of the teacher development process reveals tensions which occur as participants attempt to establish their relative authority with respect to their roles and how the process will be carried out. Interaction analysis reveals participation frameworks based on an unequal distribution of authority largely in favour of the language specialist. This type of participatory framework does not facilitate interdisciplinary collaboration, which requires that each of the participants work from within their own domain of knowledge on a shared project. Interdisciplinary collaboration assumes that both participants claim authority with respect to the shared project they are engaged in. The data presented in Chapter 6 reflect participatory frameworks which do not meet this expectation.

10.3 How EMI expertise is accomplished in interaction

The second research question is addressed in Chapter 7, in which EMI expertise is conceptualized from the perspective of enactment of expertise and data analysis is framed by notions of epistemic-in-interaction. In an attempt to maintain clarity and validity, the broader research question is subdivided into sub questions. The first sub question (*In what interactional contexts is EMI expertise co-constructed and made visible?*) is addressed in Chapter 7. The findings presented in this chapter indicate that EMI expertise is co-constructed and made visible through attributions of and claims to epistemic authority. It

was argued that epistemic authority can be claimed or attributed based on the dimensions of epistemic access, primacy or responsibility. In the data analysis, display of content specialist epistemic authority based on epistemic access occurs when content specialist knowledge is shown to be relevant for the planning of an EMI lesson. Content specialist claims to epistemic entitlement occur when she proposes modification of the written lesson planning document, thus claiming epistemic rights with respect to the production of the EMI-related artefact. Attribution of epistemic responsibility is visible when information requests regarding plans for the upcoming lesson attribute to the content specialist the responsibility to plan the EMI lesson.

The role of material artefacts in the interactional accomplishment of expertise is addressed by the second sub-question (*How do material artefacts participate in the co-construction of EMI expertise and in the EMI teacher development process?)* The findings from Chapter 7 suggest significant participation of one material artefact, a written EMI lesson plan, in the interactional accomplishment of situated social actions. Close interactional analysis in Chapter 7 reveals how the material artefact participates as a resource in the formulation of proposals, as the object of assessment, and in the co-construction of affiliation. An overview of the participation of this and other material artefacts in the DP-EMI process is examined in more depth in Chapter 9, which presents emerging findings.

10.4 Modelling the interactional accomplishment of EMI expertise for future studies

Once again this broad research question is sub divided into two sub-questions, both of which are addressed in Chapter 8. The first sub-question (*How can the interactional accomplishment of EMI expertise be represented by a heuristic model?)* is addressed in

Chapter 8 in which an introductory theoretical section presents notions of professional vision, enactments of expertise, and epistemics-in-interaction, followed by a diagrammatic representation of the heuristic representing the interactional accomplishment of EMI expertise. In this same chapter the heuristic is applied to interactional data collected during shared viewing of video recorded EMI classroom teaching to address the second sub-question (*How can the application of the heuristic shed light on the accomplishment of EMI expertise?*) The findings of the analysis reveal how the use of the heuristic allows for the identification of actions such as coding and highlighting that also participate in the co-construction of EMI expertise in interaction.

10.5 Emerging findings regarding the DP-EMI process

As stated in Chapter 9, two types of findings regarding the overall process emerged in the comparison of data collected at different points in the process. These findings concerned the so-called transformative potential of the DP-EMI process and the role of material artefacts in the process. Conclusions regarding these two emerging topic areas are presented here.

With respect to the transformative potential of the DP-EMI process, comparison of both the shared worldview of EMI and participation frameworks in interactions which occur early and late in the process suggest the possible transformative potential of the process as suggested by the conceptualization of development groups as originally proposed by Moore, Ploettner and Deal (2015). Caution is strongly recommended in interpreting these findings. Sufficient evidence has not been provided here to claim that the process itself has led to permanent transformation of shared worldviews of EMI. Nor can it be claimed on the basis of evidence presented here that the types of participation framework have undergone a permanent shift in distribution of authority. The findings

however, are suggestive and provide sufficient reason to explore these aspects in other interactional sequences to build collections of evidence to rigorously address the issue of the transformative potential of this DP-EMI process.

The participation of material artefacts in the DP-EMI process was also examined in Chapter 9. Analysis revealed the significant role of material artefacts in the EMI teacher development process, as conceptualized by Moore Ploettner and Deal (2015). However, these material artefacts, or boundary objects, not only mediated interdisciplinary dialogue, but also participated in the interactional accomplishment of a variety of actions, ranging from the negotiation of relative authority within the training process, the co-construction of affiliation, and the interactional accomplishment of EMI expertise. The implications of these findings will be discussed in the following section, which addresses practical recommendations.

10.6 Practical applications and future research directions

In this section application of the findings, practical recommendations and directions for future research are presented.

Chapter 5 focused on participants' shared worldviews of EMI and the tensions which arose in an EMI context in which neither the teacher nor the students had English as an L1. Analysis revealed an underlying monolingual model of teaching and learning, which created tensions for both the emerging EMI teacher and interaction in the EMI classroom. Although these issues were made relevant by the content specialist, language specialist actions early in the DP-EMI process do not create opportunities to address these issues or to examine or consider alternatives to the monolingual approach.

These finding suggest that the individuals responsible for the planning and implementation of EMI teacher development in this context should take into account

existing language ideologies in relation to models of teaching and learning, as well as the repercussions such ideologies may have for how EMI is conceptualized and performed. While generalization to other contexts is not an objective of this case study, these findings may be transferable to EMI teacher training initiatives in settings similar to the one described here. In similar settings, EMI teachers and teacher trainers should be made aware of the possibility of the existence of monolingual models of teaching and learning as a potential source of tension, along with the possibility of the inclusion of alternative plurilingual approaches in the repertoire of teaching resources for EMI.

Chapter 6 focused on the negotiated organization of the teacher development process itself and shed light on how the planned DP-EMI project was interpreted and implemented in interaction. Analysis of different negotiation sequences reflected overall language specialist claims to entitlement regarding the process and the co-construction of participation frameworks which did not facilitate interdisciplinary collaboration. This finding suggests the need for self-reflection and specific training for the language specialist involved in this specific DP-EMI. Language specialists involved in teacher training for EMI could also probably benefit from similar orientation, which might include instruction in the significance of participation in the establishment of interdisciplinary collaboration and the identification of participation frameworks which facilitate reciprocity and mutual development. Analysis from Chapter 6 also reveals significant reinterpretation of the originally planned process and the roles of the participants. This type of reinterpretation in implementation may also occur in other DP-EMI processes. These findings suggest the need to examine carefully the implementation of planned DP-EMI processes to gain a complete picture of what is really happening in EMI teacher development.

Analysis in Chapter 7 identified three interactional contexts which created opportunities for the interactional accomplishment of EMI expertise. These included three action sequences: attribution of EMI-related responsibility; making relevant content specialists access to EMI-related knowledge; alignment with content specialist claims to entitlement to assess or propose changes in EMI-related materials. Similar actions may also facilitate the interactional accomplishment of EMI expertise in other contexts, an area for further exploration in this and other interactional data sets collected in the context of collaborative EMI teacher development. Analysis in this chapter also suggested the significant role played by a material artefact, in this case an EMI lesson plan, in the interactional accomplishment of EMI expertise. The participation of material artefacts is also explored in Chapters 8 and 9.

In Chapter 8 analysis of data collected during shared viewing of video recordings of EMI classroom interaction was framed by a heuristic for the interactional accomplishment of EMI expertise which integrated notions drawn from enactment of expertise, epistemics-in-interaction, and professional vision. Analysis of the interactional data framed by this heuristic reflected how the actions of coding and highlighting and assessment participated in the interactional accomplishment of EMI expertise. These findings suggest the usefulness of the heuristic, but this needs to be explored in other interactional sequences in this and other data sets, including a search for negative or deviant cases.

The findings of Chapter 9 also provide evidence for the utility of the activity of shared observation and discussion of video-recordings of EMI classroom interaction in the interactional accomplishment of EMI expertise and may prove useful in the planning and organization of future EMI teacher development initiatives.

Finally, Chapter 10 addresses two aspects regarding the overall DP-EMI process, the transformative potential of the DP-EMI process and the roles of material artefacts in this process. Regarding the transformative potential of the DP-EMI process, it would appear that both worldviews of EMI and participation frameworks may have undergone some transformation. The findings are suggestive and indicate the need to explore these aspects in other interactional sequences to build collections of evidence to rigorously address the issue of the transformative potential of this DP-EMI process.

Regarding the participation of material artefacts in the DP-EMI process, analysis in Chapter 9 suggests that material artefacts or boundary objects not only mediated interdisciplinary dialogue, but also participated in the interactional accomplishment of a variety of actions, ranging from the negotiation of relative authority within the training process, the co-construction of affiliation, and the interactional accomplishment of EMI expertise. The development and planning of future EMITD processes and the preparation of EMITD teacher trainers should take into account the significant role of material artefacts such as EMI lesson plans or video recordings of classroom interaction in the interactional accomplishment of EMI expertise.

Annex 1:

Consent form

El alumno/profesor ……………………, de la Facultad de …………………… de la Universitat Internacional de Catalunya, por medio de la presente, AUTORIZA a ……………………, profesora del Servei d'Idiomes de la Universitat Internacional de Catalunya (UIC) a grabar interacciones en las cuales participe, con el fin de usar y ceder dichas grabaciones a los diferentes grupos de investigación a los que pueda estar adscrita, ahora o en un futuro, y exclusivamente para fines académicos. En este sentido, las grabaciones no serán objeto de divulgación fuera del ámbito académico, entendiendo como tal y entre otros, los congresos, charlas i/o conferencias en las que pudiera participar la profesora, su grupo de investigación y la propia UIC, dando a conocer su metodología de trabajo.

En cualquier momento el alumno podrá ejercer los derechos de acceso, rectificación, cancelación y oposición sobre sus datos personales a la dirección electrónica datos@uic.es o la dirección postal Universitat Internacional de Catalunya, calle Immaculada 22, 08017 Barcelona.

…………………………………
Firma del alumno/profesor autorizando

Annex 2:

Transcription conventions

The transcription practices follow the Jeffersonian (2004) system of transcription

LS/CS/STS	Speaker
aixó	Talk in Catalan in italics
(.)	A micropause - a pause of no significant length.
(0.7)	A timed pause - long enough to indicate a time.
[ ]	Square brackets show where speech overlaps.
> <	Pace of speech has quickened.
< >	Pace of the speech has slowed down.
( )	Unclear section.
(( ))	Analysts comment.
Underlining	Denotes a raise in volume or emphasis.
text-	Cut-off of talk
↑	Rise in intonation
↓	Drop in intonation
→	Entered by the analyst to show a sentence of Particular interest.
◦text◦	Decreased volume
(h)	Laughter in the conversation/speech.
.hhh	Inbreath
=	Latching at the end of one sentence and the start of the next. Indicates no pause between them.
: : :	Colons - indicate a stretched sound.
XXX	Unintelligible

Annex 3

Official document describing the development groups

Development Groups for Teaching in English

1. Description

The goal of the Development Groups is and language to offer support to PDI involved in teaching their subjects in English and to promote collaboration between content specialists, in order to boost the overall quality of English-medium teaching at the UIC. The groups are made up of one or two experts in teaching academic contents who are involved in instruction in English, and one expert in teaching English as a foreign language. Ideally, the group members will all be involved in teaching in the same or complementary degree programs.

2. Roles

The groups are based on a rationale of reciprocity and mutual development. The role of the expert in teaching English as a foreign language is:

- To help identify aspects of their peers' English that need development and to offer linguistic support and suggestions for self-improvement;
- To help identify aspects of their peers' performance as a teacher in English in need of development and to propose methodological strategies and insights from their own experience of managing second language classrooms;
- To draw on their peers' expertise in the teaching of academic content for the improvement of their own classroom practice and the development of relevant and up-to-date teaching/learning materials.

The role of the expert in teaching academic contents is:

- To share their expertise in the academic content for the improvement of their peers' classroom practice and their development of relevant and up-to-date teaching/learning materials and methods;
- To help identify aspects of their own English that need development and to be open to receive linguistic support and suggestions for self-improvement;
- To help identify aspects of their own performance as a teacher in English in need of development and to be willing to try out new methodological strategies for managing second language classrooms.

3. Obligations

The duration of the Development Groups is limited to **one semester**.

Groups should meet **face-to-face for up to 10 hours** within the semester, at a time and place agreed on by the members. It is the responsibility of all members to arrange meetings, to attend them punctually, and to keep track of the time spent.

Additionally, the expert in teaching academic content may request that the expert in teaching English as a foreign language provide **revision of written teaching materials in English for up to 10 hours** within the semester.

Please do not ask for translation or revision of other sorts of texts in English (e.g. research articles, emails, CV). However, the Servei d'Idiomes does offer some of these services as part of the Pla de Foment de la Docència i la Recerca en Anglès. Speak to us to find out more (idiomes@uic.es).

4. Suggested approach

Collaborative action research

A good idea in approaching your participation in the Development Groups is to consider it an opportunity for collaborative action research aimed at improving the quality of teaching in English at the university. Action research has long been common in the field of Education as a vehicle to both theoretical development and teaching innovation, and can be defined as follows:

> *"Action research in education is research undertaken by practitioners in order that they may improve their practices. The people who actually teach children or supervise teachers or administer school systems attempt to solve their practical problems by using the methods of science. They accumulate evidence to define their problems more sharply. They draw upon all of the experience available to them as a source for action hypotheses that give promise of enabling them to ameliorate or eliminate the practical difficulties of their day to day work. They test out these promising procedures on the job, and again accumulate the best evidence they can of their effectiveness. They try to generalize as carefully as possible in order that their research will contribute to the solution of future problems or the elimination of future difficulties that they face in their teaching or supervision or administration" (Corey, 1954, p. 375)[4].*

In its simplest form, action research is something teachers do every time they plan a class, deliver it, observe their students' performance and reflect on what needs to be done next time. In a more complex form, it is a conscious plan for self-development and a grass-root, participatory form of driving educational theory and advancement.

Classroom observation

The following are just some aspects that you may focus on in your classroom or in your peers' to help you get started:

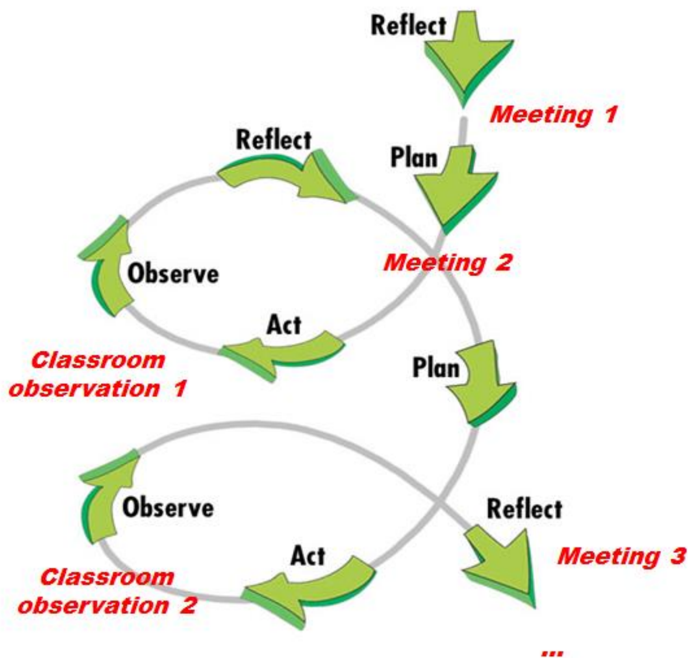
- What strategies does the teacher use to get and/or hold students' attention and encourage learning? Do the students participate actively in their learning? What strategies could be tried?
  e.g.:
  - Linguistic (rephrasing, repeating, dialogue, writing, etc.)
  - Paralinguistic (intonation, speed, pausing, pitch, volume, whispering, etc.)
  - Multimodal (gesture, movement, signaling, diagrams, objects, etc.)
  - Innovative teaching/learning methods

[4] Corey, S. M. (1954). *The Journal of Educational Research, 47* (5), 375-380.

- What strategies does the teacher use to make himself/herself understood? How does the teacher know that students follow/understand the class? What strategies does the teacher use to check students' comprehension? What others could be tried?
- Is the content being dealt with at the desirable level of complexity? Or is it being simplified by using English? If so, what strategies could help?
- Does the teacher switch into Catalan or Spanish? Why? When? What for? What other strategies could be tried?
- Do the students use English in the classroom? Why? When? What for? What strategies could be tried?

Organisation

As a group you should decide how you wish to go about your participation and how you organise your time. A good idea would be to observe each-other in action, although this will depend on you. The following is a suggested plan, based on the stages of action research[5]:



5. More help?

We are pleased to announce that starting this year, xxxxx will be offering free support for staff and students learning English, and especially guidance for self-study. Please drop in to see xxxxx in the Servei d'Idiomes at the following times:

Barcelona campus: Mondays and Wednesdays from 16.00 – 17.00

Sant Cugat campus: Tuesdays and Thursdays from 16.00 – 17.00

.

[5]Adapted from: Centre for Advanced Learning and Teaching (2000). *Action Research*. Retrieved from http://celt.ust.hk/teaching-resources/action-research

Annex 4

Lesson plan document

POSSIBLE ORGANIZATION OF A CLASS ABOUT POSTER PRESENTATIONS

OBJECTIVE OF THE SESSION: Preparation of a poster presentation (estimated class size:12-20 students of Medicine and Dentistry)

Possible lesson plan:

CONTENT AND ORGANIZATION OF A SCIENTIFIC POSTER:
(30 minutes)

STS Should ID characteristics of a good scientific poster
YOU WILL NEED A COPY OF A GOOD AND BAD POSTER (IF YOU HAVE 5 to 6 DIFFERENT POSTERS, EVEN BETTER!)

(You might want to check online or tell STS to look online for criteria)
Raquel's idea: Present STS w good posters and bad posters. Ask them to say which is better and why. You could have STS do this in groups of 3 or 4 and pass the posters around and critique them.

AFTER: Generate a list of criteria for a good poster.

PRESENTING A SCIENTIFIC POSTER:

Maybe Raquel could present her poster????
Joan will look for useful language.
STS will practice using the language today.

PREPARING A PART OF A POSTER
(30 minutes)

YOU WILL NEED TO SELECT A SHORT SCIENTIFIC ARTICLE AND MAKE 10 PHOTOCOPIES OF IT. IF YOU WANT YOU CAN CUT THE SECTIONS APART.

Divide the class into 4 groups of 2-4 students. If you have too many STS, you can divide the class into 8 groups of 2-4 students and do 2 different articles.

Each group will be assigned a part of a preselected scientific article: Introduction/Methods/Results/Discussion. They have to read their section, create a poster and present it orally to the class TODAY.
IN ORDER TO PREPARE THE POSTER, THEY NEED TO HAVE ACCESS TO A COMPUTER. YOU WILL WANT TO TELL THEM TO BRING COMPUTERS TO CLASS.

ORAL PRESENTATION CRITERA
(10-15 minutes)

Discuss with STS what makes a good poster presentation.

Eye contact/Facing the audience
Not just reading. Expanding on the content.
Pacing (not too fast not too slow)
Good pronunciation…
Signposting
Etc

PRESENTATION PRACTICE
(30 minutes)

Student groups present their poster of their part of the article to the class.
The class should critique the poster AND their presentation.

ASSIGNING THE ARTICLES:
(15 minutes)

STS form groups of 4-5.
Assign an article to each group.
Tell STS when they will have to present their poster.
IF you can, show them how they will be marked. (What criteria will be used to mark them)

References

Aguilar, M. & Muñoz, C. (2014). The effect of proficiency on CLIL benefits in Engineering students in Spain. *International Journal of Applied Linguistics* 24(1) 1–18.

Airey, J. (2012). I don't teach language. The linguistic attitudes of physics lecturers in Sweden. *AILA Review*, *25*(25), 64-79.

Akkerman, S. F., & Bakker, A. (2011). Boundary crossing and boundary objects. *Review of educational research*, *81*(2), 132-169.

Altbach, P. G. (2004). Globalisation and the university: Myths and realities in an unequal world. *Tertiary Education & Management*, *10*(1), 3-25.

Altbach, P. G., & Knight, J. (2007). The internationalization of higher education: Motivations and realities. *Journal of studies in international education*, *11*(3-4), 290-305.

Ammon, U., & McConnell, G. D. (2002). *English as an academic language in Europe: A survey of its use in teaching*. Bern: Peter Lang.

Antaki, C., & Widdicombe, S. (Eds). (1998). *Identities in talk*. London: Sage.

Arminen, I. (2005). *Institutional interaction: Studies of talk at work*. Burlington VT: Ashgate.

Arnó-Macià, E., & Mancho-Barés, G. (2015). The role of content and language in content and language integrated learning (CLIL) at university: Challenges and implications for ESP. *English for Specific Purposes*, *37*, 63-73.

Auer, P. (1984). *Bilingual conversation*. Amsterdam: John Benjamins.

Auer, P. (1998). Introduction: Bilingual conversation revisited. In P. Auer (Ed.), *Code-switching in conversation: Language, interaction and identity* (pp. 1–24). London: Routledge.

Back, M. (2016). Epistemics and Expertise in Peer Tutoring Interactions: Co-Constructing Knowledge of Spanish. *The Modern Language Journal*, *100*(2), 508-521.DOI: 10.1111/modl.12334

Bakhtin, M. (1934). Discourse in the novel. In J. Rivkin & M. Ryan (Eds.), *Literary theory: Anthology*, v 2, (pp. 674–685). Oxford: J Wiley and Sons.

Ball, P., & Lindsay, D. (2013). Language demands and support for English-medium instruction in tertiary education. Learning from a specific context. In A. Doiz, D. Lasagabaster & J.M. Serra (Eds.) *English-medium instruction at universities: Global challenges* (pp. 44-64). Bristol: Multilingual Matters.

Basturkmen, H. (2010). *Developing courses in English for specific purposes*. Basingstoke, UK: Palgrave.

Bhatia, V. K. (2014). *Analysing genre: Language use in professional settings*. New York: Routledge.

Blommaert, J. (2010). *The sociolinguistics of globalization*. Cambridge: Cambridge University Press.

Bolden, G. B. (2008). So what's up? Using the discourse marker so to launch conversational business. *Research on Language and Social Interaction, 41* (3). 302-337. https://doi.org/10.1080/08351810802237909

Bolden, G. B. (2009). Implementing incipient actions: The discourse marker 'so'in English conversation. *Journal of pragmatics, 41* (5), 974-998. https://doi.org/10.1016/j.pragma.2008.10.004

Brinton, D., Snow, M. A., & Wesche, M. B. (1989). *Content-based second language instruction*. New York: Newbury house.

Brown, H. (2017). Cooperation and collaboration in undergraduate EMI: Adapting EAP to the emergence of blended academic norms and practices in a Japanese university. In J. Valcke & R. Wilkinson (Eds.), *Integrating content and language in higher education: Perspectives on professional practice* (pp.151-166). Frankfurt am Main: Peter Lang.

Cammarata, L. (2010). Foreign language teachers' struggle to learn content-based instruction. *L2 Journal*, *2*(1), 89-118. https://escholarship.org/uc/item/8g91w2r7

Cammarata, L., & Tedick, D. J. (2012). Balancing content and language in instruction: The experience of immersion teachers. *The Modern Language Journal*, *96*(2), 251-269.

Cenoz, J. (2015). Content-based instruction and content and language integrated learning: The same or different? *Language, Culture and Curriculum*, *28*(1), 8-24.

Cenoz, J., Genesee, F., & Gorter, D. (2014). Critical analysis of CLIL: Taking stock and looking forward. *Applied linguistics*, *35*(3), 243-262.

Clayman, S. E. (2002). Sequence and solidarity. In S. Thye & E. Lawler (Eds.), *Advances in group processes* (pp. 229-253). Bingley UK: Emerald Group Publishing Limited.

Clayman, S. E. (2013). Turn-Constructional Units and the Transition-Relevance Place. In J. Sidnell & T. Stivers (Eds.), *The handbook of conversation analysis*, 151-166. Malden, MA: Blackwell.

Coleman, J. A. (2006). English-medium teaching in European higher education. *Language teaching*, *39*(1), 1-14.

Coleman, J.A. (2013). Foreword. In: A. Doiz, D. Lasagabaster, & J.M. Serra (Eds.), *English-medium instruction at universities: Global challenges* (pp.xiii-xv). Bristol: Multilingual Matters

Cots, J.M. (2013). Introducing English-medium instruction at the University of Lleida, Spain: Intervention, beliefs, and practices, In: A. Doiz., D. Lasagabaster, & J.M. Serra (Eds.), *English-medium instruction at universities: Global challenges* (pp.106-128). Bristol: Multilingual Matters.

Cots, J. M., Lasagabaster, D., & Garrett, P. (2012). Multilingual policies and practices of universities in three bilingual regions in Europe. *International Journal of Sociology of Language, 2012*(216), 7 – 32.

Cots, J. M., & Clemente, M. (2011). Tandem teaching in CLIL for tertiary education. In

C. Escobar Urmienta & L. Nussbaum (Eds.) *Aprendre en una altra llengua*, (pp.165-184). Bellaterra: Universitat Autònoma de Barcelona.

Coyle, D., Hood, P., & Marsh, D. (2010). *Content and language integrated learning*. Cambridge: Cambridge University Press.

Creese, A. (2002). The discursive construction of power in teacher partnerships: Language and subject specialists in mainstream schools. *Tesol Quarterly, 36* (4), 597-616. https://doi.org/10.2307/3588242.

Creese, A., & Blackledge, A. (2010). Translanguaging in the bilingual classroom: A pedagogy for learning and teaching. *The Modern Language Journal*, *94*(1), 103-115.

Creese, A., & Martin, P. (2003). Multilingual classroom ecologies: Inter-relationships, interactions and ideologies. *International Journal of Bilingual Education and Bilingualism*, *6*(3-4), 161-167.

Cummins, J. (2007). Rethinking monolingual instructional strategies in multilingual classrooms. *Canadian Journal of Applied Linguistics/Revue canadienne de linguistique appliquée*, *10*(2), 221-240.

Dafouz, E. (2018). English-medium instruction and teacher education programmes in higher education: ideological forces and imagined identities at work. *International Journal of Bilingual Education and Bilingualism*, *21*(5), 540-552.

Dafouz, E., Camacho, M., & Urquia, E. (2014). 'Surely they can't do as well': a comparison of business students' academic performance in English-medium and Spanish-as-first-language-medium programmes. *Language and Education*, *28*(3), 223-236.

Dafouz, E., & Smit, U. (2014). Towards a dynamic conceptual framework for English-medium education in multilingual university settings. *Applied Linguistics*, *37*(3), 397-415.

Dalton-Puffer, C. (2011). Content-and-language integrated learning: From practice to principles. *Annual Review of applied linguistics*, *31*, 182-204.

Dalton-Puffer, C., Llinares, A., Lorenzo, F., & Nikula, T. (2014). "You can stand under my umbrella": Immersion, CLIL and bilingual education. A response to Cenoz, Genesee & Gorter (2013). *Applied Linguistics*, *35*(2), 213-218.

Dalton-Puffer, C., Nikula, T., & Smit, U. (2010). Charting policies, premises and research on content and language integrated learning. In C. Dalton-Puffer, T. Nikula, & U. Smit (Eds.), *Language use and language learning in CLIL classrooms* (pp.1-19), Amsterdam: John Benjamins.

Deal, M. (2016). *Student interaction during group work in a multilingual university setting.* (Doctoral dissertation). Bellaterrra: Universitat Autonoma de Barcelona.

Dearden, J. (2014). *English as a medium of instruction-a growing global phenomenon*. British Council. Accessed February 18, 2019. https://ora.ox.ac.uk/objects/uuid:4f72cdf8-b2eb-4d41-a785-4a283bf6caaa

Doiz, A., Lasagabaster, D., & Sierra, J. M. (2011). Internationalisation, multilingualism and English-medium instruction. *World Englishes*, *30*(3), 345-359.

Doiz, A., Lasagabaster, D., & Sierra, J. M. (Eds.). (2013). *English-medium instruction at universities: Global challenges*. Bristol: Multilingual matters.

Dooly, M. (2009). *Doing diversity: Teachers' construction of their classroom reality*. Bern: Peter Lang.

Drew, P. & Heritage, J. (Eds.). (1992). *Talk at Work: Interaction in institutional settings*. Cambridge & New York: Cambridge University Press.

Ekström, A. (2013). Epistemic positioning and frameworks for participation: Learning to assess objects of craft in teacher education. *Learning, Culture and Social Interaction*, *2*(4), 277-292. https://doi.org/10.1016/j.lcsi.2013.10.002.

Engeström, Y. (2001). Expansive learning at work: Toward an activity theoretical reconceptualization. *Journal of education and work*, *14*(1), 133-156.

Escobar Urmeneta, C. (2019). An Introduction to Content and Language Integrated Learning (CLIL) for Teachers and Teacher Educators. *CLIL Journal of Innovation and Research in Plurilingual and Pluricultural Education, 2*(1), 7-19. DOI: https://doi.org/10.5565/rev/clil.21

Eurydice Network. (2006). *Content and language integrated learning (CLIL) at school in Europe.* Brussels, Belgium: Retrieved from https://publications.europa.eu/en/publication-detail/-/publication/756ebdaa-f694-44e4-8409-21eef02c9b9b

Evans, B., & Fitzgerald, R. (2016). 'It's training man!' Membership categorization and the institutional moral order of basketball training. *Australian Journal of Linguistics*, 36(2), 205–223.

Fortanet Gómez, I. (2010). Training CLIL teachers for the university. In David Langabaster (Ed.), *CLIL in Spain: Implementations, Results and Teacher Training* (257-276). Newcastle upon Tyne, UK: Cambridge Scholars Publishing.

Fortanet Gómez, I. (2012). Academics' beliefs about language use and proficiency in Spanish multilingual higher education. *Aila review*, *25*(1), 48-63.

Fortanet Gómez, I. (2013). *CLIL in higher education: Towards a multilingual language policy* (Vol. 92). Bristol: Multilingual matters.

Gafaranga, J., & Torras i Calvo, M. C. (2001). Language versus medium in the study of bilingual conversation. *International Journal of Bilingualism*, *5*(2), 195–219.https://doi.org/10.1177/13670069010050020401

Gamoran Sherin, M., & Van Es, E. A. (2009). Effects of video club participation on teachers' professional vision. *Journal of Teacher Education*, *60*(1), 20-37. https://doi.org/10.1177%2F0022487108328155

García, O., & Wei, L. (2014). *Translanguaging: Language, bilingualism and education*. London: Palgrave Macmillan.

Gardner, R. (2013). Conversation analysis in the classroom. In J. Sidnell & T. Stivers (Eds.), *The handbook of conversation analysis* (pp. 593-611). Malden MA: Blackwell.

Garfinkel, H. (1967). *Studies in ethnomethodology*. Englewood Cliffs, NJ:Prentice-Hall.

Gazzola, M. (2012). The linguistic implications of academic performance indicators: general trends and case study. *International Journal of the Sociology of Language*, (2012) 216, 131-156.

Genesee, F., & Lindholm-Leary, K. (2013). Two case studies of content-based language education. *Journal of Immersion and Content-based language Education*, *1*(1), 3-33.

Goffman, E. (1964). The Neglected Situation. *American Anthropologist, 66 (*6)133–36.

Goffman, E. (1981). *Forms of talk*. Philadelphia: University of Pennsylvania Press.

Goodwin, C. (1979). The Interactive Construction of a Sentence in Natural Conversation. In G. Psathas (Ed.), *Everyday Language: Studies in Ethnomethodology* (pp 97-121). New York: Irvington Publishers.

Goodwin, C. (1984). Notes on story structure and the organization of participation. In J.M. Atkinson & J. Heritage (Eds.), *Structures of social action: Studies in conversation analysis* (pp 225-246). Cambridge: Cambridge University Press.

Goodwin, C. (1994). Professional vision. *American anthropologist*, *96*(3), 606-633.

Goodwin, C. (2000). Action and embodiment within situated human interaction *Journal of pragmatics*, *32*(10), 1489-1522.

Goodwin, C. & Goodwin, M. (2004). Participation. In A. Duranti (Ed.), *A Companion to Linguistic Anthropology* (pp 222-244) Malden:Blackwell.

Gumperz, J. J. (1982). *Discourse strategies*. Cambridge: Cambridge University Press.

Gustafsson M., Eriksson, A., Räisänen , C.,Stenberg , A., Jacobs, C., Wright J., Wyrley-Birch, B. & Winberg C. (2011). Collaborating for content and language integrated learning: The situated character of faculty collaboration and student learning, *Across the Disciplines* 8 (3), 2011, Retrieved from http://wac.colostate.edu/atd/clil/gustafssonetal.cfm

Halliday, M. A. K. (1978). *Language as social semiotic: The social interpretation of language and meaning*. London: Edward Arnold.

Hazel, S., Mortensen, K., & Rasmussen, G. (2014). Introduction: A body of resources-CA studies of social conduct. *Journal of Pragmatics*, *65*, 1-9.

Heath, C. (1984). Participation in the medical consultation: the co-ordination of verbal and nonverbal behaviour between the doctor and patient. *Sociology of health & illness, 6*(3), 311-388.

Heath, C. (1986). *Body movement and speech in medical interaction*. Cambridge: Cambridge University Press.

Heath, C. & Luff, P. (2013). Embodied action and organizational activity. In J. Sidnell & T. Stivers (Eds.) *The handbook of conversation analysis* (pp. 283-307). Malden MA: Blackwell.

Hellekjær, G. O. (2010). Lecture comprehension in English-medium higher education. *HERMES-Journal of Language and Communication in Business*, *23*(45), 11-34.

Heller, M. (1999). *Linguistic minorities and modernity: A sociolinguistic ethnography*. New York: Longman.

Helm, F., & Guarda, M. (2015). "Improvisation is not allowed in a second language": A survey of Italian lecturers' concerns about teaching their subjects through English. *Language Learning in Higher Education*, *5*(2), 353-373.

Heritage, J. (1984a). A change-of-state token and aspects of its sequential placement. In J.M. Atkinson & J. Heritage (Eds.) *Structures of social action: Studies in conversation analysis* (pp 299-345). Cambridge: Cambridge University Press.

Heritage, J.(1984b). *Garfinkel and ethnomethodology*. Cambridge, England: Polity Press.

Heritage, J. (2005). Conversation analysis and institutional talk. In K.L. Fitch & R.E. Sanders (Eds.), *Handbook of language and social interaction* (pp 103-147). Mahwah, NJ: Lawrence Erlbaum.

Heritage, J. (2013). Epistemics in conversation. In J. Sidnell & T. Stivers (Eds.) *The handbook of conversation analysis* (pp. 370-394). Malden MA: Blackwell.

Heritage, J., & Raymond, G. (2012). Navigating epistemic landscapes: Acquiescence, agency and resistance in responses to polar questions. In J. P. de Ruiter (Ed.) *Questions: Formal, functional and interactional perspectives* (pp 179-192). Cambridge: Cambridge University Press.

Hester, S., & Eglin, P. (1997). *Culture in action: Studies in membership categorization analysis*. Lanham MA: University Press of America.

Hodge, R., & Kress, G.R. (1988). *Social semiotics*. Ithaca, NY: Cornell University Press

Hornberger, N., & Vaish, V. (2009). Multilingual language policy and school linguistic practice: globalization and English-language teaching in India, Singapore and South Africa. *Compare*, *39*(3), 305-320.

House, J. (2003). English as a lingua franca: A threat to multilingualism? *Journal of sociolinguistics*, *7*(4), 556-578.

Hyland, K. (2002). Authority and invisibility: Authorial identity in academic writing. *Journal of pragmatics*, *34*(8), 1091-1112.

Hyland, K. (2005). Stance and engagement: A model of interaction in academic discourse. *Discourse studies*, *7*(2), 173-192.

Hyland, K. (2006). *English for academic purposes: An advanced resource book*. London: Routledge.

Jacobs, C. (2007). Towards a critical understanding of the teaching of discipline-specific academic literacies: Making the tacit explicit. *Journal of education*, *41*(1), 59-81.

Kamio, A. (1997). *Territory of information*. Amsterdam: John Benjamins Publishing.

Kang, S., & Park, H. (2005). English as the medium of instruction in Korean engineering education. *응용언어학*, *21*(1), 155-174.

Keevallik, L. (2011) The terms of not knowing. In T. Stivers, L. Mondada & J. Steensig (Eds.), *The Morality of Knowledge in Conversation* (pp. 184-206). Cambridge:

Cambridge University Press.

Kitzinger, C. (2013) Repair. In J. Sidnell & T. Stivers (Eds) *The handbook of conversation analysis* (pp. 229-256). Malden MA: Blackwell.

Koshik, I. (2002). Designedly incomplete utterances: A pedagogical practice for eliciting knowledge displays in error correction sequences. *Research on language and social interaction, 35*(3), 277-309.

Kurtán, Z. (2003) Teacher training for English-medium instruction. In C. Van Leeuwen & R. Wilkinson (Eds.) *Multilingual approaches in university education: Challenges and practices* (pp.145-162). Nijmegen: Valkhof Pers.

Labov, W., & Fanshel, D. (1977). *Therapeutic discourse: Psychotherapy as conversation*. New York: Academic Press.

Lantolf, J., Thorne, S. L., & Poehner, M. (2006). Sociocultural Theory and Second Language Development. In B. Van Patten & J. Williams (Eds.), *Theories in Second Language Acquisition* (pp. 197-220). New York: Routledge.

Lasagabaster, D., & Sierra, J. M. (2009). Immersion and CLIL in English: more differences than similarities. *ELT journal*, *64*(4), 367-375.

Lauridsen, K. M. (2017). Professional development of international classroom lecturers. In J. Valcke & R. Wilkinson (Eds.), *Integrating Content and Language in Higher Education:Perspectives on profesional practice* (pp 25-38). Frankfurt am Main:Peter Lang.

Lave, J. & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.

Levinson, S. C. (2013). Action formation and ascription. In J. Sidnell & T. Stivers (Eds.), *The handbook of conversation analysis* (pp. 103-130). Malden MA: Blackwell.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. London: Sage.

Lindström, A., & Sorjonen, M. L. (2013). Affiliation in conversation. In J. Sidnell & T. Stivers (Eds.), *The handbook of conversation analysis* (pp. 250–369). Malden, MA: Blackwell.

Llompart, J., Masats, D., Moore, E., & Nussbaum, L. (2019, forthcoming). “Mézclalo un poquito”: Plurilingual practices in multilingual educational milieus. *Journal of Bilingual Education and Bilingualism.*

Llurda, E., Cots, J. M., & Armengol, L. (2013). Expanding language borders in a bilingual institution aiming at trilingualism. In H. Haberland, D. Lønsmann, & B. Preisler (Eds.), *Language alternation, language choice and language encounter in international tertiary education* (pp. 203-222). Dordrecht: Springer.

Lyster, R. (2007). *Learning and teaching languages through content: A counterbalanced approach* (Vol. 18). Amsterdam: John Benjamins Publishing.

Lyster, R. (2017). Preface. In J.Valcke, & R. Wilkinson, (Eds.), *Integrating Content and Language in Higher Education: Perspectives on Professional Practice*. (pp. 7-14). New York: Peter Lang.

Macaro, E., Curle, S., Pun, J., An, J., & Dearden, J. (2018). A systematic review of English medium instruction in higher education. *Language Teaching*, *51*(1), 36-76.

Maiworm, F., & Wächter, B. (2002). *English-language-taught: Degree programmes in European higher education*. Bonn: Lemmens.

Mancho Bares, G., & Arnó Macià, E. (2017). EMI lecturer training programmes and academic literacies: A critical insight from ESP. *ESP Today, 5(2, 266-290*.

Maynard, D. W. (2013). Everyone and no one to turn to: Intellectual roots and contexts for conversation analysis. In T. Stivers & J. Sidnell (Eds.), *The handbook of conversation analysis* (pp. 9-31). Malden, MA: Blackwell.

Mehan, H. (1979). 'What time is it, Denise?": Asking known information questions in classroom discourse. *Theory into practice*, *18*(4), 285-294.

Met, M. (1998). Curriculum decision-making in content-based language teaching. In J. Cenoz & F. Genesee (Eds.), *Beyond Bilingualism: Multilingualism and Multilingual Education* (pp 35-63). Clevedon, UK: Multilingual Matters,

Mondada, L. (2013). The conversation analytic approach to data collection. In J. Sidnell & T. Stivers (Eds.) *The handbook of conversation analysis* (pp. 32-56). Malden MA: Blackwell.

Mondada, L. (2016). Challenges of multimodality: Language and the body in social interaction. *Journal of Sociolinguistics*, *20*(3), 336-366.

Mondada, L. (2018). Multiple temporalities of language and body in interaction: Challenges for transcribing multimodality. *Research on Language and Social Interaction*, *51*(1), 85-106.

Moore, E. (2011). *Plurilingual interaction at a Catalan university doing internationalisation: Context and learning* (Doctoral dissertation). Universitat Autònoma de Barcelona.

Moore, E. (2014). Constructing content and language knowledge in plurilingual studentteamwork: Situated and longitudinal perspectives. *International Journal of Bilingual Education and Bilingualism*, *17*(5), 586–609.

Moore, E. (2016). Conceptualising multilingual higher education in policies, pedagogical designs and classroom practices. *Language, Culture and Curriculum*, *29*(1), 22-39.

Moore, E. (2017). Doing understanding in transient, multilingual communities in higher education. *Journal of Linguistic Anthropology*, *27*(3), 289–307.

Moore, E., Borràs, E., & Nussbaum, L. (2013): Plurilingual resources in lingua franca talk: An interactionist perspective. A Haberland, H., Lønsmann, D., Preisler, B. (Eds.), *Language Alternation, Language Choice and Language Encounter in International Tertiary Education* (pp. 53-84). Dordrecht: Springer.

Moore, E., & Patiño-Santos, A. (2014). Plurilingual resources for 'welcoming'at a university service for international students. *Journal of Multilingual and Multicultural Development*, *35*(4), 406-424.

Moore, E., & Ploettner, J., & Deal, M. (2015). Exploring professional collaboration at the boundary between content and language teaching from a CHAT approach. *Ibérica, Revista de la Asociación Europea de Lenguas para Fines Específicos,*(30), 85-103.

Mortensen, J. (2014). Language policy from below: Language choice in student project groups in a multilingual university setting. *Journal of Multilingual and Multicultural Development*, *35*(4), 425-442.

Nussbaum, L., Moore, E., & Borràs, E. (2013). Accomplishing multilingualism through plurilingual activities. In A.C. Berthoud, F. Grin & G. Lüdi (Eds.), *Exploring the Dynamics of Multilingualism. The DYLAN Project* (pp 229-252). Amsterdam: John Benjamins.

O'Dowd, R. (2018). The training and accreditation of teachers for English medium instruction: an overview of practice in European universities. *International Journal of Bilingual Education and Bilingualism, 21*(5), 553-563.

Paretti, M. (2011). Interdisciplinarity as a lens for theorizing language/content partnerships. *Across the disciplines,* 8(3), 299. https://wac.colostate.edu/atd/special/clil/

Pennycook, A. (2012). *Language and mobility: Unexpected places*. Bristol: Multilingual matters.

Phillipson, R., & Skutnabb-Kangas, T. O. V. E. (1996). English only worldwide or language ecology? *TESOL quarterly*, *30*(3), 429-452.

Ploettner, J. (2019). EMI teacher and student identities and linguistic practices:Tracing classroom tensions in a teacher development process. *Journal of Immersion and Content-Based Language Education 7:*1 (2019), pp. 116–142.

Pomerantz, A. (1980). Telling my side:"Limited access' as a "fishing" device. *Sociological inquiry*, *50*(3-4), 186-198.

Pomerantz, A. (1984). Agreeing and disagreeing with assessments: Some features of preferred/dispreferred turn shapes. In J.M. Atkinson & J. Heritage (Eds.), *Structures of Social Interaction* (pp. 57-101). Cambridge: Cambridge University Press.

Pomerantz, A. & Heritage, J. (2013). Preference. In J. Sidnell & T. Stivers (Eds.) *The handbook of conversation analysis* (pp. 210-228). Malden MA: Blackwell.

Potter, J.& Edwards, D. (2013). Conversation analysis and psychology. In J. Sidnell & T. Stivers (Eds.), *The handbook of conversation analysis* (pp. 701-725). Malden MA: Blackwell.

Psathas, G. (1995). *Conversation analysis: The study of talk-in-interaction*. Thousand Oaks, CA: Sage Publications.

Rosenfield, P. L. (1992). The potential of transdisciplinary research for sustaining and extending linkages between the health and social sciences. *Social Science & Medicine*, *35*(11), 1343-1357.

Ruiz Garrido, M. F. & Ruiz-Madrid, M. N. (2016). La formación del profesorado para la docencia en inglés: Una propuesta para la reflexión. In A. Pons (Ed.) *Actas del congreso virtual: Avances en tecnologías, innovación y desafío de la educación superior* (pp. 139-149). Castelló de la Plana: Publicacions de la Universitat Jaume I.

Sacks, H. (1972). An initial investigation of the usability of conversational materials for doing sociology. In D.N. Sudnow (Ed.), *Studies in social interaction* (pp 34-71). New York: Free Press.

Sacks, H. (1992). *Lectures on conversation*. Oxford: Blackwell.

Sacks, H., Schegloff, E. A., & Jefferson, G. (1974). A simplest systematics for the organization of turn-taking for conversation. *Language*, *50*(4), 696-735.

Schegloff, E. A. (1992). Repair after next turn: The last structurally provided defense of intersubjectivity in conversation. *American journal of sociology*, *97*(5), 1295-1345.

Schegloff, E. A. (2006). Interaction: The infrastructure for social institutions, the natural ecological niche for language, and the arena in which culture is enacted. In N.J. Enfield & S.C. Levinson (Eds.), *Roots of human sociality: Culture, cognition and interaction* (pp 70-96). New York: Berg.

Schegloff, E. A. (2007a). *Sequence organization in interaction: A primer in conversation analysis I* (Vol. 1). Cambridge: Cambridge University Press.

Schegloff, E. A. (2007b). A tutorial on membership categorization. *Journal of Pragmatics*, 39(3), 462–482.

Schegloff, E. A., Jefferson, G., & Sacks, H. (1977). The preference for self-correction in the organization of repair in conversation. *Language*, *53*(2), 361-382.

Schmidt-Unterberger, B. (2018). The English-medium paradigm: a conceptualisation of English-medium teaching in higher education. *International Journal of Bilingual Education and Bilingualism*, *21*(5), 527-539.

Schofer, E., & Meyer, J. W. (2005). The worldwide expansion of higher education in the twentieth century. *American sociological review*, *70*(6), 898-920.

Seedhouse, P. (2004). *The interactional architecture of the language classroom: A conversation analysis perspective. Language Learning*. Malden, MA: Blackwell.

Seidlhofer, B. (2001). Closing a conceptual gap: The case for a description of English as a lingua franca. *International journal of applied linguistics*, *11*(2), 133-158.

Selting, M. (2010). Affectivity in conversational storytelling. *Pragmatics. Quarterly Publication of the International Pragmatics Association (*IPrA), *20*(2), 229-277.

Sidnell, J. (2013) Basic conversation analytic methods. In T Stivers & J. Sidnell (Eds.), *The handbook of conversation analysis* (pp. 77-100). Malden, MA: Blackwell.

Sidnell, J., & Stivers, T. (Eds.). (2013). *The handbook of conversation analysis*. Malen MA: Blackwell.

Spolsky, B. (2004). *Language policy*. Cambridge: Cambridge University Press.

Spolsky, B. (2007). Towards a theory of language policy. *Working Papers in Educational Linguistics*, *22*(1), 1-14.

Star, S.L. (1989). The structure of ill-structured solutions: Boundary objects and heterogeneous distributed problem solving. In L. Gasser & M. Huhns (Eds.), *Distributed Artificial Intelligence* (pp 37-54). San Mateo, CA: Morgan Kaufmann.

Star, S.L. & J.R. Griesemer (1989). Institutional ecology, translations, and boundary objects: Amateurs and professionals in Berkeley's museum of vertebrate zoology. *Social Studies of Science 19*(3), 387-420.

Stokoe, E. (2012). Moving forward with membership categorization analysis: Methods

for systematic analysis. *Discourse Studies*, *14*(3), 277–303.

Steinert, Y. (2010). Faculty development: from workshops to communities of practice. *Medical teacher*, *32*(5), 425-428.

Stivers, T. (2011). Morality and question design:'Of course'as contesting a presupposition of askability. In T. Stivers, L. Mondada & J. Steensig (Eds.), The morality of knowledge in conversation (pp. 82-106). Cambridge: Cambridge University Press.

Stivers (2013) Sequence organization. In T. Stivers, L. Mondada & J. Steensig (Eds.), *The handbook of conversation analysis* (pp. 191-209). Malden MA: Blackwell.

Stivers, T., Mondada, L. & Steensig, J. (Eds). (2011). *The Morality of Knowledge in Conversation*. Cambridge: Cambridge University Press.

Stivers, T., & Sidnell, J. (2005). Introduction: multimodal interaction. *Semiotica*, *2005*(156), 1-20.

Stoller, F. L. (2008). Content-based instruction. In N. Van Deusen-Scholl & N. H. Hornberger (Eds.), *Encyclopedia of language and education. Vol. 4: Second and foreign language education* (pp. 59–70). New York: Springer.

Summerson Carr, E. (2010). Enactments of expertise. *Annual Review of Anthropology*, *39*, 17-32.

Swales, J. (1990). *Genre analysis: English in academic and research settings*. Cambridge: Cambridge University Press.

Tai, H.-Y. (2015). Writing Development in Syntactic Complexity, Accuracy and Fluency in a Content and Language Integrated Learning Class. *International Journal of Language and Linguistics, 2*(3), 149–156.

Tedick, D. J., & Cammarata, L. (2012). Content and language integration in K–12 contexts: Student outcomes, teacher practices, and stakeholder perspectives. *Foreign Language Annals*, *45*(1), 28-53.

Terasaki, A. (2004). Pre-announcement sequences in conversation. In G. Lerner (Ed.), *Conversation analysis: Studies from the first generation* (pp.171-224). Amsterdam: John Benjamins.

Tharp, R. G., & Gallimore, R. (1988). *Rousing minds to life: Teaching learning and schooling in social context.* Cambridge: Cambridge University Press.

Thorne, S. L. (2000). Second language acquisition theory and the truth(s) about relativity. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 219-243). Hong Kong: Oxford University Press.

Valcke, J., & Wilkinson, R. (2017). *Integrating Content and Language in Higher Education: Perspectives on Professional Practice*. New York: Peter Lang.

Van der Walt, C. (2013). *Multilingual higher education: Beyond English-medium orientations*. Bristol: Multilingual Matters.

Van der Walt, C., & Kidd, M. (2013). Acknowledging academic biliteracy in higher education assessment strategies: A tale of two trials. In A. Doiz, D. Lasagabaster & J.M. Serra (Eds.), *English-medium instruction at universities: Global challenges*

(pp.27-43). Bristol: Multilingual Matters.

Vinke, A. A. (1995). English as the medium of instruction in Dutch engineering education (Doctoral dissertation). Delft University of Technology, the Netherlands. Retrieved from http://repository.tudelft.nl/islandora/object/uuid:491b55f9-fbf9-4650-a44dacb9af8412a8?collection=research.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Vygotsky, L.S. (1986). *Thought and Language*. Cambridge, MA: MIT Press.

Wächter, B., & Maiworm, F. (2008). English-taught programmes in European higher education. *ACA Papers on International Cooperation in Education.* Bonn: Lemmens.

Wächter, B. & Maiworm, F. (2014). *English-taught programmes in European higher education: The state of play in 2014*. Bonn: Lemmens.

Walenta, M. (2018). Balancing linguistic and extra-linguistic gains in CLIL: a case for content-based structured input. *International Journal of Bilingual Education and Bilingualism*, *21*(5), 578-590.

Weinberg, L., & Symon, M. (2017). Crossing borders: The challenges and benefits of a collaborative approach to course development involving content and language specialists in different countries. In J. Valcke & R. Wilkinson (Eds.) *Integrating content and language in higher education: Perspectives on professional practice*, (pp.135-150) Frankfurt am Main: Peter Lang.

Wilkinson, R. (Ed.). (2004). *Integrating content and language: Meeting the challenge of a multilingual higher education.* Maastricht: Universitaire Pers Maastricht.

Wilkinson, R., & Zegers, V. (Eds.). (2007). *Integrating content and language: Realizing content and language integration in higher education*. Maastricht: Maastrich University.

Wilkinson, S., & Kitzinger, C. (2006). Surprise as an interactional achievement: Reaction tokens in conversation. *Social psychology quarterly*, *69*(2), 150-182.

Yang, W. (2015). Content and language integrated learning next in Asia: evidence of learners' achievement in CLIL education from a Taiwan tertiary degree programme. *International Journal of Bilingual Education and Bilingualism, 18*(4) 361–382.