Disciplinary Talk:

A systemic functional exploration of university seminar discussions

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Despite the growth of spoken academic corpora in recent years, relatively little is known about the language of seminar discussions in higher education. This thesis compares seminar discussions across three disciplinary areas. The aim of this thesis is to uncover the functions and patterns of talk used in different disciplinary discussions and to highlight language on a macro and micro level that would be useful for materials design and teaching purposes. A framework for identifying and analysing genres in spoken language based on Hallidayan Systemic Functional Linguistics (SFL) is used. Stretches of talk sharing a similar purpose and predictable functional staging, termed *Discussion Macro Genres (DMGs)* are identified. Language is compared across DMGs and across disciplines through use of corpus techniques in conjunction with SFL genre theory. Data for the study comprises just over 180,000 tokens and is drawn from the British Academic Spoken English corpus (BASE), recorded at two universities in the UK. The discipline areas investigated are Arts and Humanities, Social Sciences and Physical Sciences.

Findings from this study make theoretical, empirical and methodological contributions to the field of spoken EAP. The empirical findings are firstly, that the majority of the seminar discussion can be assigned to one of the three main DMG in the corpus: Responding, Debating and Problem Solving. Secondly, it characterises each discipline area according to two DMGs. Thirdly, the majority of the discussion is non-oppositional in nature, suggesting that 'debate' is not the only form of discussion that students need to be prepared for. Finally, while some characteristics of the discussion are tied to the DMG and common across disciplines, others are discipline specific. On a theoretical level, this study shows that an SFL genre model for investigating spoken discourse can be successfully extended to investigate longer stretches of discourse than have previously been identified. The methodological contribution is to demonstrate how corpus techniques can be combined with SFL genre theory to investigate extended stretches of spoken discussion.

The thesis will be of value to those working in the field of teaching spoken EAP/ ESAP as well as to materials developers.

Keywords: spoken EAP/ ESAP, spoken discourse analysis, academic corpora, BASE corpus, speaking skills

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I remain fully responsible for any errors.

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List of Abbreviations/Acronyms

The acronyms/ abbreviations used in the thesis are given and explained below.

Acronym / Abbreviation	Expansion
AH	Arts and Humanities
CA	Conversation Analysis
CL	Corpus Linguistics
DMG	Discussion Macro Genre
ESAP	English for Specific Academic Purposes
EAP	English for Academic Purposes
ESP	English for Specific Purposes
HE	Higher Education
IRE	Initiation, Response, Evaluation
IRF	Initiation, Response, Feedback
NS	native speakers
NNS	non-native speaker
NVC	non-verbal communication
PS	Physical Sciences
SS	Social Sciences
SFL	Systemic Functional Linguistics
UK	United Kingdom
Corpora:	
BASE	The British Academic Spoken English Corpus
BSLC	The Business Studies Lecture Corpus
CANCODE	Cambridge and Nottingham Corpus of Discourse in English
CUCASE	City University Corpus of Academic Spoken English
EDASE	Edinburgh Academic Spoken English Corpus
ELFA	The English as a Lingua Franca in Academic Settings Corpus
LIBEL CASE	The Limerick-Belfast Corpus of Academic Spoken English
MICASE	Michigan Corpus of Academic Spoken English
SCoRE	The Singapore Corpus of Research in Education
T2K-SWAL	The TOEFL 2000 Spoken & Written Academic Language Corpus
VOICE	Vienna-Oxford International Corpus of English

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Glossary of Terms[1]

Concordance	a word or phrase shown with its immediate context
behavioural process	see **process**
Discussion Macro Genre	a stretch of discussion with predictable functional stages and recognisable social purpose
embedded genre	a 'chunk' of text which can stand on its own as a semantic unit within a **DMG** (such as a narrative)
evoked evaluation	indirect realisation of evaluation
Field	the parameter of context covering the activity and domain of context (the other two parameters of context are **tenor** and **mode**)
grammatical metaphor	interstratal relationship between semantics and lexicogrammar – a variation in expression of a particular *meaning*, as opposed to lexical metaphor which is a variation in meaning of a given *expression* (Taverniers, 2003, p. 8)
ideational (metafunction)	one of the three metafunctions, language organised as a resource for construing experience (the other two metafunctions are the **interpersonal** and the **textual)**
ideational metaphor	see **grammatical metaphor**
inscribed evaluation	evaluation explicitly realised through use of positive or negative lexis – compare with **invoked evaluation**
Instance	instances of language make up the language **system**
interpersonal (metafunction)	one of the three metafunctions, language organised as a resource for enacting roles and relationships between interactants (the other two metafunctions are the **ideational** and the **interpersonal** metafunctions)
interpersonal metaphor	see **grammatical metaphor**
keyphrase	unusually frequent phrase in a section of corpus of interest
Keyword	unusually frequent word in a section of corpus of interest
material process	see **process**

[1] Unless otherwise stated, all SFL terms in the glossary are adapted from Matthiessen, Teruya, and Lam (2010).

mental process	see **process**
metafunctions	the highly generalized functions that language has evolved to serve (the three metafunctions are the **ideational,** the **textual**, and the **interpersonal)**
mode	the parameter of context covering the role of language in the context in which it operates (the other two parameters of context are **tenor** and **field**)
move	a discourse smaller unit than a stage, showing an interactive function (elicit or provide)
n-gram	string of words recurring together
obligatory stages	stages of a DMG without which the central purpose of the DMG could not be realised
paradigmatic axis	the axis of the organisation of the language system representing choice (the other axis being the syntagmatic axis)
process	one of the experiential structural elements of a clause construing processes of happening, doing, sensing, saying, being or having that unfold through time and realised through the verbal group (see Appendix 8 for an explanation and exemplification of process types)
propensity	keyness of a term, or the relative frequency of a term in a subcorpus of interest divided by the relative frequency of the term in the reference corpus
relational process	see **process**
stage	a portion of the DMG which has an identifiable function in relation to the whole of the text
syntagmatic	see **paradigmatic**
system	the potential choices available for meaning making through language
tenor	the parameter of context covering the role relationships entered into by interactants (the other two parameters of context are **mode** and **field**)
text	a semantic unit of language (one example of a DMG)
textual	one of the three metafunctions, providing the 'flow' or internal organisation of the text (the other two metafunctions are the **ideational** and the **interpersonal** metafunctions)

Theme	the point of departure of the clause as a message
verbal process	see **process**

‘The teacher sits at the head of the classroom, feeling pleased with herself and her class. The students are engaged in a heated debate. The very noise level reassures the teacher that the students are participating, taking responsibility for their own learning. Education is going on. The class is a success.’ (Tannen, 1998, p. 263)

> A student: ‘If the teacher points at me, I will speak. I will hide if nobody asks me to speak because my English is not good and I can’t speak fluently. I feel shame to speak in front of twenty, thirty something people as they are local and their mother tongue is English.’ (Sovic, 2008, p. 153)

Chapter 1
Introduction

Although writing has a higher status than speech in academia and in western culture more generally, it is largely through spoken discourse that socialisation into an academic discourse community takes place (Mauranen, 2002). One key stage for this socialisation is the academic seminar. Attendance at seminars is an integral part of many undergraduate and postgraduate programmes of study at universities in the UK (see, for example, McMillan & Wyers, 2012). However, learners of English for Academic Purposes (hereafter, EAP) may find participation in seminar discussions daunting (Mauranen, 2002; Sovic, 2008), suggesting the need for support in this area. But while learners of EAP may find it difficult to navigate the demands of learning new oral discourses of their chosen academic discipline, materials for teaching EAP often concentrate on improving student writing and much research in this area has focused on disciplinary differences in writing (Nesi & Gardner, 2012). Although there is a wealth of knowledge on the character of disciplinary writing both on a macro and micro level, research into spoken academic discourse is relatively scarce and has often only covered individual language items such as personal pronouns (for example, Fortanet, 2004; Deroey & Taverniers, 2011). Teaching materials covering seminar discussion skills, such as the popular Garnet English for Specific Academic Purposes series (for example, Walenn, 2009), often concentrate on preparing students for ‘debating’, modelling functions such as ‘giving opinions’ or ‘agreeing and disagreeing’. Whether or not debating is a suitable model for seminar discussion across different disciplines has not been

investigated and little is known about the nature of the language of seminar discussions across different disciplines.

This thesis aims to inform EAP pedagogy and materials design by uncovering the spoken genres of discussion in different disciplines, moving beyond the notion of discussion as debate seen to be suitable for all disciplines. To do this, a corpus of seminar discussions across different disciplines was compiled using files from the British Academic Spoken English (BASE) corpus[2] compiled at two British Universities. The corpus was explored from a Systemic Functional genre perspective, following Eggins and Slade (2005). Chunks of talk shaped by central purpose (for example, of solving a problem) and having predictable functional staging were identified investigated on a macro and micro level. These chunks of talk were termed *Discussion Macro Genres* (hereafter, DMGs). Function and linguistic manifestation of the DMGs is compared, both across DMGs and across disciplines. This chapter outlines the context and need for a functional study of seminar discussions. The theoretical background to the study is also introduced together with a brief outline of the study and an overview of the thesis.

1.1 Context of the study: a changing higher education landscape

The number of students coming to study at UK universities from overseas has grown significantly in recent decades. The benefits are reciprocal; students benefit from the positive reputation that British higher education (HE) enjoys globally, and the financial contribution made by overseas students to British universities is essential to the sector (Hyland, 2009). In UK HE institutes in 2012-2013, international students made up:

[2] The recordings and transcriptions used in this study come from the British Academic Spoken English (BASE) corpus. The corpus was developed at the Universities of Warwick and Reading under the directorship of Hilary Nesi and Paul Thompson. Corpus development was assisted by funding from BALEP, EURALEX, the British Academy and the Arts and Humanities Research Council.

- 15% of full-time first degree students and 13% of all first degree students
- 71% of full-time taught postgraduates and 47% of all taught postgraduates
- 49% of full-time research degree students and 41% of all research postgraduates

The above figures show a 2% rise in each of these areas from the years 2008-2009 when this study began (UKCISA, 2014). Although these figures do not show the numbers of students who are non-native speakers of English (hereafter NNSs) 16 of the top 20 sending countries (by number of students) have English as a second or additional language.

At this point it should be noted that while this study does not distinguish between NSs and NNSs in the corpus. Indeed, it is true that 'academic language is no one's mother tongue' (Bourdieu & Passeron, 1994:8). However, it is recognised that the main audience for this thesis will be those interested in teaching EAP to those for whom English is not a first language. As such, and while recognising that the concept of 'NNS' is not unproblematic (see for example, Davies, 2003), the term as used in much EAP literature is adopted for use.

Responding to this changing body of students and growing numbers of NNS students, universities are offering more support in the way of insessional as well as presessional EAP courses (Hyland, 2009). This support has benefited enormously from the wealth of findings provided by researchers in the field of EAP, with many teaching resources now based on empirical research (for example, Gillet, Hammond & Martala, 2009). As a profession EAP, is not new; the editorial in the inaugural issue of *Journal of English for Academic* purposes in 2002 reflected on the rapid development of the field over the preceding 25 years (Hyland & Hamp-Lyons, 2002). Since then, the field has expanded further, offering, as predicted 'even greater contributions to our understanding of the varied ways language is used in academic communities to

provide ever more strongly informed foundations for pedagogic materials.' (ibid, p. 10). In terms of teaching materials and models for teaching, one key implication of EAP research is the recognition that EAP teachers are not merely 'language' teachers teaching isolated aspects of grammar or vocabulary but that they need an awareness of the differences between disciplinary discourses (differences as noted by for example, Nesi & Gardner, 2012).

However, much of the focus of the research exploring differences in disciplinary discourses has been on academic writing. This focus on writing is understandable, as writing is the main method of assessment, and is therefore the most visible skill that students need to improve in order to succeed at university. However, no less important for academic success is the productive yet often unassessed skill of speaking. Even where speaking is not a compulsory component of a course, being able to participate in the spoken discourses of schooling has been shown to be an important factor in academic success (Bernstein, 1973; Hasan, 2009). The importance of speaking for writing has also been convincingly argued (Elbow, 2012). Taking account of all the benefits of being able to function confidently in the oral as well as written discourses of an academic discipline, the EAP profession is doing its students a disservice if it continues to concentrate on investigating written academic discourses of disciplines while neglecting spoken discourses and developing learners' written skills while neglecting their spoken skills.

The first step in giving speaking the status it deserves is to discover more about the nature of spoken EAP. While lectures have tended to be the focus of EAP research (for example, Simpson, 2004), seminars, the space where students are expected to showcase their speaking skills, have not received so much attention. A small number of researchers have investigated seminar discussion in terms of patterns in interaction (for example, Basturkmen, 2002), or used corpora to look at isolated linguistic items (for example, O'Boyle, 2014). However, none have attempted to compare seminar discussion across the disciplines in HE or to explore functions of discussion beyond the pedagogic over longer stretches of discourse.

1.2 The focus of the present thesis

To address this gap in the research, this thesis explores and compares the generic characteristics of disciplinary discussions on a macro and micro level. It does this by linking the language, meaning and content of seminar discussions across the disciplines in a way that is relevant to EAP students and that will allow the development of teaching materials for seminar skills to be more closely related to disciplinary content. The study uses data from the seminar component of the BASE corpus across three different disciplines from the UK higher education context. For the purposes of this study, a 'discussion' is defined as the section of a seminar where the tutor or other seminar participant has signalled that students are expected to participate in the on-going talk.

In order to link meaning and language in a model of seminar discussion and consider the different types of talk that predominate across different discipline areas, the corpus is investigated using a genre approach in the tradition of Hallidayan Systemic Functional Linguistics or SFL (Halliday, 1978; Halliday & Matthiessen, 2004). Specifically, the study draws on the genre framework for exploring spoken discourse put forward by Eggins and Slade (2005). Using this approach, 'chunks of talk' (Eggins & Slade, 2005, p.54) that share a similar *function* – what are the participants doing in their discussion? – and *linguistic manifestation* – how are they doing it? – are investigated. The 'chunks of talk' identified Discussion Macro Genres, or DMGs, are investigated on the macro and micro level in terms of the functional 'stages' that make up the DMGs and the 'moves', or interactional units that make up the stages[3]. Together, an investigation of the functional and lexicogrammatical characteristics of the corpus allows a portrait to be built up of seminar discussion across the disciplines. This allows linguistic patterns to be explored within DMGs and across disciplines. The study also draws on work from an

[3] Moves in this study are equivalent to the two most fundamental speech roles of giving and demanding – either information or goods and services. These speech roles lie behind all other types of speech roles that may be recognized (Halliday & Matthiessen, 2004), discussed in more detail in Chapters 2 and 4.

English for Specific Purposes (ESP) genre approach, for example, Swales (1990), allowing both similarities and differences across disciplines to be highlighted.

The hierarchy of the relationship outlined above (seminars, discussion, DMGs, stages, moves, and lexicogrammatical patterning) is shown in Figure 1.1.

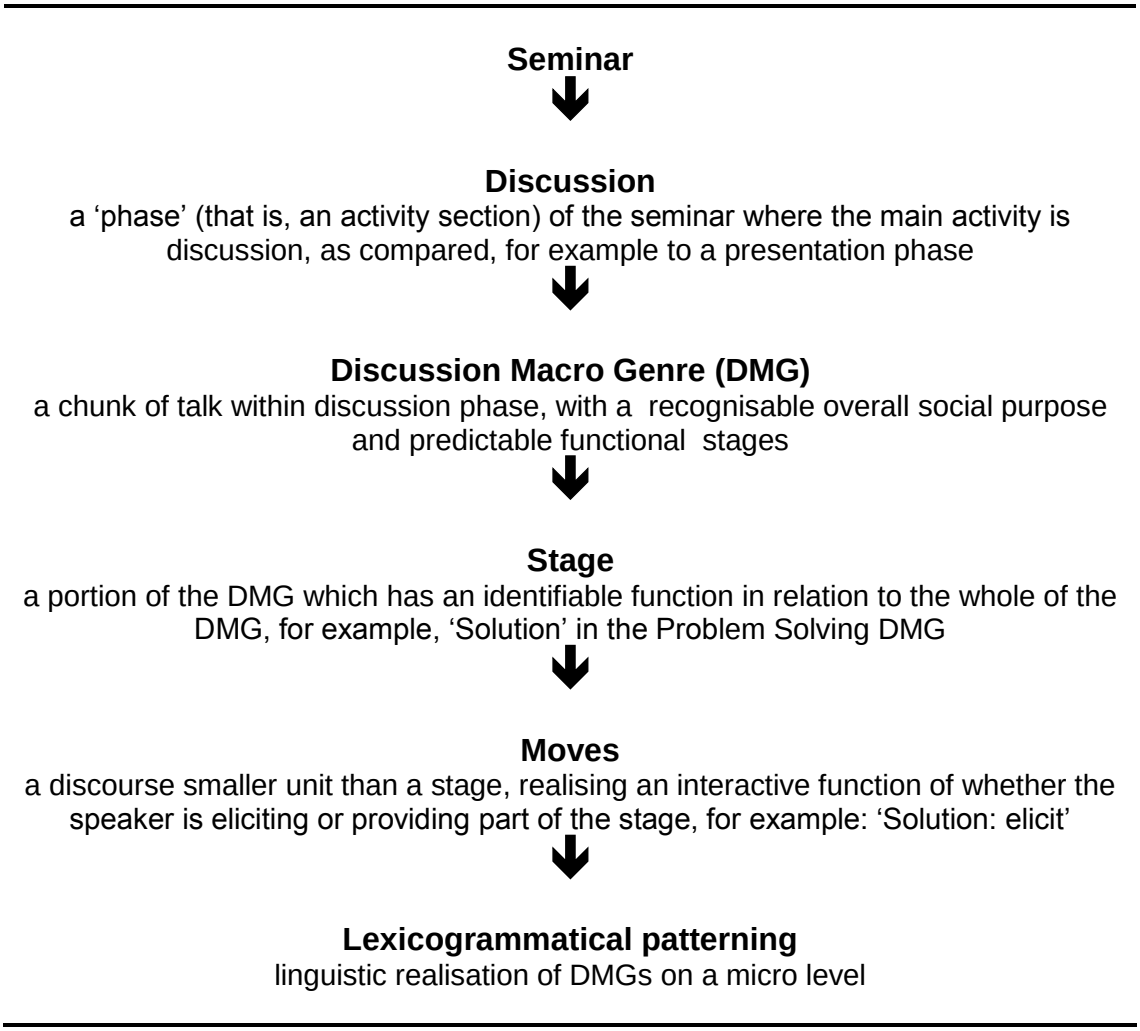


Figure 1.1 Hierarchical relationship of elements of study

1.3 Research questions

The overarching research question is:

1. What are the key characteristics of seminar discussions across disciplines?

To address this, the following sub-questions are investigated:

2. Which DMGs are used by participants in academic seminar discussions in the BASE corpus of seminars, recorded at two British universities?
3. What is the distribution of DMGs across the disciplines in the corpus?
4. What stages comprise each DMG?
5. What are the key language features of the stages in the DMGs?
6. How are the DMGs manifested similarly or differently across the disciplines within the corpus?

1.4 Data and analysis

Specifically, the study reported here used a corpus of 186, 202 tokens (that is, total word count) of authentic seminar discussions from two UK universities, the British Academic Spoken English corpus (BASE), across three discipline areas. No attempt was made to select seminars in which the discussions which seemed to be of a 'higher' quality, as the thesis aims to reflect the reality of seminar discussions, rather than presenting an idealised picture of academic discussion, as often found in EAP teaching materials.

An overview of the corpus is given in Table 1.1.

Table 1.1 Makeup of the seminar corpus

Discipline area	Tokens	Tokens of discussion	Number of seminars
Arts and Humanities	81,504	67,826	6
Physical Sciences	51,835	50,905	5
Social Sciences	52,863	44,969	6
Total	**186,202**	**163,700**	**17**

The analysis for this study begins with a qualitative categorisation of the texts into phases (different activities within the seminars, for example, presentations or discussions) and then, within the discussion phases, into DMGs. The DMGs are then further broken down into stages and moves. The study also employs quantitative corpus techniques in order to investigate language on the micro level through the metafunctions of language. These metafunctions of language encode the main meanings or contexts of situation that language has evolved to describe – ideational meanings, interpersonal meanings and textual meanings (Halliday & Matthiessen, 2004)[4].

1.5 Structure of the thesis

This thesis is divided into ten chapters. Following the introduction, Chapters 2 and 3 locate the thesis in two relevant fields of research. Chapter 2 outlines relevant literature in the fields of Education and spoken classroom discourse;

[4] The metafunctions of language according to SFL theory are discussed further in Chapters 3 and 4.

while Chapter 3 discusses the concept of genre in EAP, covering both its theoretical aspects and empirical research relevant to the present thesis. Chapter 4 explains the research design, and the following four chapters, making up the results section, present a quantitative overview of the makeup of the seminar discussions and give details about the micro analysis of the three main DMGs investigated in the corpus. The discussion which follows in Chapter 9 draws the key findings together, and considers how they relate to the previous research in the field. Chapter 10 concludes the thesis by noting key theoretical and practical implications, as well as suggesting directions for future research, highlighting the fact that, although this is an important first step in characterising seminar discussion according to a functional model, more work needs to be done so that EAP professionals can be armed with the resources to teach EAP students the seminar skills they require.

Chapter 2
The seminar as an educational event and seminar discussion as spoken discourse

The main part of this chapter discusses key findings from studies into spoken educational discourse and what they have contributed to our knowledge of classroom talk and particularly seminar discussion. First however, is a short introductory section to define seminars and their aims.

2.1 The seminar: definitions, aims and effectiveness

There are various definitions of seminars in the literature from the field of Education Studies or in guides for HE pedagogy. Some (for example, Brown & Atkins, 1988; Exley & Dennick, 2004) use number of participants to differentiate the seminar from other methods of instruction. For example, a 'typical' tutorial has four to 12 participants while a seminar has 10-25 participants (Exley & Dennick, 2004, p. 2). However, a glance at the BASE[5] corpus used for this study shows that defining according to number is problematic, as some universities categorise seminars as having fewer than four participants (possibly for a very small postgraduate department). Others, for example, Jaques and Salmon (2007), describe the purpose of the class as the main differentiator. In their view, a tutorial focuses on student difficulties while a seminar has 'fairly intellectual aims' (Jaques and Salmon, 2007, p. 95), discussing issues arising from the subject matter, although how to differentiate between 'student difficulties and issues arising from the subject matter' remains unclear. A seminar is, in addition, according to Jaques and Salmon, topic-oriented and usually involves a student presentation or report. Curzon (2004) describes the difference between a seminar and a lecture as being in the method of instruction: a lecture is largely teacher-centred, while a seminar is student-centred.

[5] The BASE Corpus is discussed in detail in Chapter 4.

It seems then that terms such as seminar and tutorial mean different things in different institutions and there is generally a lack of clear definition as to what a seminar is (Bligh, 2000). Given this lack of clear definition, in this study seminars are chosen from the BASE corpus which the departments themselves termed seminars, rather than attempting to categorise seminars as such according to number of participant or mode of instruction (this issue is discussed further in Chapter 4).

Despite these various definitions of a seminar in the literature, there seems to be a consensus about the aims of seminars: that is, that they act as a platform for students to actively participate in discussion and critically engage with their subject knowledge through an exchange of ideas with fellow students and tutors. For example, the Learn Higher resource[6] states that seminars will deepen students' understanding of topics studied (Brunel University, 2010). The website presents various transferable skills relating to discussion that students are expected to gain from seminars, including: negotiating, sharing knowledge, developing arguments and dealing with conflicting opinions (ibid.).

However, it has been noted that seminars often fall short of meeting the aims stated above. In relation to levels of participation, Ramsden (2003) argues that many students can fail to participate and become reluctant to speak, and, in presentation-type seminars, the tutor questions the student and the seminar turns into a mini-lecture by the tutor with the 'star speakers' dominating. Similarly, Evans (1983) found the presence of the tutor to be inhibiting, and found that only the tutor in the seminars investigated practised all the key functions identified (summarising, rephrasing and making procedural suggestions). This echoes much earlier research by Baumgart (1976) who, in identifying six different tutor roles, found that tutors made most of the *structuring* and *soliciting* moves, thus highlighting the dominating role of tutors and again questioning the seminar's success as an event for encouraging student participation. Hunt and Chalmers (2013) note how challenges to

[6] A network for staff teaching in HE, with resources hosted on Brunel University website.

meeting seminar aims include the lack of preparedness of students in terms of not having read the materials set and, if they had read the materials, a lack of ability to critically interrogate them; although they go on to note how these challenges can be overcome. However, Berrill (1991, p. 143) notes that the 'failure' of students to meet the aims of seminars could in fact be because of unrealistic tutor expectations.

Despite the pessimism noted above, it seems that that well-prepared and well-facilitated seminars may be effective, especially in comparison to less interactive forms of teaching. For example, one study comparing styles in different university teaching events found that seminars seemed to be more effective than lectures in helping to change attitudes, encourage thinking and develop behavioural skills (Lammers & Murphy, 2002). Similarly, Exley and Dennick note the learning benefits resulting from the active interpersonal communication possible in small group teaching and specifically in discussions (Exley & Denick, 2004). Possible reasons for the effectiveness of small group discussions noted by this later literature are that teachers might have become more expert in facilitating effective seminars, or that students have become more accustomed to participating 'freely' in academic speech events, also resulting from evolving teaching methods in higher education (see, for example, Hunt & Chalmers 2013, for an example of current thinking on HE pedagogy with an emphasis on interactive learning and teaching methods).

In sum, emerging as a common theme throughout the literature in the field of Education Studies is the lack of clear consensus as to what the seminar as a university teaching event actually is. Results from research into seminars disagree about whether the various aims stated for seminars and discussion classes such as critical thinking and student interaction actually correspond to what happens in reality. Some problems reported involve those of unequal participation and an inhibiting tutor presence. Others are more optimistic about the use of seminars and small group discussions. Although there are various prescriptive approaches to or definitions of the seminar, especially in guides to

HE teaching, studies describing what actually happens in seminars are hard to come by.

The next section outlines what we know about classroom or seminar talk from the fields of Education and Applied Linguistics. Because of the paucity of research into university classroom talk, specifically seminars, relevant research investigating school classroom discourse is also discussed.

2.2 Seminar discussion as classroom talk: what we know

In previous research into classroom talk, three broad groups of research are found that are relevant for the present study. These are, firstly, studies that have answered questions about the sociological and sociolinguistic aspects of classroom talk and point to the need for students to be able to perform multiple roles with language. The second group are studies which have added to our knowledge about the cognitive aspects of classroom talk, highlighting the importance of particular types of talk for learning. Although this descriptive study does not investigate questions about classroom talk and society, or about the cognitive benefits of the seminar discussions, findings from these first two groups of research form an important backdrop to the present study in terms of the multiple demands and the power structures that students need to deal with through language, and also the different types of talk that can facilitate learning. The third group of studies is those that have given insights specifically into the language of classroom talk. This final stream of research is most relevant to the present linguistically-oriented study. The discussion of this literature, which is necessarily more detailed than the two preceding discussions, addresses studies which have asked questions about language: either about the extended structure of classroom talk, or about particular linguistic elements. Here, I consider how both corpus linguistic methodologies and the availability of spoken academic corpora have added to our knowledge about seminar discussion.

2.2.1 Classroom talk and society: participation, power and identity

Research into classroom language aiming to answer sociological or sociolinguistic questions has focussed broadly on the interactional aspects of language and the relationships between language and social structures. Issues investigated include participation and power (for example, Fiksdal 2014), and identity or speaker roles (for example, Benwell & Stokoe, 2002). This research has often used the kind of approach developed by sociologists working in the 1960s and 1970s in North America and adopted by linguists as Conversation Analysis (CA), for example, Sacks, Schegloff & Jefferson (1974). CA, with its roots in ethnomethodology, is interested in 'paying to the most commonplace activities of daily life the attention usually accorded extraordinary events' (Garfinkel, 1984, p. 1).

Such studies have shown the more powerful interactants in terms of status or access to favoured discourses are at an advantage when it comes to participating in seminar discussions (for example, de Klerk, 1995), and that tutors can play a role in reinforcing this privilege (Fiskdal, 2014). Such findings echo research from the field of Education Studies noted above which has pointed to unequal levels of participation in seminars. For example, Bashiruddin, Edge & Hughes-Pelegrin (1990) noted that higher status participants, that is, tutors, those more familiar with British culture, and also men, made more contributions at UK post-graduate Linguistics seminars. In a culturally-related study of power relations in post-apartheid South Africa, de Klerk (1995) investigated students in postgraduate seminars and found significant differences in floor-holding and discourse patterns. Her research showed that

> it is clear that it is not language per se that is an instrument of power, but rather that power is exercised through the production, accumulation, and functioning of the favoured discourse, thereby creating disadvantage for those whose practices differ from the established norm (de Klerk, 1995, p. 173).

More recently, Fiksdal (2014) has shown that those students who have access to more respected discourse amongst their peers have more power in seminars, even though they may not be displaying a high level of critical thinking. She notes that tutors need to recognise the authority students can gain, and not assume that quiet students are comfortable with their silence. A further way that Fiksdal observed that unequal power relationships can be negatively reinforced in seminars is by labelling students with one part of their identity. For example, by commenting, 'Peter, you are native American, what do you think about this question' (Fiksdal, 2014, p. 90). These studies point to the importance of not only allowing students access to the discourses of power, but making tutors aware of their own role in reinforcing power structures.

By exploring participation in tasks, a number of other studies are positive about the way that students manage to perform different roles, academic or otherwise, within a classroom. These studies demonstrate that students are often able to use language to perform multiple identities (for example, Viechnicki, 1997; Waring, 2002). An exception to this is the study by Benwell and Stokoe (2002): the authors note how both students and tutors in their university classroom responded in a negative way to academic identity, marking it as unusual, by for example, their inclination towards irony. Tutors and students, they suggest, are 'united by their detachment from the academic endeavour' and the authors conclude that this 'might be seen as an alarming example of a 'dumbing down' culture' (Benwell & Stokoe, 2002, p. 450).

Far from finding a dumbing down culture where students resisted academic roles, Waring's (2002) investigation into postgraduate seminars identified a dispreference for expressing lack of comprehension in seminars and found that students dealt skilfully with the issue of non comprehension. Similarly, Viechnicki, combining CA with Goffman's theory of participant roles and 'footing' (Goffman, 1981), found that speakers used various techniques to preserve face, 'changing footing between their classroom and non-classroom personas' (Viechnicki, 1997, p. 110). She notes that by using personal-point-of-view prefaces (*I think* or *In my opinion)*, the student can switch between

personae. Particularly relevant for the present study is the ability to use language in order to deal with the multiple functions of language apparent in discussions. There is also tension between the intention of a student to put forward ideas to the tutor who will obviously grade her, but also the informal 'conversation-like' nature of the graduate seminar (Waring, 2002).

The ability or 'inability' of non-native speakers (NNS) to participate in interactive speech events in HE has also been the subject of much interest, although the reasons for this lack of participation remain undetermined. While lecturers in one study attributed the lack of participation to cultural differences, the students reported that it was due to linguistic difficulties (Hennebry, Lo & Macaro, 2012, p. 225). This work supports findings from other studies that argue against a perception of particular groups of students, usually South East Asian students, as being culturally disposed to non-participation and claim that further language awareness and support is required, for example Ellwood & Nakane (2009).

It seems that the more plausible explanation is that in fact non-participation can be attributed to both linguistic as well as sociopragmatic difficulties. Difficulties have been reported in both comprehension and speaking, with NNS lacking the 'fluency, subtlety and confidence in English' (Lynes & Woods, 1984, p. 274) as well as the ability needed to be actively involved in seminars. Researchers using CA approaches have also found that NNS had problems with turn taking, or with selecting who would be the next speaker. In terms of sociopragmatic difficulties, Micheau and Billmyer (1987) found that NNS tended to make *violative* attempts or interruptions to take the floor and that they were also reluctant to self select. Lynch and Anderson (1991) noted that NNS generally did not disagree with the views of previous speakers and that they tended to ask more 'new' questions than questions incorporating previous content. They, in contrast to Micheau and Billmyer (1987), found that NNS tended *not* to interrupt.

This overview of studies investigating sociological or sociolinguistic questions surrounding classroom talk has demonstrated that power in seminars can be related to status or language. It has shown that it is important for students to have access to the dominant discourses in order to gain authority in seminar discussion. As noted by Fiksdal, a seminar is a conversation where shifts in power occur (Fiksdal, 2014) and students need to master the dominant discourses in order to negotiate such power shifts. To gain control of these discourses, students need recourse to language that will allow them to perform multiple roles.

While this study does not focus specifically on any of the themes emerging from the above research, it recognises the challenges and multiple aims that students need to meet through the use of language, therefore these studies form a necessary backdrop. In elucidating the language used in seminars, it hopes to identify the linguistic tools students need to negotiate the challenges of power, participation and identity. In order to function effectively in this interactive forum, students need to master the different and simultaneous strands of meaning that are modelled in SFL through the three metafunctions of language – the ideational, the interpersonal and the textual. These issues are returned to in Chapters 6-10.

The next section describes studies focussing on the cognitive aspects of classroom talk.

2.2.2 Classroom talk and learning: dialogue and disputation

The second category of studies covered in this literature review is those that use the investigation of the language of classroom interaction to answer questions about the cognitive aspects of talk. These studies, as noted by Mercer (2010), have often taken a s*ocio cultural discourse* approach. This approach is underpinned by Vygotskyan notions of language as both a cultural and a psychological tool (Vygotsky, 1978, as noted in Mercer & Howe 2012); as well as Bakhtin's (1981) ideas about the importance of dialogue for learning. Works such as those by Mercer (2000), or Wegerif and Mercer (1997), have

been interested in the effects that dialogue has on learning, or 'its content, function, and the ways shared understanding is developed, in social context, over time' (Mercer, 2010, p. 9). Such studies have mainly investigated school discourse and have been particularly interested in peer-to-peer talk, analysing and evaluating children's talk in small groups: for example, Mercer and Littleton (2007) and Fisher (1993). However, these findings are nevertheless applicable to an HE context and thus relevant to the present study.

These studies have demonstrated that different types of talk are more or less conducive to learning. It seems that a type of talk known as 'exploratory talk' contributes more to learning than other types of talk such as 'disputational' or 'cumulative' talk (Fisher, 1993; Mercer, 1995). In disputational talk, speakers generally tend toward disagreement and tend not to build on each other's ideas. In cumulative talk, speakers 'pick up and add to previous statements, apparently without challenge' (Fisher, 1993, p. 253). Exploratory talk, on the other hand, depends on ideas being challenged and counter challenged but then on the joint acceptance or modification of ideas (ibid., 1993). Along similar lines, and arguing the importance of particular types of talk rather than just *any* talk for guiding learning, is Alexander's argument, developed since 2000, for the recognition of the importance of dialogic pedagogy (for example, Alexander, 2008). The implications of its findings for this study are that, as argued by Alexander, speaking should be viewed as *part* of literacy and fundamental to learning, rather than as an 'afterthought'; and that speaking conducive to learning does not just 'happen', but needs to be carefully guided. The above studies suggest that, in investigating the language of seminars, it is therefore important not only to explore the types of talk that emerge from the investigations, but also to investigate if and how the talk is guided by tutors to meet disciplinary aims.

Researchers investigating university classroom discussion have similarly found dialogue to be an effective means of learning under certain conditions. Combining Bakhtinian perspectives and ethnographic methods, Bentley (2010) shows that assessed student-led seminars, peer facilitation, and the use of

different types of discussion can amplify the student learning experience and also leave the power dynamics of the classroom open and fluid. Tan (2003), following in this tradition in an EAP context, explores whether 'convergent' tasks, that is, tasks in which there is one truth, are conducive to learning, by assessing whether such tasks produce exploratory talk. As concluded by Tan, convergent tasks *can* produce exploratory talk, but only where students have the necessary knowledge available to them. Thus, as she notes, it is

> 'important to nurture academic strategies not in isolation but in combination with academic knowledge as it is possible that the exploratory talk is the outcome rather than the cause of knowledge' (Tan, 2003, p. 65).

This suggests the need to integrate EAP programmes more closely with students' academic subject programmes and the need to investigate disciplinary discourses in order to be able to integrate language and content in a way that is meaningful for students.

These studies have shown the importance of particular types of talk for learning. As such, they provide an essential backdrop to the present study, which begins from the premise that dialogue is essential in learning. The notion of the importance of different types of talk for learning will be taken up again in detail in Chapter 9 when comparing the different DMGs in the corpus.

2.2.3 The language of classroom talk: organisation and micro patterns

The third major aspect of classroom talk discussed here is the language of university classroom talk in terms of its organisation and linguistic features at the micro level. This section discusses the language of classroom talk in two parts: firstly, those findings from investigations into the organisation of classroom talk using the 'Birmingham School' structural functional approach with a brief consideration of how this approach relates to that used in the present study; and secondly, findings from studies investigating various aspects of language in university classroom talk using corpora. There are studies that

have used other approaches to explore the organisation of classroom interaction on a micro level (see for example, Seedhouse, 2004 for useful insights into the organisation of the L2 classroom talk from a CA perspective). However, these studies are not relevant for the analysis undertaken in the present study and are not discussed further.

2.2.3.1 The organisation of classroom talk

Sinclair and Coutlhard's seminal works were among the first to recognise structural patterns, specifically a three part *Initiation-Response-Feedback* or 'IRF' pattern, in classroom discourse (Sinclair & Coulthard, 1975; Sinclair, 1992). These works paved the way for a host of related studies in what is often called the Birmingham School (Eggins & Slade, 2005, p. 43). Early on, the framework was mainly used to investigate talk in traditional teacher-fronted classrooms. Aiming to account for the overall structure and patterning of discourse, Sinclair and Coulthard put forward a hierarchical model of acts, moves, exchanges, transactions and lessons which make up the predictable pattern of the classroom. In such an exchange structure analysis, the exchange is the basic form of interaction, and the three part IRF exchange was put forward as a model for classroom talk showing that this was the dominant exchange pattern in teacher-fronted interaction in the primary classrooms they investigated.

Sinclair (1992, p. 33) gives the following example:

T Initiation: Where does he live?

P Response: Rome

T Feedback: Rome yes

The above is a simple three part classroom exchange consisting of the IRF moves. A similar pattern was identified by Mehan (1979), who used the acronym IRE, or Initiation-Response-Evaluation. While researchers of classroom interaction agree that the IRF/ IRE pattern is ubiquitous (noted by Wells, 1993) few have argued that it is the most effective pattern for learning. A

number of researchers investigating school classrooms have suggested IRF is *not* an effective pattern (Mehan, 1979; Cazden, 1986, 2001). Others have suggested that students are capable of changing the course of the IRF pattern, and teachers allowing the space for students to do this can provide opportunities for deeper learning. In an adult ESL context, for example, Waring (2009) notes that although the IRF pattern does provide certain opportunities for learning, a student-initiated departure from these sequences 'makes available a wider range of opportunities for understanding the core issues in more depth or exploring peripheral issues that would not have emerged within the constraints of IRF' (Waring, 2009, p. 816). Also in an ESL setting, Garton (2002) similarly notes that learners can take the initiative to move out of IRF patterns for effective learning, but that they need to be given time and space to do so, and that learner initiative should be encouraged.

The early focus on the teacher-fronted interaction of traditional schooling perhaps explains why the approach has not been widely used to investigate more interactive university classrooms. There are however, a small number of exceptions. Tapper, investigating NNS performance in a number of university classroom situations, found that different eliciting acts were used depending on whether the context was a laboratory, lecture or seminar (Tapper, 1996). Basturkmen, investigating Business Studies seminar discussion, included a further 'Acknowledgement' move (Basturkmen, 2003).

Studies in the IRF tradition over the past four decades have thus provided important insights into the way that classroom talk can be structured, but they have tended to focus on structure only, rather than attempting to link this to meaning. This thesis draws on these studies by recognising that classroom discourse can have predictable structures over stretches of discourse. However, as will be further discussed in Chapter 3, a model is needed that takes account of the wider purpose of the moves within exchanges, and that also has the flexibility to deal with the more interactive talk of seminar *discussions* rather than teacher-fronted classroom talk.

The Birmingham approach used in the studies above, like Systemic Functional Linguistics, comes under the structural functional umbrella (as noted by for example, Eggins & Slade, 2005). These approaches share a common orientation to discourse in general, relating the description of the structure of talk, that is, discourse, 'to that of other units, levels, and structures of language' (Eggins & Slade, 2005, p. 43) such as grammatical units like the clause. Far from being just about the structure of discourse, however, both approaches derive from the semantic theories of Firth and view of 'context of situation' (Firth, 1957, p. 182) as imperative. This context of situation was further expanded on through Halliday's (1978) notion of register, discussed further in Chapter 3.

The two approaches have differed in their development despite their similar origins. While the Birmingham school has tended to focus on the organisational structure of discourse, 'Halliday's approach and the development of systemic perspectives led him to the semiotic orientation in his work' (Eggins & Slade, 2005, p. 44). That is, Halliday's approach considers choices in meaning making (the semiotic orientation) from within a system of language. The theme will be taken up again in Chapter 4 where it is explained that, for the purposes of this study, it is necessary to combine a Hallidayan SFL approach to analysing dialogue with an SFL genre approach to analysing chunks of talk. However, in brief, an SFL approach as used in the present study allows the following features of seminars to be investigated:

- Semantic patterns
- Generic structure patterns (DMGs and stages)
- Discourse structure features (moves)
- Grammatical and lexical patterning within the DMGs (adapted from Eggins & Slade, 2005)

This subsection has shown that previous studies of classroom interaction using a structural functional approach have provided valuable insights about the nature of teacher-fronted classroom interaction. It has suggested that a further

semiotic orientation is needed, that is, a focus on the meanings made in talk, following Halliday's work, in order to account for the disciplinary content as well as the structure of the interactions in the study corpus.

2.2.3.2 Micro patterns of university classroom talk: corpus studies

This next section turns to the investigation of individual items of language in spoken academic discourse investigated using corpora. Corpus Linguistics in this study is viewed as a method, rather than a theory (this follows the view of, for example, McEnery & Hardie, 2012).[7] Indeed, many studies utilise corpus techniques as a method in combination with one or more of the theoretical approaches referred to above. However, because of the substantial contribution that corpus research has begun to make to our knowledge of spoken academic discourse, studies highlighting the use of corpus tools in their methodology are included.

In recent years there has been a huge growth in spoken and written academic corpora available for research into academic discourse. Among the publically available corpora is the British Academic Spoken English Corpus (BASE), which is used for this study. Other publically available spoken academic corpora include MICASE, The Michigan Corpus of Spoken Academic English, and VOICE, the Vienna Oxford Corpus of English as a lingua franca.[8] The discussion of the choice of corpus in Chapter 4 shows that out of available corpora, the BASE corpus is the most appropriate for a study of disciplinary discourses in UK HE.

While researchers have begun to take advantage of the availability of these publicly available spoken academic corpora to investigate the language of academic talk, lectures still receive a lot more attention than seminars. On

[7] Though the distinction is discussed further in Chapter 4, using Corpus Linguistics as a method basically entails the use of computerised datasets to investigate language, rather than corpus linguistics having a theoretical status (as noted by for example, Tognini-Bonelli, 2001).
[8] A full discussion of the different academic corpora available is beyond the scope of this thesis, although an overview of spoken academic corpora is provided in Appendix 1.

the BASE website of publications, of the theses which incorporate BASE data (a total of 25), only two reference the seminar component of BASE as a source for research investigation. In keeping with the origins of Corpus Linguistics in the study of lexis, these two studies investigate the lexis of both seminars and lectures (Dang & Webb, 2014, and Nesi, 2002). As corpus research on seminars is sparse, this section also includes studies that have explored classroom discourse in lectures where these studies are relevant to the micro features investigated in the DMGs. Features investigated to date in university classroom settings are unsurprisingly mostly items of language that can be easily identified in a corpus. These include discourse markers, elements of variation, personal pronouns, evaluative language and functions on the micro level. An overview of research into these five features (taken up again in Chapters 6-9) is given below.

The first of these features, discourse markers such as *so,* or *you know*, have been shown to be an area of spoken academic discourse that EAP students need to master both in terms of receptive and productive skills. Discourse markers signal the organisation of lecture talk, and exploring how they do so has the potential to help students with their listening skills (for example, Crawford Camiciottoli, 2004; Deroey & Taverniers, 2011; Deroey, 2012). Discourse markers are also important in student talk, but it seems that NNS students have difficulties with this area of language. Santana-Williamson (2004), for example, examined the MICASE corpus to compare the abilities of native and non-native speakers to use discourse markers and conversational hedges in 'unplanned speech' within the university context. She found that the non-native speakers lacked the ability to use hedges and discourse markers in a native-like way. Similarly, Fung and Carter (2007) compared corpora of native and non-native speakers of English to find that native speaker talk exhibited a wider variety of pragmatic functions in using discourse markers than non-native speaker talk. Their study used the pedagogical section of CANCODE (The Cambridge and Nottingham Corpus of Discourse in English) and a Hong Kong corpus of secondary school data, although one limitation of this study is that it is

unknown whether the corpora used are comparable, as the exact data used from CANCODE is not specified. The above studies demonstrate the importance of discourse markers in academic speech and this topic will be discussed again in the following chapters: in Chapter 4, where the use of discourse markers for recognising stage boundaries are explained; in Chapters 6 to 9 where the importance of particular discourse markers in particular DMGs and stages is highlighted.

Corpus studies exploring the second of these features – variation – have highlighted differences in language used in different academic contexts, or by different participants. Investigating the BASE lecture corpus across disciplines, Nesi (2005) found that lecture speed varies according to context and purpose. Also exploring disciplinary variation, Poos and Simpson (2002) noted a number of disciplinary differences in hedging in MICASE. Investigating variation according to mode, Biber (for example, 1990; 2006) has been a pioneer in corpus variation studies in academic discourse using his multidimensional (MD) model of analysis. This model is based on searching for predefined features identified from a literature survey to investigate variation across speech and writing. Using this technique he has helped to dispel the myth that speech and writing form a dichotomy rather than lying on a continuum (Biber, 2006). Biber, is of course by no means the first to recognise this fact; see, for example, Halliday (1989).

Variation studies have also found that there are some features that are distinctive to writing or to speaking. Biber, for example, found that in his corpus, ‘stance is overtly marked to a greater extent in the spoken registers than the written registers’ (Biber, 2006, p. 87). Such work indicates the need, if not for separate spoken grammars, such as those called for by McCarthy and Carter (2002), then for a clear recognition of the differences between spoken and written language.

There are only a small number of researchers who follow the MD approach to investigating academic talk, but they have nevertheless made

substantial contributions to this area. Investigating whether classroom talk in particular is more like conversation than academic prose, Csomay (2006) supports previous research pointing to the hybrid nature of spoken academic discourse. Exploring a very large data set of university classrooms from MICASE, Csomay (ibid.) found that the talk of North American classrooms involves features that are like academic (written) prose with an informational focus, and also features that are more like conversation (which she terms 'involved discourse'). The classroom thus exhibits features that can be treated as 'an interface on an oral–literate continuum' (Csomay, ibid., p. 117). The key for learners will be in recognising of which features are prose -like and when to use more conversational language, something considered in this study.

It seems that as well as there being differences in how things are said by different participants, there are also differences in what and how much is said, or particular moves made according to teacher/ student status. While teachers in university classrooms use linguistic features associated with contextual, directive orientations, students use mostly features associated with 'personalised framing features' (Csomay, 2007, p. 341). This supports much earlier research that notes the importance of tutors in guiding student talk, or providing the eliciting moves (for example, Baumgart, 1976) as well as research from sociocultural studies highlighting the importance of tutors guiding effective discussion (for example, Alexander, 2008). Csomay (2007) also found, perhaps unsurprisingly, given that there are more students than teachers, that overall students take more turns, but that teacher turns are longer (perhaps a result of teachers' greater knowledge and higher status). The research highlights the relevance of tutor talk in investigating academic seminars in order to help students follow the linguistic clues offered to participate in seminar discussions, and to follow the content of the seminars.

A third crucial feature of spoken academic discourse, personal pronouns have been found to play an important role in expressing various interpersonal functions. Specific personal pronouns used can signal how monologic or interactive lecture talk is (Fortanet, 2004; Deroey & Taverniers, 2011). Hyland,

investigating the MICASE corpus, found that *we* was used less often in seminars than in large lectures. While in the lectures, *we* is used as an audience inclusive pronoun to reduce the distance between the speaker and audience and provide a common purpose (Hyland, 2009), in the MICASE seminars, *I* and *you* are more commonly used, signalling direct participant involvement in the seminars, and showing how participants interact with each other. Personal pronoun use it seems is also tied to effectiveness, with *we* occurring most frequently in the language of lecturers perceived by students as 'effective' (Rounds, 1987). Fortanet (2004), using lecture data from MICASE, found similarities but also some differences to Rounds' study which was conducted at the same university albeit pre MICASE. Fortanet found that *we* occurs half as many times as other pronouns whereas Rounds found it was most frequent (Rounds, 1987). Fortanet speculated that this difference may be due to changes in the language style used over time. She identified some additional functions from those found by Rounds, including a metadiscoursal function of *we*. The studies have highlighted the importance of personal pronoun use for various purposes according to context. The use of various personal pronouns is discussed again in Chapters 5 to 9. In these chapters it will be shown that different DMGs and different stages have a tendency to foreground certain personal pronouns.

Fourth, evaluative language and the interpersonal metafunction ('language organised as a resource for enacting roles and relationships between interactants' (Matthiessen, Teruya & Lam, 2010)) has been found to have an important role to play in spoken academic discourse. However, no corpus studies have specifically looked at seminars from this perspective. Academic contexts examined include dissertation defences (Recski, 2005), lectures (Fortanet, 2004) and guest lectures (Crawford Camiciottoli, 2004). Mauranen has made a number of observations of evaluation in spoken academic English (for example, 2002; 2004). She suggests that certain sections of academic talk are more like conversation than formal talk, and in these sections of talk, the interpersonal metafunction is foregrounded

(Mauranen, 2002). She also demonstrates that there is a tendency to consensus in the spoken academic discourse she investigated (Mauranen, 2002). It seems that praise is more common than criticism, and positive lexical items are easier to find in spoken academic discourse than their negative counterparts; also mitigators are more often found with critical items and intensifiers are more often found with positive items (ibid.). This orientation to consensus and to non-face threatening acts is similar not just to findings from research into casual conversation (Eggins & Slade, 2005), but also reflects what researchers investigating talk in other institutional contexts have found. Business talk for example, despite its goal-driven nature, is

> fundamentally conversational, sharing a great deal with the banal talk of everyday sociability, underlining its core orientation towards comity, convergence, and satisfactory and non-threatening relationships, even in the face of hierarchically conditioned institutional roles (McCarthy and Handford, 2004, p. 187).

While academic speech is similar to other types of institutional and non-institutional talk in its orientation to protecting relationships, some markers of negative evaluation may be different from what we would expect to find (Mauranen 2002; 2004). *It seems* is traditionally taken as a hedge, but in academic language, the expression *it seems to me* asserts a stance and already, 'by asserting a view, the speaker inevitably sets up an opposition between that viewpoint and its actual or potential opposites' (Mauranen, 2002).

There are further differences in hedging language between spoken academic discourse and talk in other setting. Mauranen (2004) compared general spoken English (in the British National Corpus) with academic spoken English (in MICASE). She found that there are huge discrepancies in the type of hedges ('epistemic' and 'strategic') used in the two varieties, but concedes that this could also be due to the comparison of two different language varieties (British and American English). Again, although indicating the importance of participants in academic discussion having recourse to the appropriate evaluative language of academic discourse, none of the studies specifically investigated seminar discussion.

As well as context affecting evaluative language, studies from an SFL perspective have shown that the *stage* in an interaction has an effect on whether interpersonal meanings are foregrounded over ideational meanings. However, again, none of these studies have specifically investigated seminar discussion. Hood and Forey (2005), exploring different stages in introductions to conference paper presentations, investigated interpersonal devices including expressions of attitude used, using the APPRAISAL framework, a framework for investigating evaluative discourse (Martin & White, 2005).[9] They found that particular stages of an introduction foreground the interpersonal over ideational meaning and leave the speaker's position open to negotiation. In a similar SFL-based approach, Recksi (2005) investigated modal selections in dissertation defences and the importance of the interpersonal (specifically devices for conveying a speaker's commitment to propositions) in relation to the ideational. He found that selections are 'functional and consistent with the aims of the speakers at any point within the dissertation defence' (Recksi, 2005, p. 20), either displaying a 'confident certainty' or a 'low degree of commitment' (ibid, p. 21) in response to the examiners. Both studies highlight the subtleties of interpersonal meanings in expert academic discourse. Although the majority of EAP students may not need to participate in such 'elite' events, the studies point to the importance of learners knowing at what stage in an interaction interpersonal meanings need foregrounding. The issue of the foregrounding of interpersonal over ideational meanings at different stages in the DMGs in this study is returned to in Chapters 6 to 10.

Other studies have highlighted the importance of isolated epistemic lexical verbs (for example, *think* or *believe*) as stance markers. Investigating degrees of certainty and doubt, Fortanet Gómez (2004) asked why *I think* is used so often in spoken academic language, and whether its function is politeness, opinion or uncertainty. Analysing (whole) lectures and 'discussion sections' of lectures (which, in having student participation, can be viewed as

[9] Relevant aspects of the APPRAISAL framework as referred to in this study are outlined in Appendix 11 and discussed further in the relevant chapters.

comparable to the seminar), she found that the expression *I think* is used more often in interactive genres. Artiga (2006) also investigated *think,* along with its phraseology and the phraseology of numerous other epistemic lexical verbs such as *not know, seem, suppose, assume and believe*, using data from MICASE. She found that particular grammatical patterns related to the function that these had in the talk. Both of these studies highlight the importance of studying such lexical verbs as stance makers in the context of their function in academic seminar discussion. *I think* and its use and frequency in different stages in the DMGs is discussed in Chapters 5 to 9.

Finally, and from a methodological perspective, numerous studies have demonstrated that corpora can be employed to explore functions in academic talk. Lexicogrammatical markers of the lecture functions of informing, elaborating, evaluating, organizing discourse, interacting and managing have been highlighted (Deroey and Taverniers, 2011). Similarly, particular characteristics have been found to be salient in marking functions in *seminar* talk on the micro level (O'Keeffe and Walsh, 2010). Combining CA with corpus techniques, O'Keeffe and Walsh identified six broad categories of significant multiword units (for example, discourse markers of shared space such as *you know what I mean*) and four pedagogical functions of talk (organizational talk, instructional talk, discursive talk, and argumentative talk) (ibid). Beginning from a qualitative perspective by manually annotating 'pragmatic' features of talk in their corpus of engineering lectures, Alsop, Moreton and Nesi (2013), compared the characteristics of categories such as storytelling across cultures to find differences in the focus of the story (first person or third person) in British and Malaysian engineering lectures. These contributions further highlight the value of using corpora combined with manual techniques and various linguistic theories to investigate functions in academic talk.

In sum, this overview of corpus studies into five areas of spoken academic discourse has shown that academic speech has features that it shares with conversation, but also some that are more like writing, depending on context and the stage in the interaction. Features of talk such as discourse markers are

essential in organising talk as well as expressing different pragmatic functions, and as will be discussed further in Chapter 4, are thus a worthwhile starting point for recognising stage boundaries in the DMGs in this study. Specific personal pronouns as well as certain epistemic lexical verbs have an important role to play depending on context and function. This overview has shown that different elements of language whether interpersonal or ideational are foregrounded in different stages or types of interaction, though none of these studies specifically looked at seminars. Many of the studies began by selecting a limited number of common or already established linguistic items and then investigated these in the corpora, an approach, which, while providing some useful insights into the manifestation of these pre-selected linguistic items, runs the danger of missing crucial contextual and linguistic information. Those studies beginning from a qualitative direction, such as the one described in this thesis, may be better placed to uncover this information.

2.3 Chapter conclusion

Highlighting uncertainty about what takes place in seminars and their effectiveness with regard to their aims, this chapter has outlined what we know about talk in educational settings. Key themes are the power and identity roles at play in a seminar discussion setting, the importance of particular types of talk for learning, and the tutor role in orchestrating this talk. In terms of the structure and language of classroom talk, previous research has led to important insights about the nature of pedagogic discourse, especially when teacher-led, but also the nature of university classroom talk as possessing a mixture of informational and conversational features. Less is known about more interactive university classroom settings and no studies have compared seminar discussion across disciplines. This study, in contrast, aims to investigate similarities and differences in seminar discussion across different disciplines. It is for this purpose that the study also draws on previous studies based on genre work in the field of EAP. The next chapter situates EAP in the SFL and ESP genre traditions and first discusses their two complementary approaches to genre before outlining previous relevant empirical EAP research.

Chapter 3
EAP genre research – ESP and SFL approaches

This chapter positions the present study in the field of EAP genre research, discussing both theoretical background that is crucial to an understanding of the design of the study and levels of analysis as presented in Chapter 4 as well as the body of empirical EAP genre studies which the study draws on and makes a contribution to. First, the chapter discusses the concept of genre as a means of categorising texts with similar functional and linguistic properties. It then introduces the two theoretical approaches to genre used within EAP that were central to the design of the study: the English for Specific Purposes (ESP) approach, following the work of researchers such as Swales (1990) and Bhatia (1993); and the Sydney School, or SFL genre approach, for example, Martin (2008). The two approaches are compared, showing that although they vary in the context in which they were developed and the areas of education in which they have been most influential, they offer complementary approaches to investigating seminar discussions across the disciplines. Key findings from empirical research into EAP which are rooted in genre theory provide an essential backdrop to the thesis and are reported in Section 3.3. Finally, the chapter shows how an SFL genre approach for investigating spoken discourse can be combined with our current knowledge of disciplinary discourse gleaned from both ESP and SFL genre research to investigate the language of seminar discussions.

3.1. A brief history of genre

It is human nature to categorise, and the origins of genre theory in Western culture can be traced to a means of categorising literary works with similar forms or purposes as far back as philosophers such as Aristotle and Plato who recognised genres such as epic, lyric and drama (as noted in Bawarshi & Reiff, 2010). In the 20th century, the Russian literary critic and philosopher of language Bakhtin, suggested that there are also genres in other forms of communication (Bakhtin, Emerson & Holquist, 1986).

Genre continues to provide a powerful means of helping us to understand patterns in communicative life and, as noted by McCarthy, native speakers are able to label different genres: ‘one does not have to be a linguist to recognise a ‘story’ or an ‘argument’ (McCarthy, 1998, p. 26). By having predictable staging and certain features that we expect to see or hear – for example, setting the scene when telling a story – genres ease communication by providing speakers with predictable patterns of language with which to navigate their way through the recurring situations in their culture, without having to think of new ways of communicating in each situation (Eggins & Slade 2005).

Despite, or maybe because of the fact that genre has been a subject of study in so many disciplines and from so many perspectives, there has been much debate over what genre is. As noted by Bawarshi and Reiff (2010), the etymology of the term may help to explain differences in approach. Genre can be traced through the related word gender to the Latin word *genus*, referring to a ‘kind’ or ‘a class of things.’ However, as they note, genre may also be traced to the Latin cognate *gener* (son in law), (ibid., 2010, p. 4), a cognate of *genero,* meaning ‘to create’ (Lewis & Short, 1879). These different origins are reflected in the trends in literary genre theory over the centuries, with some theorists defining genre as a static class or type where genres sort and classify the experiences, events, and actions they represent, thus functioning as merely labels. The second view is that genres are more dynamic, helping to ‘shape, and even generate what they represent in culturally defined ways, therefore playing a critical role in meaning-making’ (Bawarshi & Reiff, 2010, pp. 3-4). It is this second view of genres as dynamic processes, one adopted by researchers working in both SFL and ESP genre theory that is taken in this study. Therefore, while aiming to recognise patterns of meaning making that can be classified in language, the study recognises that the process are dynamic and open to change.

3.2 SFL and ESP approaches to genre in EAP

This study is located in the field of EAP research within the tradition of the London (Firthian) school of Linguistics with its view of language as a social semiotic[10]. This approach can be contrasted with various other approaches to EAP: for example, the rhetorical tradition in US college composition, or the process writing tradition (as described by Wingate and Tribble, 2011). Although others have separated the SFL and Swalesian or ESP perspectives on genre that are described in this chapter, for example, Hyon (1996), in her widely cited state-of-the-art paper, they share several characteristics that can be attributed to their common roots. These similarities are due to the fact that both approaches, stemming from a Firthian social semiotic perspective, view context and linguistic behaviour as important in developing genre descriptions for pedagogic purposes.

> The approach to EAP as taken in this study is influenced by:
>
> … the research and pedagogic practices associated with English for Specific Purposes (ESP) and is rooted in Halliday, McIntosh and Strevens' (1964) ground-breaking work in register analysis and Halliday & Hasan's (1985) later work on genre. An EAP programme in this tradition typically requires thorough accounts of both the communicative context and the linguistic behaviour arising from this context as the starting points for any pedagogic solutions that are developed to meet learners' needs. (Tribble, 2009, p. 401)

This recognition of the commonalities of SFL and ESP genre approaches and their contributions to EAP echoes the view of Paltridge (1996), who argues that despite the varying definitions of genre by researchers such as Swales in ESP and Martin in SFL, an examination of their work shows that they view the concept in largely the same way. EAP research, such as the corpus studies by

[10] Halliday (1979), notes how the phrase 'language as a social semiotic' is intended to suggest an interpretation of language which focusses on language as used to make meanings within a social context. He notes how 'language arises in the life of the individual through an ongoing exchange of **meanings** with significant others. A child creates, first his child tongue, then his mother tongue, in interaction with that little coterie of people who constitute his meaning group. In this sense, language is a product of the **social process**' (Halliday, 1978, p.1, emphasis added).

Biber (for example, 2006) also follow the Firthian tradition and are a natural progression from a tradition that uses authentic data to investigate linguistic behaviour in particular contexts (Wingate and Tribble, 2011).

Their focus on linguistic behaviour and context is important in separating these two linguistic approaches to genre from *non-linguistic* approaches such as the North American New Rhetoric approach, as advocated, for example, by Bazerman (1994), and from the UK Academic Literacies approach drawing on the work of Street (1984) and Heath (1983). As Flowerdew (2002) notes:

> The ESP and Australian school take a linguistic approach, applying theories of functional grammar and discourse and concentrating on the lexicogrammatical and rhetorical realisation of the communicative purposes embodied in a genre. (p. 91)

Those working within a New Rhetoric tradition are less interested in grammar and rhetoric and more on 'the purposes and functions of attitudes, beliefs, values, and behaviours of the members of the discourse communities within which the genres are situated' (Flowerdew, 2002, p. 91). Similarly, an Academic Literacies approach:

> rather than being focussed on close textual analysis…has promoted the need to interrogate and critiques the socio-political processes in which academic texts are situated. (Coffin & Donohue, 2012, p. 1)

Indeed, while the boundaries between different genre traditions 'have become much less sharp' (Swales, 2001, p. 147), with both traditions recognising value in the other, the distinction between approaches that focus on the linguistic, and those that focus on the social aspects of genres is nevertheless a useful one. These non-linguistic approaches to genre have been able to provide equally useful thick descriptions which can facilitate student understanding about expectations in academic events. One example is Flowerdew and Miller (1992), which focuses on student perceptions as well as potential problems and strategies in lectures. However, a further discussion of non-linguistic perspectives on genre is beyond the scope of the thesis.

The ESP and SFL approaches to genre are now compared in terms of their original and current definitions, key audiences and impetus for development. How the two approaches view the notions of purpose, context and generic structure is contrasted. Criticisms of each approach as relevant to the study of seminar discussions are considered, showing that despite apparent contradictions *within* approaches and disparities *between* them, these SFL and ESP approaches to genre are nevertheless complementary. Thus, although the analysis is primarily based on SFL genre theory, and SFL theory is necessarily described in greater detail, ESP genre perspectives are also drawn on in the cross-disciplinary analysis.

3.2.1 Introducing SFL and ESP genre approaches – beginnings and definitions

Genre from an ESP perspective has developed from Swales' seminal work in the 1990s exploring academic genres with the aim of helping non-native speaker graduate students at universities identify and master the texts of their specific academic discourse community. As such, the role played by texts in the discourse community is a central focus of an ESP genre analysis.

In ESP, genre is commonly conceptualised following Swales' original 1990 definition as:

> a class of communicative events, the members of which share some set of communicative purposes. These purposes are recognized by the expert members of the parent discourse community and thereby constitute the rationale for the genre. This rationale shapes the schematic structure of the discourse and influences and constrains choice of content and style. (Swales, 1990, p. 58)

Examples of texts that have been explored in this way are the research article, from which Swales' (1990) CARS model was developed. By establishing the different communicative purposes of the research article introduction, which in turn shapes it rhetorically, Swales was able to define the rhetorical moves which together attain the goal of 'creating a research space'.

Bhatia, another influential genre researcher within ESP, focuses even more clearly on social purpose as a starting point for genre analysis stating:

> Although there are a number of other factors, like content, form, intended audience, medium or channel, that influence the construction of genre, it is primarily characterised by the communicative purpose(s) that it is intended to fulfil. This shared set of communicative purpose(s) shapes the genre and gives it an internal structure. (Bhatia, 1993, p. 13)

These definitions, written nearly a quarter a century ago, have been revisited many times. In particular, difficulties with recognising communicative purpose have been highlighted (for example, Askehave & Swales, 2001). Despite this, the original focus on purpose remains, while recognising that it is more complex than originally thought.

Swales notes that he later came to see genres 'no longer as single—and perhaps separable—communicative resources, but as forming complex networks of various kinds' (Swales, 2004, p. 2). However, he notes that although there was a mistaken emphasis on 'genres as distinct independent entities' (Swales, 2009, p. 5), there was 'little actually wrong with that old earlier characterization' (ibid.). The main changes are in recognising the *complexity* of communicative purpose. Events with seemingly the same communicative purpose have a number of different forms which are actually indicative of the varying purposes according to different cultural contexts. An example given is the dissertation defence, which, in various countries has different purposes, with resulting different rhetorical stages (Swales, 2004).

Similarly, Bhatia (1993, 2002) calls for the recognition of more private purposes of an author as well as just the socially recognised purposes.[11] While stating that there are constraints in the form of genre conventions on what are 'allowable contributions in terms of their intent, positioning, form, and functional value', these constraints 'are often exploited by the expert members of the

[11] In his earlier work, Bhatia focuses specifically on written work – hence the term author – although in later work there is more reference to spoken genres (for example, Bhatia, 2004).

discourse community to achieve private intentions within the framework of socially recognized purpose(s)' (Bhatia, 1993, p. 14). In this and later work Bhatia alludes to the power that mastering genres can afford learners in achieving not only discourse community goals but also their own goals (Bhatia, 2002).

As a result of these problems of identifying multiple purposes, Askehave and Swales conclude that the notion of communicative purpose should be abandoned as a 'quick' means of identifying genres. That is, communicative purpose may not be immediately apparent. The concept however, should be retained as a long-term outcome of the analysis. Askehave and Swales (2001) acknowledge that:

> we are no longer looking at a simple enumerable list or 'set' of communicative purposes, but at a complexly layered one, wherein some purposes are not likely to be officially 'acknowledged' by the institution, even if they may be 'recognized'—particularly in off-record situations—by some of its expert members. (p. 199)

This notion of multiple purposes is important in the context of the seminar discussions where students need to consider simultaneous institutional and interpersonal goals, and will be taken up again in Chapters 9 and 10 with a discussion of how seminar participants achieve these multiple purposes linguistically.

In sum, from its initial emphasis on communicative purpose, ESP genre research has developed so that the analyst should begin with a provisional identification of genre purpose and 'repurpose' the genre, that is, re-examine its status after an in-depth textual analysis amounting to an 'extensive text-in-context inquiry' (Askehave & Swales, 2001, p. 208). Askehave and Swales (2001) suggest two approaches, depending on whether the analyst favours a text first approach or a more ethnographic approach such as that used by Beaufort (2000), Gunnarsson (1997), Swales (1998), and Winsor (2000). In this study, the text first approach is taken, and communicative purposes or the function of the discussion are gleaned from linguistic evidence rather than by

for example, interviewing participants. The study takes account of the different purposes of the discussion as they are realised linguistically and also takes account of discourse community nomenclature with regards to selection of texts for the corpus.

Developing parallel to the ESP work was research on genre around Sydney from the 1980s, with the motivation of making powerful cultural genres visible to underprivileged school pupils; see, for example, Martin (1997) for an overview of research on a project entitled the Disadvantaged Schools Programme, and Feez (2001) for an account of work with adult migrants to Australia. The SFL genre approach, or the Sydney School, drew heavily on Halliday's Systemic Functional Linguistics and specifically on his work *Language as social semiotic* (Halliday, 1978) with its focus on text in context.

The most influential descriptions of genre in terms of pedagogical applications from an SFL perspective were put forward by Martin and Rothery (1986) and Martin (1984, 2008). Genre is commonly defined in SFL following Martin's definition of genre as: 'a staged, goal-oriented, purposeful activity in which speakers engage as members of our culture' (Martin, 1984, p. 25). Like Swales, revisiting his initial definition after some years, in 2008, Martin added the importance of social processes and, working with Rose, characterized genres as: '..staged, goal oriented social processes.' (2008, p. 6). Martin and Rose explain that

> genres are staged, because it usually takes more than one step to reach the goals, they are goal oriented because we feel frustrated if we don't accomplish the final steps, and social refers to how writers shape texts with particular readers in mind (ibid.).

Both of Martin's definitions can be contrasted with Swales' (1990) definition above. Martin's definitions include structure as *part* of the genre, whereas in Swales' definition the aim of the genre *leads* to the structure. The difference in these definitions is borne out in the approaches to genre analysis often taken by researchers in the two fields. Those following ESP approaches

often take the 7 steps for analysis as put forward by Bhatia (1993) of which the first step is:

> identifying a genre within a discourse community and defining the communicative purpose the genre is designed to achieve. (p. 22)

Only after placing the genre in context (step 1), surveying the literature (step 2) and refining the context (step 3), selecting a corpus (step 4) and reviewing the institutional context (step 5) does the analysis move to a textual analysis to investigate a genre's rhetorical moves in the sixth step. The textual and linguistic features that realise these moves are also investigated in this sixth step. The seventh step is to consult an expert in the field. (Bhatia, 1993). So in this approach, the textual analysis is carried out as *part* of the genre analysis.

In an SFL framework, however, the steps of grouping the genres and analysing them are not separated: this is a recursive process, and does not necessarily begin from discourse community nomenclature in the same way that an ESP approach does. This distinction is partly a result of the different genres that the two approaches have been engaged in investigating. Those using ESP approaches have traditionally investigated clearly definable professional academic events, for example, as noted above, the dissertation defence or the research article. Those following an SFL approach, however, have investigated school genres where the boundaries are not immediately recognisable through discourse community names. In fact, one original impetus for the SFL genre pedagogy was the fact that in primary schools, teachers were using the umbrella term 'story' to refer to what were in fact a number of different genres that they expected students to produce, including expositions, narratives or recounts (Martin & Rose, 2008). For example, the recognition of an exposition in school history as one type of essay genre is a result of looking both at the stages in the texts, as well the status of the text as successful or not within a given context (Coffin, 2006). Further reasons for why an SFL approach does not start from discourse community nomenclature are the types of texts it investigates in spoken language, studies which have particular relevance for the present thesis. These are, for example, narratives in conversation, such as

in Eggins and Slade (2005) or Plum (1998) which are also generally not named as such by discourse communities.

The emphasis on structure as important in identifying a genre in an SFL approach is clear in Eggins and Slade's (2005) steps for generic structure analysis of chunks of talk, adapted for use in this study and further detailed in Chapter 4. Step one of the procedure is to recognise a chunk. A chunk, according to Eggins and Slade, can be recognised as a portion of text where one person predominantly takes the floor, and where there seem to be predictable stages. So even in the first step, there is an emphasis on text analysis in order to group the texts and the recognition that the structure is *part* of the genre.[12] The following five steps are (2) to define the social purpose and label the genre, (3) identify and differentiate the stages in the genre (4) specify obligatory and optional stages (5) order the stages and finally, to analyse the semantic and lexicogrammatical patterns for each stage (Eggins and Slade, 2005), clearly showing throughout the procedure that this is a *text-based* approach to genre analysis.

While the definitions of and analysis procedures used in the two approaches to genre vary as to whether or not they include structure as arising from or as part of the genre, both approaches note the difficulty of identifying communicative purpose, or to use the equivalent SFL terms, *social purpose* or *goal.* Martin and Rose note that any text will have multiple goals. It is however, the primary goal of a genre that is reflected in its predictable staging (Martin & Rose, 2008). Hasan (1999) noted that some social situations may have an array of goals, and that goals may be invisible or visible. So in the same way as the ESP tradition has noted problems with identifying purpose, as well as the existence of multiple purposes, so too has SFL.

[12] As will be noted in Chapter 4, further recognition markers for chunks are required when analysing the more interactive DMGs in this study and the framework has been extended for the purposes of this study.

The SFL genre approach has mainly been used to investigate the language of schooling through Australian action research projects, and a strong pedagogy has emerged through these studies, (see for example, Feez & Joyce, 1998; Feez, 2001 and de Silva Joyce & Feez, 2012). The SFL approach has also been used in North American contexts by practitioner researchers such as Schleppegrell (2004; 2012), Mohan (1986) and Mohan and Slater (2006). These North American scholars use the term 'content-based approaches', and focus on the learning of subject knowledge at the same time as learning language. These researchers argue for: 'i) a sense of knowledge as constructed in social processes and ii) the need for a functionally relevant model of discourse for exploring the genres of schooling' (noted in Christie & Unsworth, 2005, p. 235). Such adaptations of the SFL genre model which emphasise the importance of content and integrate language learning with subject learning are highly relevant for a study focussing on language as it used in particular disciplines.

In terms of the pedagogical outcomes of this thesis, the whole-text teaching approach and teaching-learning cycle drawn from SFL genre research is especially relevant. The cycle draws on insights into spoken language development by children in the home by SFL linguists such as Painter (1984, 1998) and shares much with Vygotsky's ideas about children learning with mentors (noted in Christie & Unsworth, 2005, p. 5), often known as 'scaffolding' (following Bruner, 1978). In a genre-based teaching and learning cycle, there are three important phases, reflecting the stages of child language development and the importance of guidance through interaction in the context of shared experience. These phases are, 1. a deconstruction stage (presentation of the target genre); 2. a joint construction stage (co-construction of the target genre with teacher and students); 3. an independent construction stage (independent construction of the genre). At each stage of the process there is an orientation to building up the field, that is, creating a shared understanding of content, and on setting the context (Martin, 2009). The importance of this approach for the outcomes of the present study is that it does not separate language teaching

from the content of the text or its function within a culture. That is, the students engage in *purposeful* activities.

The teaching phases in such an approach are shown in Figure 3.1.

Figure 3.1 Teaching learning cycle for mentoring genre (Martin, 2009, p. 16)

Though of course there is no one *right* way to teach, this approach, with a focus on *meaningful interaction,* rather than around particular grammatical points, allows learners access to powerful genres of schooling and has shown to be successful in various contexts (see for example Macken-Horarik, 2002).

In brief, in comparing the two approaches and the commonly accepted definitions, the following parallel concepts can be highlighted and contrasted, with the differences explaining the different approaches to analysis often taken in the two schools:

Table 3.1 Parallel concepts in ESP and SFL approaches to genre

ESP	SFL
rhetorical moves	stages
communicative purpose	goal orientation, social purpose
focuses on genres that are named as such by a discourse community	illuminating the genres that exist but are often not explicitly named

The next section turns to the notions of context and culture in the approaches. Because of the centrality of the notion of context to SFL, the section dealing with context in SFL genre approaches is necessarily more detailed and introduces the theoretical background that is crucial to understanding where the notion of genre is positioned in relation to context in the present study.

3.2.2 Positioning genre: context of culture and discourse communities

Though the notion of context is integral to both schools, it is conceptualised in different, although not incompatible ways, by ESP and SFL genre theorists. Briefly, both approaches view the acquisition of genres as part of socialisation into a cultural context. However, as will be demonstrated below, the context of culture in SFL takes on an additional broader and more general meaning than it does in ESP. First, how context is viewed in an ESP genre approach is considered, before moving on to address how the broad context of culture and narrower contexts of situation and text in relation to genre are viewed by those working within SFL.

In ESP genre theory, the narrowly-defined discourse community in which a genre is produced is the cultural context of the genre: for example, an academic discourse community reading and writing research articles in a particular discipline would constitute the cultural context. This context is explored as part of the genre analysis. In ESP, this narrow context is often investigated ethnographically. For example, Bhatia (2008) finds it is necessary to investigate professional discourse by asking members of the discourse community about the purpose of a genre.

Another aspect of the narrow context of a discourse community is naming conventions. However, Swales emphasises that discourse community nomenclature, although important, should be approached with caution: 'The genre names inherited and produced by discourse communities and imported by others constitute valuable ethnographic communication, but typically need further validation' (Swales, 1990, p. 58). In other words, although the context of the narrow discourse community provides an important source of information, ultimately the text is the main source of evidence, an approach that is taken here in the analysis of seminar discussions.

In SFL, unlike in ESP, the context of genre has also been conceptualised on a macro level: that is, context is viewed as the broad context of culture. Genres, a result of recurring contexts of situation encoded in text, are seen as shaping that culture. Part of a person's socialisation into the culture is through acquiring the different genres in this culture. In what follows, a brief introduction to how SFL views language, meaning and context is given, in order to position the notion of genre in relation to the context of culture and the contexts of situation, before defining how genre is in this study is viewed as being situated above the level of contexts of situation.

A central tenet of SFL, clearly stated in SFL genre theory and crucial to this thesis, is the inseparability of language from its social context as well as from its function. Halliday explains the inseparability of language from its context and meaning through discussing how children develop language.

> A child learning language is at the same time learning other things through language – building up picture of the reality that is around him and inside him. In this process, which is also a social process, the construal of reality is inseparable from the construal of the semantic system in which the reality is encoded. (Halliday, 1978, p. 1)

From an early age then, we learn our language because of the imperative to do things with language: language is inseparable from our social context. As language teachers can testify, being able to relate classroom activities to tasks that learners need to deal with in the real world can be a strong motivator.

Because social context and language in use are inextricably linked, SFL does not separate the realisation of a text, for example, the actual wordings of which the text is made up, from the social context in which it is used.

In considering the social context of language, there are three elements of situation which can be recognised as encoded in text. These three elements, also termed *register variables,* are field, tenor and mode (for example, Halliday & Matthiessen, 2004). The terms field, tenor and mode can briefly be glossed as follows: field refers to 'what is being talked or written about' (that is, the subject); tenor refers to 'the relationship between the speaker and hearer (or, of course reader and writer)'; and mode refers to 'the kind of text that is being made' (where it lies on the spoken/ written continuum) (definitions taken from Butt, Fahey, Feez, Spinks, and Yallop, 2000, p.5).

Figure 3.2 shows these elements of context of situation as they are encoded in text through the three metafunctions (explained below).

Figure 3.2 Context of situation in relation to metafunctions in text

(Martin and Rose, 2008, p.12)

The contextual factors shown in the outer ring above 'affect our language choices precisely because they reflect the three main functions of language' (Butt et. al, 2000, p.5). As shown in Figure 3.2, these three main functions of language are known in SFL as the ideational, the interpersonal and the textual metafunctions. Briefly, the metafunctions encode the following functions of language: the ideational metafunction uses language to construe experience

(further divided into experiential and logical functions); the interpersonal metafunction uses language to construe interaction as well as a speaker's commitment to a proposition, ideas about obligation and inclination, and to express attitudes. Finally, these experiential, logical and interpersonal meanings are organised into a coherent whole through language as encoded in the textual metafunction (see Butt et. al, 2000, pp.5-6 for a more detailed explanation of the three metafunctions of language).

To exemplify contexts of situation and how they are encoded in the three metafunctions in a spoken text genre, we can use the simple example of buying a coffee from a corner café (as noted by Eggins, 2004). In this example of a service transaction, in terms of the register variables, the field is buying coffee, the tenor is the relationship of customer to provider, and the mode is face to face spoken interaction. Patterns of language in this genre could be borne out in field through lexical items related to coffee, for example, *latte* or *milk*; in tenor in the request- compliance sequence of turns, for example, *could I please have*, and in mode through language markers of co-presence, for example, *here you go*.

Genre is a result of how the register variables of field, tenor and mode or the parameters of context of situation are recurrently mapped onto each other in a given culture (Martin and Rose, 2008). These recurring patterns are played out in the text through the three metafunctions in language as noted above. A particular co-occurrence of register variables is visible in patterns in the realisation of meaning through language as encoded in the three metafunctions and can be seen, for example, in the generic staging and the lexicogrammatical patterns in a text. The reoccurring patterns in context and text lead to recognisable genres. In exploring the DMGs in the seminar discussions it is thus important to investigate each of the three metafunctions of language.

The importance of gaining control of the repertoire of genres that make up one's culture is emphasised by SFL genre theorists. Martin and Rose, following Bernstein's theory of socio-semantic codes (Bernstein, 1971, 1996),

discuss ‘mapping cultures’ from a semiotic perspective using the concept of families of genres. They note how

> cultures seem to involve a large but potentially definable set of genres, that are recognisable to members of a culture, rather than an unpredictable jungle of social situations (Martin & Rose, 2008, p. 17).

It is important to recognise differences between contexts – with maturity, as members of a culture we gain control over genres, learning to distinguish between different types of context, and learning to ‘(m)anage our interactions, apply our experiences and organise our discourse effectively within each context’ (ibid., p.18). We gain control over the genres of everyday life through ‘accumulated experience’ including ‘more or less explicit instruction from others’ (ibid.).

SFL studies of both written genres in the context of schooling (both general and more disciplinary specific genres), as well as spoken genres in various contexts, are relevant for the present thesis. In terms of the genres of schooling, the genres recognised are often those that could occur across the culture, such as narratives or recounts, as well as in school subjects. However, despite this conceptualisation of genres making up a culture on the macro level, SFL genre analysts, as shown by Coffin (2006) and Donohue (2012), have used the theory to explore texts specific to a specialised disciplinary context in a way that is particularly relevant for the comparison of discussions across disciplines. Indeed, the richness of SFL theory has enabled researchers to define genres in the context of culture in both the broad and narrow senses (these empirical studies are discussed in Section 3.3).

Because there has been some contention among SFL theorists about where to ‘map’ genre amongst the various levels of language making up the language system, discussions from the SFL literature relating to this area are briefly presented here, before positioning the notion of genre as used in this study at the level of culture.

Figure 3.3 shows the levels of contexts as envisaged by Halliday, the context of culture, the contexts of situation or register variables, and the text in context.

Figure 3.3 Context and language in the systemic functional model

(Martin & Rose, 2008, p. 10)

Halliday (1989) treats genre as an aspect of mode, that is, as part of the context of situation, while according to Martin and Rose (2008, p. 16), Hasan (1985) 'derived her obligatory elements of text structure from field and so appeared to handle genre relations there' (these obligatory elements are discussed in more detail below). However each genre includes a particular configuration of register

variables, so it cannot be a part of any one register variable on its own (Martin & Rose, 2008). As argued by Martin and Rose, genre and register can vary independently, and so it is more logical to model genre at the higher level of culture. In their work in educational linguistics, Martin and Rose thus added genre as a stratum beyond register (ibid). This model, as indicated in Figure 3.4, is the view of genre adopted here.

Figure 3.4 Genre as an additional stratum of analysis beyond tenor, field and mode

(Martin & Rose, 2008, p. 17)

The above model, mapping genre at the level of culture, above the level of contexts of situation (field, tenor and mode) allows the recurrent configurations

of these register variables within a particular genre to be explored from the perspective of the three metafunctions of language (Martin & Rose, 2008). The positioning of genre at the level of culture rather than under one of the three register variables is particularly important for the present thesis, which aims to explore the different types of meaning that seminar participants make within a given DMG.

The above section has shown how context is viewed under the ESP and SFL approaches to genre and has shown that while it is a central notion in both schools, SFL studies have tended to account for context more broadly, accounting for context of culture as well as for contexts of situation.

3.2.3 Generic staging

As well as acknowledging the importance of context, both the ESP and SFL approaches to genre recognise that genres have a recognisable organisation. This organisation is often termed *rhetorical structure* (for example Swales, 1990), and *generic staging* or *schematic structure* (e.g. Ventola, 1987; Eggins, 2004; Martin & Rose, 2008) respectively by the two schools. While both schools recognise that there will be prototypical exemplars of a genre in terms of its organisation, they also note that there can be variation. In what follows views of the linguistic structure from the two schools will be detailed, that is, the *rhetorical moves,* or the *generic stages*, with particular emphasis on the structure of spoken genres in SFL as relevant to the analysis of seminar discussions.

From an ESP viewpoint, Swales (1990, p. 58) notes that:

> … exemplars of a genre exhibit various patterns of similarity in terms of structure, style, content and intended audience. If all high probability expectations are realized, the exemplar will be viewed as prototypical by the parent discourse community.

The structure noted above is borne out in rhetorical moves, defined as ‘semantic units’ related to a writer’s communicative goals (Swales, 1981). However, as noted above, while there are exemplars of a genre which may be

viewed as prototypical, there are those which are less so in terms of their structure.

In contrast to ESP, which looked initially at written genres, in SFL researchers originally dealt with spoken genres. Because these are relevant for the present study, the discussion of staging in SFL genre theory will be limited to studies of spoken discourse. Over the years, SFL genre theory has developed to account for the dynamicity of spoken discourse. Mitchell (1957), in an early study of structure in interaction, put forward a structure of market auctions and market transactions in Libya, using the caret symbol (^) to show the sequence of the stages. Mitchell's schema is relatively inflexible, perhaps reflecting the nature of the transactions analysed in this original study as well as the fact that this is a very early study.

Hasan added to the flexibility of Mitchell's schema, introducing the idea of generic structure potential or GSP, with obligatory and optional elements found in nursery rhymes (Hasan, 1984) and later as shown below, in service encounters:

> [(Greeting) (Sale initiation)] ^ [(Sale Enquiry) {Sale Request ^ Sale Compliance} ^ Sale] ^ Purchase ^ Purchase Closure ^ (Finis)
>
> (Hasan, 1985, p. 4)

The increased flexibility of the notation above is shown by the addition of different kinds of stages marked through the use of the following symbols: ( ) parentheses for optional stages; { } brackets for recursive stages: and [ ] square brackets for recursive elements (which can include a number of stages).

Ventola (1987), working on the organisation of service encounters, criticised Hasan's model as being too linear. She provides a flowchart model which can account for breakdowns in communication, and is dynamic rather than static, representing an ongoing process. This dynamic view of the structure of genres is echoed in the approaches used by SF linguists today and helps to show how system (which is paradigmatic, representing relationships

between available choices) is foregrounded over structure (the syntagmatic, or sequential relations in a text). That is, the view emphasises the potential choices available for making meaning. SFL theorists view that ‘structure is derived from system – syntagmatic relations are modelled as the consequence of paradigmatic choice’ (Martin and Rose, 2008, p. 23). In other words, the recurring choices that we make in language of what we decide to say over what we could have said as a result of context lead to predictable generic staging.

Martin and Rose (2008), emphasizing the idea of systems in SFL and foregrounding the organisation of language as providing *options* for making meaning, return to Mitchell’s (1957) analysis to present it as a system network, omitting how the elements are sequenced.

Figure 3.5 System network diagram for Mitchell’s analysis

(Martin & Rose, 2008, p. 23)

The above diagram uses system conventions of small arrows from left to right and right facing brackets to indicate choices in genre. The structural elements of the genre are then shown: a + sign indicates that a stage is present, and stages in parenthesis are optional. It is in fact the simplicity of the notation above that highlights the flexibility of genre staging and one that is adapted for use in this study (see Chapter 4).

The various notation systems shown above demonstrate that when considering the organisation of a text in an SFL approach, as with an ESP genre approach, we need to consider a text's *goal* or, as it is also known in SFL terms, its social purpose. This is because, it is in functional rather than grammatical terms that the stages within genres are identified within SFL. We can say that functional refers to the role that language plays in a particular context and that language is organised in a particular way because of its function: for example, the function of buying or selling in the transactional encounter mentioned above. As Martin and Rose (2008, p. 22) note: '[e]ach feature in a system is realised as some kind of structure or "syntagm"'. The units of syntagmatic structure which result from the paradigmatic choices can be given functional labels to describe the contribution they make to the structure as a whole.

So when functional linguists think about a text's step-by-step organisation, or its *generic staging*, this is done in terms of function, that is, the function served by (each stage) of a text in a particular context. Eggins notes how 'empty labels' like beginning, middle and end, or introduction, should be avoided, as all genres have beginnings, middles and ends. Instead, she notes that is important to ask what is being done in each stage (Eggins & Slade, 2005, p. 233). This point is returned to in Chapter 4 when I explain how the stages in the DMGs are identified and named.

3.2.4 Criticisms

Before moving on to summarise similarities and differences between the two approaches and define the concept of genre as used here, criticisms levelled against both schools are now considered.

Of early criticisms of both SFL and ESP genre approaches, one broad category was the view that a genre pedagogy is too prescriptive and limits creativity. For example, Pennycook (1997) argued that such a 'vulgar pragmatism' risks perpetuating unequal power relations. Likewise, Benesh (1993) claimed that by teaching the acceptance of such powerful discourses, the academic discourses of power are reproduced. Responding to such criticisms, proponents of both genre approaches in EAP have underlined the importance of elucidating the discourses of power to make them accessible to all (for example, Allison, 1996). In fact both ESP and SFL approaches are motivated by the fact that it is in *not* elucidating the genres of power that those without access to the valued genres of schooling are most at risk. SFL genre theory was developed for disadvantaged school children and made visible a pedagogy that would allow them to succeed, even if the genres of home were very different from the genres of schooling. Likewise, ESP approaches were developed as a means of helping 'marginalised' NNS to succeed. Far from perpetuating unequal power relations, or stifling creativity, theorists and practitioners from both schools have made room in the intervening years for more critical approaches and encouraging learners to be creative with and manipulate the genres they have mastered (for example, Christie, 1987; Bhatia, 2004; 2008).

From a theoretical point of view and potentially a more serious charge, SFL has also been criticised for conflating 'text type' and genres. Text type, critics argue, refers to the categorisation of texts according to co-occurrence of linguistic patterns while genre refers to activity types such as sermons or songs occurring with regularity in society (Dudley-Evans 1989, Paltridge, 1996). SFL conflates these two notions, it is argued, through viewing the organisation of a genre as indicative of its existence rather than as secondary to the

communicative purpose. Paltridge (1996) notes that the same text type may occur in different genres so the distinction is important. For example, student assignments and news items – genres – may both be in the form of a recount, which Paltridge considers a text type, but which SFL researchers have named a genre. Or, in relation to this thesis, the Problem Solving DMG identified could be viewed as a text type.

However, for researchers in SFL the distinction between text type and genre is not necessary. This is because, as noted by Bawarshi and Reiff '(p)rimary and secondary school students are not often, if ever, asked to write in what would be considered disciplinary or professional genres' (2010, p. 52). For this reason SFL theorists work with explanations, recounts or descriptions, often terming these genres (for example, Coffin, 2006; Martin & Rose, 2008). While ESP researchers may term them 'pre genres' (Swales, 1990). For those working in SFL school pedagogy, these are then the genres that the pupils encounter, although for ESP teachers working with advanced students, whose disciplines and professional settings are

> more bounded and where the genres used within those contexts are more identifiable, the analytical and pedagogical focus has been on actual, community—identified genres used within those disciplinary settings—genres such as research articles, literature reviews, conference abstracts. (Bawarshi & Reiff, 2010, p. 44)

So while SFL genre approaches have been accused of conflating genre and text type, it is in fact the motivations of the pedagogy that leads to the categorisation as genres of what others might view as text types.

With such disputes about what constitutes a genre, not just between schools but also within them, it is necessary specify how the term is used in the context of this study. As noted above, genre in this study is seen as a

> staged, goal-oriented, social process in which speakers engage as members of our culture (Martin, 1984, p. 25).

How exactly the concept of genre is used in relation to the seminar discussions and in order to identify ‘DMGs’ is described in detail in Chapter 4.

3.2.5 Summary of ESP and SFL approaches to genre

A summary of the similarities and differences between the two approaches to genre is given in Table 3.2.

Table 3.2 Summary of approaches to genre

	ESP	SFL
Motivations	To create a visible pedagogy	To create a visible pedagogy
Main audience	NNS in universities in US and UK	'Disadvantaged' school-aged children in Australia
Purpose	Communicative purpose - complex, often multiple purposes - dynamic nature of genres	Social purpose - social situations have various goals: invisible and visible (Hasan, 1999) - dynamic nature of genres
Context	Defined in relation to discourse community	Defined at macro level: genre is located at context of culture
Organisation	Investigated as a result of communicative purpose (originally top down investigations, now more recursive)	Cannot be separated from genre (recursive investigation)
Criticisms	'pedagogy of accommodation' (Benesh, 1993) Prescriptiveness	Prescriptiveness Conflation of genres and text types
Countering criticisms	Students need to know a genre in order to be able to be creative with it (for example, Bhatia, 2004)	Christie (1987, p. 30) 'learning the genres of one's culture is both part of entering into it with understanding, and part of developing the necessary ability to change it.' 'pre-genres' of schooling

This chapter has shown that SFL and ESP approaches to genre are complementary in terms of their aims and theory and contributions to EAP. The view of genre adopted here draws on both ESP and SFL perspectives in viewing social purpose as central to a genre. It draws on the Swalesian notion of discourse community nomenclature. In doing this, it uses data that departments have classified as seminars within their own academic communities. However, in addition, an SFL approach to recognising the social purpose of the discussions is taken. This approach allows the analysis to be recursive, and for the DMGs to emerge from the analysis. Recognising the insight from both schools that genres can have multiple purposes, this analysis identifies the central disciplinary purposes of sections of discussion (as defined in Section 1.2) beyond the pedagogic purpose. It also takes into account the interpersonal or 'invisible' intentions that students may have, as realised through interpersonal elements of language. The SFL approach as it has been used to identify genres in spoken discourse is further drawn on. These issues are discussed further in Chapter 4.

3.3 Empirical research on EAP

Having provided necessary theoretical background to studies in EAP from both ESP and SFL genre perspectives, this section locates the present thesis within the field of empirical EAP research and highlights relevant findings from previous work on disciplinary discourses and spoken academic discourse that influenced the design of the study.

3.3.1 Disciplinary discourses

Initially descriptions of EAP for pedagogical purposes provided general recommendations and it was assumed that academic discourse communities were monolithic and homogenous (Hyland, 2004; 2012). Research now takes disciplinary

differences into account. This section specifically concentrates on research into text types within or across disciplines.

3.3.2 Genre and organisation

The studies on genre and organisation that seem to parallel the three main DMGs in the corpus (Debating, Responding and Problem Solving) are noted here (and in detail in Chapters 6-8).

SFL genre perspectives on 'argumentative' essays or other forms of argument such as online discussions have shown the importance of such genres in various subjects as well highlighting elements of their linguistic form and areas where students are perceived to struggle. While it is not known how far such findings can be transposed to spoken genres, the studies provide a backdrop to the analysis of the Debating DMG discussed in Chapter 6, as they are genres where the main communicative goal is to persuade an audience of a particular view.

In terms of written argument genres, Coffin (2006) notes how historical argument genres are crucial for success in secondary school history. She includes three sub-genres under argument genres: the exposition (arguing for a particular viewpoint); the discussion (considering different viewpoints before reaching a position); and the challenge (arguing against particular viewpoint). Coffin (ibid.) puts forward a number of stages for each of the argument genres. Such studies also highlight that focusing on the linguistic expression of the stages can provide useful insights in terms of teaching the linguistic expression of argument genres (for example, Hewings, Coffin & North, 2007, Coffin & O'Halloran, 2009).

Also particularly relevant for the present study are investigations of emerging interactive argument genres used in teaching, such as online discussion forums and weblogs. These studies show that a different mode produces different linguistic structures and they often perceive students as 'lacking' in their ability to participate in

interactive argument. Coffin & O'Halloran (2009) and Coffin, Hewings, and North (2012) found a prominence of *I think* in expressing opinions (which likens online argument more to casual conversation than to academic writing), but also that students rarely put forward counter arguments, something that they found was a result of the students' lack of skill in participating in academic argument. Argumentation in educational contexts varies considerably in its form in relation to its purpose, in the roles and relationships of the participants, as well as in its mode (Coffin and O'Halloran, 2009), which points to the viability and usefulness of similar analyses of seminar discussion to build on this previous research.

A key methodological insight that these studies on interactive argument genres have provided is to show how it can be useful to combine an SFL genre approach with an exchange structure analysis to allow the examination of dialogic discourse on the micro level (as in Hewings, Coffin and North, 2007; Coffin & O'Halloran, 2009). The studies noted above develop their analytical framework from Sinclair and Coulthard's (1975) IRF framework as first discussed in Section 2.2.3. This approach adds a third, interactive level to a genre analysis (in addition to genres and stages) which is critical in investigating interactive discourse.

For the third level of analysis in this study, a similar methodological approach is taken – specifically, Halliday's model of dialogue as suggested by Eggins and Slade (2005) is employed. Briefly, this model recognises that any interaction is a 'process of exchange' involving both a commodity to be exchanged (information or goods and services) as well as the two major speech roles associated with exchange relations – giving or demanding. These two speech roles, it is argued, lie behind any other speech roles that can be recognised (Halliday and Matthiessen, 2004). In their giving and demanding speech roles in the seminar discussion corpus, the interactants are concerned with exchanging information. Different speech roles will typically be realised through particular speech functions (for example, a statement used for eliciting information) with congruent and incongruent realisations of each (Halliday

and Matthiessen, 2004). As noted by Eggins and Slade (2005), the position of tutor gives access to the full range of initiating speech functions while students are more constrained in initiation choices. Importantly for this study, the approach is able to handle dynamic patterns of exchange as well as the co-construction of stages. This third, interactive level of the genre analysis is termed 'move' in this study and is discussed further in Section 4.3.

As well as those studies investigating argument genres, other studies can be compared to the Responding DMG present in the current corpus in that they involve responses to an artwork or events. A common theme of this research is the comparison of language used to describe the physical with language used to describe the symbolic or abstract ideas. Donohue (2012), for example, investigated *mise-en-scène* essays in film studies to find differences in how successful or less successful student writers were able to cope with demands of grammatical metaphor in interpreting films, as opposed to merely describing them. Much of the Responding DMG in the corpus comes from the subject of Art History. Swales, writing of art historical discourse notes that it 'has so far proved recalcitrant in revealing its secrets' (Swales, 2009, p. 15). He further notes that 'there are puzzling relationships between the verbal and visual, and between banal ostensive reference to some feature in the art object and highly allusive and symbolic commentary' (Swales, 2009, p. 15). These relationships between the verbal and the physical and the symbolic commentary and exactly how they are played out in art history and other similar texts have received little attention to date. An exception here is Tucker (2003), who, combining Swales' rhetorical genre analysis with SFL theory, writes of how Art History research articles show a strong interdependence between description (a verbal characterisation of an artwork) and evoked evaluation (rather than more explicit modalisation or affect) which explains the artwork. This interdependence is marked grammatically by the

alternation of different process types[13] (ibid.). The issues of grammatical metaphor, evaluative language and the different process types used in various stages of the Responding DMG are discussed in Chapter 7.

There are a number of EAP genre studies which parallel the third main DMG in the corpus, Problem Solving (discussed in Chapter 8) and demonstrate useful language patterns in *written* problem solving texts as well as flagging possible problematic areas for learners. Flowerdew (2003), investigating texts with a problem-solution patterning (following Hoey, 1983) in a corpus of student and professional engineering texts, found certain indicators of the problem-solution text and differences between student and professional writing. These differences included the fact that the student texts overused *inscribed* meanings in the problem-solution pattern instead of using the more implicit causative verbs such as 'alleviate', 'minimise' + problem (Flowerdew, 2003). She notes the lack of lexical knowledge on the part of the student writers in her corpus and the importance of teaching such implicit evaluation (ibid.). Others have investigated problem-solution patterning in Law problem essays, the most notable using Bhatia and colleagues' IRAC patterning (issue, rule, method, conclusion), a variation on the problem-solution pattern that is now often taught to Law EAP students (Candlin, Bhatia, Jensen & Langton, 2002).

Although falling outside the field of EAP, spoken discourse in business English has also been investigated in terms of problem-solution patterning. These studies help to show how transferable the patterns in the above studies are to spoken discourse, but also note other indicators of the problem-solution pattern in the spoken mode. For example, the stage of negotiating 'ownership' of a problem is important in a spoken context (Angouri & Bargiela-Chiappini, 2011). Koester, investigating her corpus of workplace discourse, found that decision-making conversations follow a

[13] Process types are one of the experiential structural elements of a clause construing processes of happening, doing, sensing, saying, being or having that unfold through time and realised through the verbal group. See Appendix 8 for an explanation and exemplification of process types in SFL theory.

problem-solution pattern (Koester, 2006, 2010b). Investigating conversations centered around problem-solving in workplace discourse has also revealed a number of useful linguistic items for teaching such as: (deontic) modal verbs in different stages (Handford, 2010); the pronoun *we* as a top keyword (ibid) and the use of metaphors and idioms to express evaluative meanings (Koester, 2011). These studies highlight the fact that while there are certain aspects of the problem-solving pattern in non-academic spoken discourse that are similar to patterns found in written texts (Hoey, 1983), there are also differences.

3.3.3 Writing across disciplines

Another set of contributions support the view that EAP is not homogenous and that teaching needs to be differentiated according to subject (see for example, Gardner & Holmes, 2010; Gardner, 2012; Nesi & Gardner, 2012). Differences are found across disciplines in terms not only of the macro structure of texts, but also of the individual linguistic manifestation of the texts on a micro level. One major project investigating disciplinary discourses identified 13 broad genre families in the BAWE corpus of assessed student writing, including essays, empathy writing, critiques and problem questions. They noted the distribution of these genre families across disciplines and the differences in the linguistic manifestation of the genres (Nesi & Gardner, 2012). Benefits of combining SFL genre and corpus techniques in the investigation of disciplinary discourses were also shown in this study. Relevant micro findings from the study are discussed in Chapters 6 to 8.

This brief overview of research into EAP drawing on ESP and SFL genre research has shown that investigating disciplinary discourses and also comparing functions and language across disciplines is a worthwhile exercise for pedagogical purposes and can help to make opaque social practices more interpretable for learners. It has shown that genres of particular disciplines are not ‘learned by osmosis’ but need to be taught. While there is potential to investigate spoken

discourse in the same way, up to now generic differences in spoken discourse have not received as much attention as those in written texts. Work that has focussed on spoken or other dialogic academic discourse (that is, online discussion) is now considered, demonstrating the need for parallel comparative genre work to be conducted on spoken academic seminar discussion.

Spoken genres that have been investigated include research presentations, the peer seminar and lectures. In two early examples of such research, Dubois (1981) put forward a three-part structure, including listener orientation, at both the first and final sections a research presentation, as well as noting the importance of multimodality[14] in Biology presentations (Dubois, 1980). Aguilar (2004) identified teachable commonalities in moves within the peer seminar as a genre. She explored four peer research seminars from a Swalesian genre perspective to conclude that

> the seminar has mixed features from the conference presentation, the lecture, and the written RA. It seems to be a hybrid research genre, an “indefinite and transitional text” which could also be named an “intergenre”. (Aguilar, 2004, p. 70).

Thompson (1994) used a genre-based approach to identify the structure of lecture introductions with the purpose of helping NNS lecture participants to better understand lectures. Yakoob (2014), also investigating lecture introductions from a genre perspective, found disciplinary variations in the BASE lecture corpus. Researchers who have looked at the university or research or classroom seminar as a genre include Weissberg (1993), who concluded that the research seminar presentation is an independent genre and not merely an oral replication of the research paper, and Basturkmen (1995), who identified subgenres of seminar discussion: discussion following a presentation by an outside speaker; discussion following presentation by students; and non-presentation tutorial discussion. These

[14] Multimodality can be defined as the use of more than one semiotic mode to make meaning (Baldry & Thibault, 2006) and is discussed in further detail in chapters 6-9.

studies all show the potential of using a genre-based approach to investigating spoken academic discourse, although none have specifically considered disciplinary differences in discussions using a genre approach.

3.4 The gap between current EAP materials and reality

The findings from research into spoken EAP outlined above and into classroom interaction as noted in Chapter 2, support research pointing to differences between spoken and written language generally (Halliday, 1989). However, the teaching of spoken language in the classroom is still largely based on 'idealised' spoken texts which resemble written language more than natural spoken language of talk. This can lead to learners producing unnatural and 'textbook-like' speech (Goh, 2009; Goh & Burns, 2012). These idealised texts are often in the form of scripted dialogue created specifically for the language classroom developed from writers' intuitions about spoken interaction. While scripted dialogue can be targeted at learners and may be useful, especially for teaching lower levels, as noted by Burns, these scripted dialogues 'rarely reflect the unpredictability, the dynamism or the linguistic features and structures of natural spoken discourse' (Burns, 2013, p. 124). Critically, they do not always pay overt attention to the process of learning *about* speaking, something which is crucial in order to develop student's metacognitive awareness in speaking skills (Goh & Burns, 2012).

Little wonder, then, that when students are confronted by the realities of seminar discussion, they may be unsure how to participate. For many, the safest option can be to remain silent. As noted by Murphy (2006), NNS at universities often rely on NS peers to interact with tutors and monitor and listen to exchanges rather than contributing themselves. Another option is to do what they have been taught to do in their speaking skills classes if any – agree or disagree (see Appendix 14 for examples of current EAP and seminar skills 'useful language') – but these functions are really 'empty containers', and despite insights into spoken seminar discussion

gained from EAP research, there still seems to be a separation of the content from the language of discussion. That speaking needs to receive more of a focus in EAP courses is clear, but the problem is not only how much speaking is covered, but what is covered. Those textbooks that do include a component on speaking skills tend to focus on the idea of discussion as debate, with students needing to put forward and agree or disagree with opinions and as yet, there has been little attention paid to disciplinary differences in the nature of discussion and into the different genres of discussion. The current study aims to take some initial steps towards filling these gaps.

3.5 Chapter conclusion

The chapter has shown that research based on the investigation of functions of discourse as used in EAP following an SFL/ ESP genre tradition is useful for making explicit to learners the potentially opaque social practices of an academic discourse community. There is a large amount of research on disciplinary writing in an HE context that has usefully investigated the central functions, as well as the macro and micro structures of discourse in or across disciplines, but there appears to be no work that explores seminar discussion integrating meaning and language in this way. This is despite the fact that there are indications from research into online discussion or talk in other contexts that this would be a worthwhile endeavour. The overview has also shown how the notion of identifying chunks in talk is a viable means of investigating seminar discussions. What is needed, this thesis argues, is a study based on a model of seminar discussion that links meaning and language structure on a macro as well as a micro level. This will allow language patterns to emerge, on the levels of DMGs, stages and the interactional units of moves, making visible to learners what it is they are supposed to be doing in seminars, and making available to them the language resources which will enable them to do this.

The next chapter discusses the research design.

Chapter 4
Research Design

As outlined in the preceding chapters, this study is an exploration of the spoken language of academic seminar discussions across the disciplines in the UK HE context. The present chapter describes the research design. In answering the research questions, I proceed from a relativist, social constructionist view (in the tradition of Berger and Luckmann, 1991). As such I view that realities are socially constructed by communities through language and that an individual's learning takes place through interaction in a group.

The first section of this chapter outlines theoretical considerations in the research design. It discusses the relativist approach to research taken and the decision to use a QUAL→quant mixed methods approach. The importance of context is stressed, both in terms of my role as a researcher and in terms of how I view language. The appropriateness of the theory of language that aligns with social constructionist views of knowledge and learning – Hallidayan Systemic Functional Linguistics – and that underpins the study in terms of analysing and interpreting the data is considered. How a corpus-based SFL genre study fits into the overall approach is discussed.

Section 4.2 deals with the data used in the project and introduces UAM Corpus Tool (UAM CT), the software used for annotation and analysis. This section details the data set and the corpus building criteria observed. Limitations with the data are considered and relevant ethical issues are discussed.

Section 4.3 deals on practical level with data analysis. Here I discuss how the SFL approach to genre analysis in spoken language (first outlined in Chapter 3) is adapted and employed to identify the DMGs, and their stages and moves, and to explore the linguistic features of the DMGs on the micro level. The particular analytical tools from SFL employed in the data exploration on the micro level are

specified. Corpus techniques used in this exploration of data are detailed along with the features of UAM CT used. Measures for ensuring reliability of data analysis and limitations of the analysis procedures are also considered here.

Firstly, for ease of reference, the research questions are reiterated as they will be referred to through the course of this chapter. I started with the following general research question formulated in order to answer my professional needs:

1. What are the characteristics of seminar discussions across the disciplines?

In order to investigate this, the following sub-questions were investigated:

2. Which DMGs are used by participants in academic seminar discussions drawn from the BASE corpus of seminars, recorded at two British universities?
3. What is the distribution of DMGs across the disciplines in the corpus?
4. What stages comprise each DMG?
5. What are the key language features of the stages in the DMGs?
6. How are the DMGs manifested similarly or differently across the disciplines within the corpus?

The broad approach to research taken in this study is now discussed.

4.1 Approach to research

This section outlines the relativist approach to research taken, stressing the importance of context in this dominantly qualitative study. How a corpus-based SFL study fits into this framework and view of research is also considered. Finally, the theoretical construct of a DMG in relation to the system of language is explained and exemplified.

4.1.1 Importance of context

In stressing the importance of context of research, the ontological standpoint adopted can be said to be relativist: I accept that there is not a single way of understanding something, but that 'there are various realities created by different individuals and groups at different times in different circumstances' (Richards, 2003, p. 34). In accepting that knowledge is something created through interaction between the world and the individual, my interpretation of what I 'know' about the data is a result of my own interaction with the data, and with the world.

Just as context is integral to the outcome of the research, context is integral to language. So while the aim of this thesis is to explore the discourse of seminar discussions across disciplines in higher education in the UK setting, and although features of the seminar discussions may be used for teaching purposes, this thesis does not suggest that the sample used here represents a single reality of the language of seminars, but rather that language is probabilistic and not 'always this and never that' (Halliday, 2002, p. 49). In accordance with this viewpoint, just as the same conditions can never be recreated exactly, the language produced will not be exactly the same in different contexts. Despite this, similar contexts and similar institutional settings do lead to certain ways of making meaning with language. It is the predictable patterns that will enable students to gain access to the academic discourse community of their choice that are elucidated here.

4.1.2 A QUAL→ quant mixed methods approach

In line with the worldview outlined above, an approach to research methods was chosen that allows a close exploration of instances of language in their immediate context while also relating this to the system of language. Methods are thus both qualitative and quantitative in nature – specifically, this study takes a qualitative dominant mixed methods approach, or, following Creswell (2009) a QUAL → quant approach in terms of dominant methods and directionality (that is, beginning with

qualitative steps). In line with Creswell's (2003) description of mixed methods research, this study uses procedures which are both emerging and predetermined; it asks both open-ended and closed-ended questions and it uses both manual and statistical text analysis.

This approach follows Johnson, Onwuegbuzie and Turner's (2007) view that a qualitative dominant mixed methods research is:

> the type of mixed research in which one relies on a qualitative, constructivist-poststructuralist-critical view of the research process, while concurrently recognizing that the addition of quantitative data and approaches are likely to benefit most research projects. (p. 124)

Where the research steps fit in to the mixed methods approach is shown in Table 4.1.

Table 4.1 Summary of quantitative and qualitative steps used

Research steps	Qualitative	Quantitative
1. Data selection		
1.1 Choice of corpus	X	
1.2 Delineating 'phases'[15]	X	
1.3 Selecting seminars	X	X
2. Data analysis		
2.1 Identifying DMGs in the discussion phases	X	
2.2 Noting key language patterns in the DMGs	X	X
2.3 Comparing semantic and lexicogrammatical patterns of DMGs across the disciplines	X	X
2.4 Comparing distribution of DMGs across the disciplines		X

As noted in Table 4.1, both the data selection and the data analysis processes comprised of qualitative and quantitative steps (explained in more detail in Section 4.3). A combination of inductive and deductive techniques was used and the steps

[15] The delineation of phases (into for example, discussion or presentation) was a relatively swift procedure carried out before the selection of seminars in order to determine which seminars had a sufficient amount of discussion to be included in the corpus. This qualitative step involved watching all the seminars, along with the transcripts in order to gain an overview of content. Notes were made based on the content of the seminars in relation to previous literature in terms of opening and closing of activities or language signalling the structure of classroom talk(for example, Sinclair and Coulthard 1975; Sinclair, 1992; Deroey, 2012). After repeated examination of the files in this way, and comparison of activity phases of the seminars that seemed to be similar, phases were compared - for example a presentation or discussion phase. Discussion phases were identified as those stretches of seminar where the tutor or other seminar participant has signalled that students are expected to participate in the on-going talk.

were recursive, not always following the order in Table 4.1. The next section briefly describes how a corpus-based SFL genre study fits into the QUAL→ quant approach outlined above.

4.1.3 A Corpus-based SFL genre study of disciplinary seminar discussions

This section considers from a theoretical perspective how a corpus-based SFL genre approach is used in the study to move from meaning to language and then to system. Practical analysis procedures are given in section 4.3.

4.1.3.1 A corpus-based study of DMGs

To elucidate the patterns of spoken academic discussions in HE seminars in the UK, it was necessary to use authentic data from this context. A corpus study is thus most appropriate. As noted by Sinclair (2005):

> A corpus is a collection of pieces of language text in electronic form, selected according to external criteria to represent, as far as possible, a language or language variety as a source of data for linguistic research. (n.p.)

This study is corpus-based in two respects. Firstly it uses a corpus as data, and secondly, it incorporates corpus techniques in the investigation of the data in order to investigate language that the eye or hand alone would not be able to process within a reasonable timeframe (McEnery & Hardie, 2012). The former aspect is dealt with below where the dataset is presented and discussed with regard to corpus building guidelines, particularly the problematic areas for this study: issues of authenticity, balance, and representativeness. The measures for ensuring accuracy of data are described as well as steps in data adaptation process. The specific corpus techniques used in the investigations are detailed in the analysis section, Section 4.3. First, however, this study is defined as a corpus-based as opposed to a corpus-driven study.

There are some who divide Corpus Linguistics into a corpus-based versus corpus driven dichotomy. A full discussion of the distinction is not attempted here (see for example, Tognini-Bonelli, 2001, for a discussion of this matter). Briefly, however, corpus-based approaches tend to use corpus data to investigate language using another framework or theory of language. In such an approach, Corpus Linguistics is often seen as a method (for example, McEnery & Hardie, 2012). Corpus-driven approaches on the other hand, reject the notion of corpus as a method and view that the corpus itself embodies a theory of language (Tognini-Bonelli, 2001). However, this dichotomy, and the notion that the corpus has a theoretical status is disputable. In fact, as noted by McEnery and Hardie (2012), no study of language can be entirely theory free and thus '*all* Corpus Linguistics can be justly describe as corpus based' (2012, p. 6). As noted by McEnery and Gabrielatos (2006, p. 35): 'the focus and method of research, as well as the corpus selected for study, is influenced by the theoretical orientation of the researchers, explicit or implicit'. The view taken here is that Corpus Linguistics is a method to which a researcher will bring knowledge of other theories; while the study is corpus based, it integrates both deductive and inductive techniques. Thus, while using theory to inform the corpus study, it recognizes that corpus data can also inform theory.

To some extent there is no need to justify the use of corpora from an SFL perspective: according to Halliday (2004), all SFL studies are corpus projects as they are carried out on real texts. He further notes that the study of grammatical frequency is not an optional extra (Halliday, 2004). In following the Firthian tradition, SFL has always insisted on the use of real corpus data for its investigations. However, it is only relatively recently that there have been attempts 'to operationalize frequency as a feature' (Thompson & Hunston, 2006, p. 5), with systemicists generally being interested in the frequencies of abstract categories derived from system networks rather than frequencies of strings of words or letters. Rather than being interested in only one or the other – that is, *either* meaning potential *or* meaning realisation

through lexicogrammar – this study harnesses the strengths of both CL and SFL to investigate both the abstract categories within the system of language but also uses corpus tools to investigate the lexicogrammatical realisation of these categories. The QUAL→ quant approach and the combination of inductive and deductive CL techniques allow this consideration of both system and instance (that is, the system of language versus an instance of language (use), as explained in detail in what follows (Section 4.1.3.2). The CL techniques are detailed in Section 4.3.

4.1.3.2 The DMG as a textual unit of analysis

A final theoretical consideration is the concept of a DMG as a textual unit of analysis and its relation to the system of language. In systemic functional theory, text is the primary unit of analysis, and it is text as an instance of the language system that is focused on in this study. A text can be as long as a thesis or as short as a line of graffiti scrawled on a wall. In fact, a text is 'any instance of language, in any medium, that makes sense to someone who knows the language' (Halliday & Matthiessen, 2004, p. 3). Like Martin and Rose, I take the view that to carry out discourse analysis, we must look at an entire text as it unfolds in context (Martin & Rose, 2002). The texts that I have chosen to explore in their entirety because of their applicability to teaching are 'chunks of talk' that can be viewed as realisations of DMGs. Looking at individual texts helps to build up a picture of the language system, a concept in SFL termed instantiation (see Halliday, 2004 for more detail).

Following the definition of genre as a 'staged, goal-oriented, social process in which speakers engage as members of our culture' (Martin, 1984, p. 24), this thesis focuses on the longer stretches of talk within the seminar discussions that have predictable staging, as well as a distinct goal identifiable within the broader goal of 'learning'. Following Martin's use of the term 'macro-genre' to refer to texts comprising more than one 'elemental genre' (Martin, 2002, p. 269), these longer stretches of talk are termed Discussion Macro Genres (DMGs). An example of a

Discussion Macro Genre is for example Debating, while an example of an elemental genre in this study is a narrative in the evidence stage of the Debating DMG, though the concept of elemental genres is not otherwise used in this study.

In brief, by working first at the level of discourse semantics and asking what it is that the seminar discussions are doing beyond the pedagogic purpose, as well as identifying the stages that make up the DMGs, I arrive at the DMG classifications. So, for example, students could be discussing an artwork, moving through the functions of providing a Description and Evaluation stage. This is one instance of the Responding DMG. As noted by Nesi and Gardner (2012), 'genres are abstractions – so they are not the (written) texts themselves, but conventional ways of doing things, realized by the text' (p. 24, parentheses added). That is to say, the individual texts explored are instances of the DMG. By working with instances, it is possible to characterize the particular part of the language system that is of interest here, i.e., academic seminar discussion.

While the practical analysis procedures are detailed in section 4.3, it is necessary at this point to briefly exemplify the theoretical construct of the DMG as a unit of analysis. An extract from one of the types of DMG in the corpus, the Responding DMG, is thus shown in Extract 4.1 with the functional stages and the moves within the stages marked.

The overall social purpose of the 'Responding DMG' is to describe and give a personal reaction to and/or interpretation of an event or artefact. The functional stages in the Responding DMG are Description, Evaluation and Interpretation. These are shown in the central column and a brief explanation is given in the right hand column of Extract 4.1.

Extract 4.1 Functional Stages in a Responding DMG

speaker: transcript	stage: move	notes
Jinny: er well some like okay let's say take the one who that Ourman's The Plan and when he took the gallery and he filled it with rubbish and you weren't allowed to enter the gallery space or anything you had to er you had to look in through the window	Description: provide	describes artwork
and therefore he made the gallery as much of an art form as the rubbish inside it	Interpretation: provide	interprets artwork
which was brilliant it's a great idea	Evaluation: provide	evaluates artwork

ahsem007ug

Extract 4.1 demonstrates how the concept of genre is used in the analysis of the seminar discussions to recognise DMGs. In the extract are three stages that have an identifiable function in relation to the whole of the DMG. There is only one student speaking, although this is part of a longer example of a Responding DMG where the students co-construct the genre, each contributing to different stages. By investigating these individual instances of a DMG we can start to build a picture of the wider system of the language of seminar discussions.

4.2 Data and software

This section introduces criteria for corpus building before outlining data selection steps and presenting the data set. UAM CT is identified as appropriate software for analysis. The section then brings together tools and data by evaluating the data corpus against the general corpus building criteria. In what follows, ‘the study corpus’

is used to refer to the video and text files selected for use in this study. BASE Corpus refers to the entire corpus from which the files were drawn.

4.2.1 Corpus building criteria: the 'ideal' corpus

A corpus needs to fulfil certain criteria though this is not as straightforward as it might first appear. As noted above, a corpus can be defined as a body of authentic and naturally occurring texts which is machine readable. A further criterion is that a corpus should not be a haphazard collection of texts, but that rather corpora 'are generally assembled with particular purposes in mind, and are often assembled to be (informally speaking) *representative* of some language or text type' (Leech, 1992, p. 116). In order to be representative, as noted by McEnery, Xiao, and Tono (2006), a corpus needs to be sampled. In the process of sourcing suitable data for this study, it became clear that, as well as problems with gaining authentic and machine readable spoken texts for analysis, '(b)alance, representativeness and comparability are ideals which corpus builders strive for, but rarely, if ever, attain' (McEnery & Hardie, 2012, p. 10). Despite the fact that the data used in this corpus and presented in the following section are the most appropriate for use that was available at the time, there are certain issues with each of criterion mentioned above. These issues are discussed further in Section 4.2.4.

A further issue to be considered in relation to corpus compilation is that of corpus size. At just over 150,000 words, the corpus in this study can be considered 'small', even for a spoken corpus. Flowerdew (2009), for example, notes that it is generally agreed that small corpora contain up to 250, 000 words. With the advent of machine readable texts that could be used in corpus studies, there was a drive towards the analysis of very large corpora:

> this can be attributed in part to the excitement engendered by the possibility of collecting a million words of data (a figure that was put forward for some time as being the minimum size for a corpus). (Evinson, 2010, p. 123)

While some still ascribe to the view that bigger is better, most researchers recognize that the size of corpus required depends on various issues such as the research question to be answered, the approach taken, and the variety of language studied.

One issue relating to corpus size and the type of research question to be answered is the frequency of the language items to be studied. Early users of large electronic corpora, lexicographers, needed these very large corpora to be able to extract sufficient examples of infrequent words (Evinson, 2010). In investigating more frequent items however, much smaller corpora are adequate. For example, Biber (1990), demonstrates that as few as 1,000 words of data can generate reliable results. A further point often made, and one particularly relevant for the present study, is that smaller corpora are adequate for investigating specialized discourse (Tribble, 1997, cited in Evinson, 2010). This study is not interested in the behaviour of individual lexical items *per se*: that is, it does not as lexicographers might do, set out to profile the behaviour of specific lexical items. Rather it looks at individual items as they relate to the language as a system, and recognizes that different words might perform similar functions in a similar way within a stage. So while a word that is key to a particular stage may only occur a small number of times, it can be viewed in relation to other keywords for that stage in order to see the *type* of meanings that are salient in particular stages: for example items relating to feelings in the Evaluation stage of the Responding DMG – discussed in more detail in Chapter 7.

The practical issues of compiling a large spoken corpus also need to be considered, but it should not be presumed that the decision to use a small spoken corpus is a compromise. Indeed there are reasons why a small corpus was preferable for this study. The first step of the analysis, identifying discussion phases and then classifying these into DMGs and stages, was done by hand on the entire dataset, a time-consuming process that would have been unmanageable with a much larger corpus (see Section 4.3 for specific analysis and annotation details). On the micro level, there are also benefits to a small corpus. As noted by Koester

(2010a), while the volume of hits for high-frequency items may become unmanageable in large corpora, using a small corpus allows *all* instances of an item to be explored rather than just a small sample.

This study follows in the footsteps of other studies which have looked at relatively small datasets but have still been able to provide useful insights into the spoken discourse of a particular setting, by combining various qualitative approaches to the analysis of spoken discourse with the use of corpora. For example, Koester (2006) combined genre analysis with corpus techniques to examine workplace discourse in her small corpus of 34,000 tokens (discussed in Chapter 2 and in more detail in Chapters 6 to 8); while O'Keeffe (2004) studied a corpus of 55,000 tokens of radio phone-in data. From a functional perspective, O'Halloran (2011) investigated argumentation patterns in a small corpus of reading group data of approximately 78,000 tokens to show different grammatical patterns in the functions of claiming, challenging and co-constructing moves.

The data used in the study is now presented, before considering in more detail how well the dataset meets the criteria noted above.

4.2.2 BASE and the seminar discussion corpus

The data for this study were drawn from the British Academic Spoken English Corpus (BASE). BASE consists of transcripts and videos of 160 lectures and 39 seminars recorded at the University of Warwick and the University of Reading between 2000 and 2005.[16] The corpus is representative of the four discipline areas of Life Sciences, Physical Sciences, Social Sciences and Arts and Humanities. Files are available for

[16] As is often the case in the UK, seminar participants are from a wide range of countries with numerous different first languages. However, this information is not required for the purposes of the study, as all students in the seminars have met the requirements to study on their particular courses and learner language is not the focus of the study. Preferred or dispreferred DMG choices/ contributions can be made irrespective of first language or speaker status.

download in txt and xml format. Although the xml files contain a certain amount of markup (for example, paralinguistic features), there is very limited markup of the seminar corpus. Video files can be made available to researchers on request for a small fee.

This study focuses on the seminar component of the BASE corpus. 17 seminars from the BASE Corpus were used in this study (selection criteria are discussed below). The selected seminars contain a total of 186,202 tokens. The video files were also used for the purposes of analysis, as detailed in Section 4.3. The study corpus comprises both undergraduate and postgraduate seminars. Seminars are divided into three disciplinary areas, saved as separate subcorpora, which form the basis for the cross-disciplinary comparison. The disciplinary areas and the abbreviations used to refer to them are as follows:

Arts and Humanities (AH)
Physical Sciences (PS)
Social Sciences (SS)

A breakdown of the tokens and total hours for each of the discipline areas in the study corpus as a whole, and in the seminar discussions, is given in Table 4.2. The left-hand column shows the number of tokens in each discipline area in total in the corpus, the right shows the number of tokens of these seminars that were made up of discussion phases.

Table 4.2 Discipline areas, tokens and hours in study corpus

Discipline areas	Tokens	Tokens discussion*	Total hours
Arts and Humanities (AH)	81,504	67,826	7:58:12
Physical Sciences (PS)	51,835	50,905	5:03:47
Social Sciences (SS)	52,863	44,969	6:25:43
Total	**18,6202**	**16,3700**	**19:27:42**

*This refers to the total word count in the discussion phases for each disciplinary subcorpus.

Details about the exact nature of the files in the study corpus are given in Table 4.3, with discipline area and level of study as well as number of seminar participants indicated.

Table 4.3 Files in study corpus: department, level and participant numbers

File ref[17]	Department	Level	Number of Students	Tokens	Minutes
				Arts and Humanities	
ahsem003ug	Comparative American Studies	UG	<10	11,364	01:11:50
ahsem004ug	English and Comparative Literary Studies	UG	20	14,001	01:36:53
ahsem006ug	Film and Television Studies	UG	<10	9,377	00:55:21
ahsem007ug[18]	History of Art	UG	<15	17,637	01:33:38
ahsem008pg	History	PG	<5	17,125	01:36:59
ahsem010pg	Theatre Studies	PG	<20	12,000	01:03:31
			Totals	**81,234**	**07:58:12**
				Physical Sciences	
pssem001ug	Chemistry	UG	<20	9,010	00:55:35
pssem002ug	Chemistry	UG	<20	9,102	00:54:30
pssem003ug	Chemistry	UG	<20	10,482	01:15:04
pssem004ug	Chemistry	UG	<20	14,506	01:16:04
pssem007ug	Engineering	UG	4	8,735	00:42:34
			Totals	**51,835**	**5:03:47**
				Social Sciences	
sssem002pg	Gender Studies	PG	15	12,603	01:34:50
sssem003pg	Economics	PG	20	6,653	00:51:04
sssem005pg	Development Studies	PG	20	10,427	01:14:50
sssem006ug	Law	UG	15	8,833	01:20:16
sssem007ug	Psychology	UG	20-30	6,841	00:37:26
sssem008ug	Social Policy	UG	10-20	7,506	00:47:17
			Totals	**52,863**	**6:25:43**

The full seminar titles and an overview of DMGs are given in Appendix 2.

4.2.2.1 Selecting the seminar files

Measures were taken to ensure that the seminars included in the study corpus would be appropriate for the study. As the study focused on discussions in different discipline areas, there needed to be a disciplinary spread in the corpus. The seminars also needed to contain a sufficient amount of discussion for recognition of DMGs (following previous work on spoken and written genres as discussed in Chapter 3). In order to select seminars with a sufficient amount of discussion, the seminars were viewed and the transcripts broken down into 'phases' (the term phase refers to longer sections of the seminar containing particular activities, these are for example, presentation phases or discussion phases). Phases were clearly identifiable in the corpus by clues such as a speaker being invited to take the floor and give a presentation (a presentation phase) or the floor being opened for discussion or some other signal being given that seminar participants are expected to participate in the on-going talk by the tutor or a presenter (discussion phase). Phases other than discussion and their identification are not further detailed. Those seminars which did not contain any discussion phases or where discussion phases were too short to be investigated from DMGs (for example, a 2-5 minute discussion in a seminar consisting otherwise of student presentations) were discounted. This is because the thesis focuses on long stretches of talk rather than short intervals of discussion. While the size of each disciplinary subcorpus is not equal, the calculations that compare disciplinary subcopora or DMGs are subject to a normalization process (that is, the raw frequencies are expressed by a common

[17] The file reference code is as follows: Discipline Area (AH, SS or PS), followed by sem (seminar), then a three-digit file reference number and finally, ug or pg depending on whether the seminar is an undergraduate or postgraduate seminar.
[18] Because this seminar is divided into two separate recordings, a first part comprising discussion and the second part of student presentations, only the first half is included in the seminar corpus.

factor, as noted by Evinson, 2010). This is explained in more detail in Section 4.3 as it needed to be conducted after the initial DMG identification.

4.2.2.2 Data accuracy

It was important to listen to and watch the recordings carefully, as reading the transcripts offers a different understanding of the data: for example, a gesture may explain what seems to be an incongruous answer to a question. While the recordings were listened to and watched several times, it is accepted that the process of transcription will always miss certain details as '[t]here is no one, true representation of spoken language' (Huberman & Miles, 2002, p. 225).

4.2.2.3 Ethical considerations

The participants in the BASE Corpus agreed to being filmed and included in the corpus. The BASE team followed appropriate ethical procedures in the creation of the corpus.[19]

4.2.3 UAM Corpus Tool

The data were annotated and explored using UAM CT (O'Donnell, 2008). The versatility of UAM CT allowed not only comparisons across the three disciplinary subcorpora, but also across DMGs and stages in a variety of combinations.

The directions of comparison are best described with the use of diagrams. A cross-disciplinary study might focus on the differences in lexicogrammatical patterns

[19] Further information can be found on the BASE website http://www.coventry.ac.uk/research/research-directory/art-design/british-academic-spoken-english-corpus-base/

in isolation across different disciplines. This is represented diagrammatically as in the figure below.

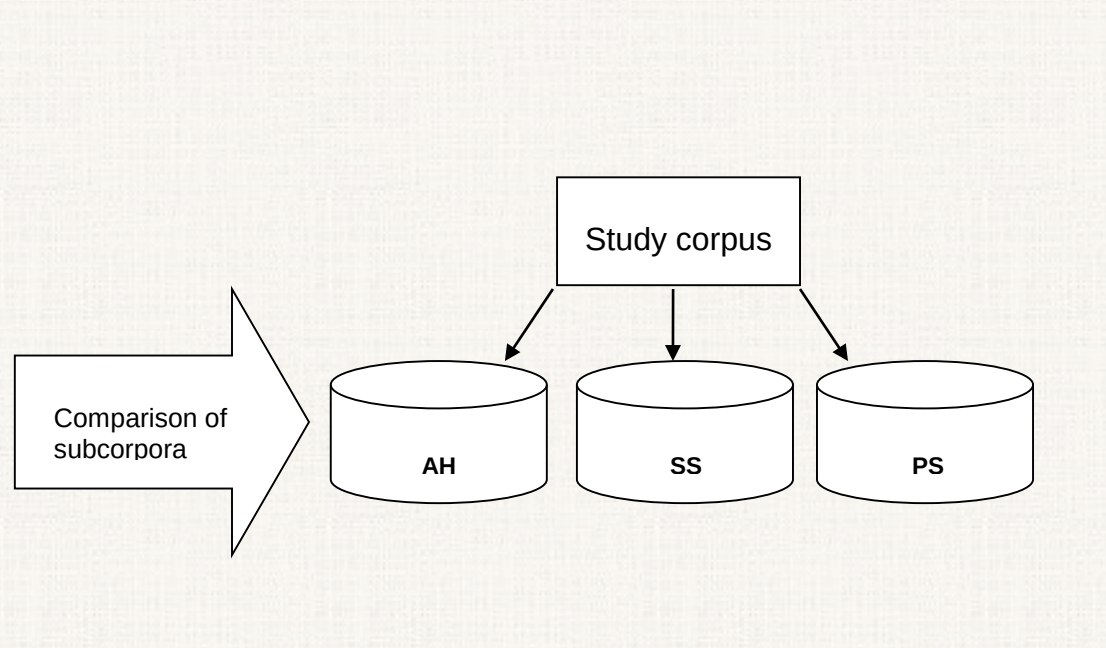


Figure 4.1 Traditional direction of comparison in a cross disciplinary study

A study such as this could be conducted using traditional corpus software such as Wordsmith Tools (Scott, 2012) where isolated features in the three different disciplinary subcorpora could be compared. However, for the present study, a tool was required that would not only allow the annotation of different features in the corpus, on the levels of phase, DMG, stage and move (as identified as appropriate levels of analysis for a genre study of interactive discourse in Chapter 3), but that would also allow a comparison of the numerous features both across the corpus as a whole and between the different disciplines. The possible directions of these comparisons as used in this study are shown in Figure 4.3.

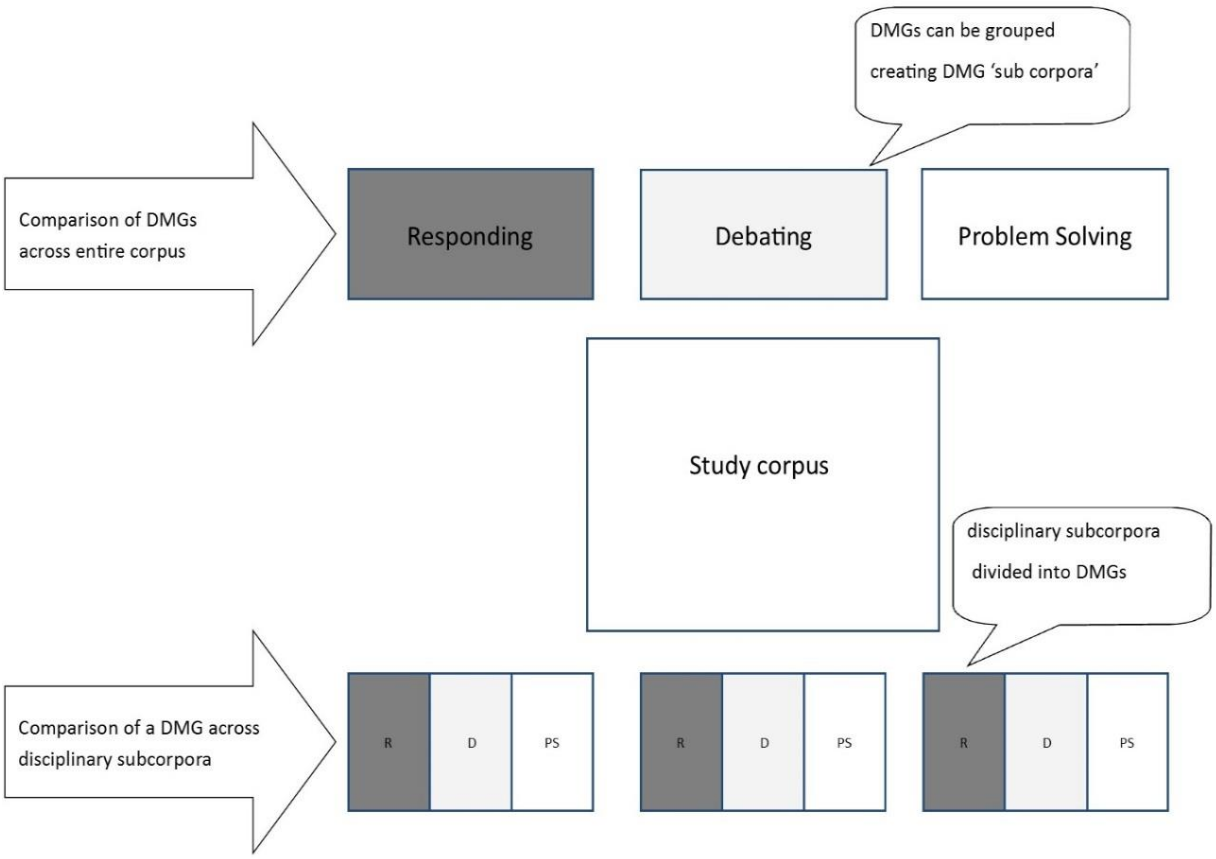


Figure 4.2 Comparisons across disciplines and DMGs

As shown in the diagram above, as well as the three disciplinary subcorpora, UAM CT allows the compilation of what are effectively subcorpora of DMGs that can be compared (in Figure 4.2 only the three main DMGs are shown). One benefit of UAM CT in this respect is that it allows multiple layers to be created for the annotations of several files, while still keeping the disciplinary subcorpora separate. The layers can then be compared in different ways. The first is by comparing DMGs, for example, comparing Problem Solving to Debating across the corpus as a whole, as shown in the top row of Figure 4.2. The second is comparing how DMGs differ in features or distribution across the corpus, for example, comparing Responding in Physical

Sciences to Responding in Arts and Humanities, as shown in the bottom row of Figure 4.2.

Apart from annotation, many of the usual features included in corpus tools are present in UAM: for example keywords, or searches by annotation and/or string. How these features are used in the micro analysis is explained in more detail in Section 4.3.

UAM CT works with txt files and the BASE corpus files are available in this format as well as xml so the files could be easily imported into the software. Using the txt files rather than the xml files meant that the full markup included in the BASE corpus was not available for use in this project (for instance, markup of the end of an utterance that is included in the xml files). However, as noted by the compilers of BASE with regard to the seminars in comparison to the lectures:

> use of body language, of intonation, etc., to regulate interaction in the seminars is potentially so complex that it is difficult to assess the level of markup that is required, and thus it was decided to keep the amount of detail at a low level and to leave the close coding of the data to the interested researcher. (Nesi & Thompson, 2006, p. 2)

As the functional annotations needed for my purposes were different from those used by the BASE compilers, not having access to the mark up in the xml files was unproblematic.

One negative aspect of needing to work with txt files in UAM CT, however, is that the speaker IDs are included in the transcript and it is currently not possible in the software to separate speaker IDs from word counts. This means that there is a slight margin of error in the word counts produced with UAM CT when compared to the word counts in the original BASE corpus holding files: that is, the word counts given by UAM CT for the files and for the annotated discussions are greater than the original seminar files. The reason that speaker IDs are also included in the word

counts for the annotated data is because the DMGs extend over multiple speaker turns (this is an issue that is addressed below) so it was also necessary to annotate the IDs. In the keyword and frequency list analyses, the speaker IDs are present as 'noise' and are ignored. The language features emerging from the study using corpus based techniques are not affected. The only instance where the word count issue may cause problems is when comparing word counts with previous studies: for example, pronoun use/1000 words in the study corpus compared to the BNC. Comparison with external corpora was not a major technique used in this study, but although a small number of comparisons are made in the discussion chapter, this issue does not affect comparisons made. The benefits of the annotation tool employed, as discussed further in Section 4.3, were considered to outweigh this and other minor disadvantages of the tool.

In the BASE corpus, speakers are assigned 6 character identification codes specifying, for example, sex, tutor/student or other speaker status (the codes are shown in Appendix 3). These codes were left in the study corpus for ease of identification but randomly assigned names (taking gender into account) are used with longer examples in the thesis for the sake of easier reading. In tables and shorter, single speaker extracts the codes t and s are used for tutor and student respectively.

4.2.4 Evaluation of data set

How far the data set used in the study fulfils the desirable criteria for a corpus, as mentioned in Section 4.2.1 above, will now be considered in detail, as well as discussing further limitations with the dataset.

One of the first criteria for a corpus is that it should be authentic – the texts used in this study are naturally occurring in the sense that the seminars would have taken place irrespective of the corpus data collection (of course they would not normally have been recorded or transcribed). It is certain that recording had at least a

minimal effect on the language produced, a fact that is evidenced by references to the recording, as shown in the screen shot below.

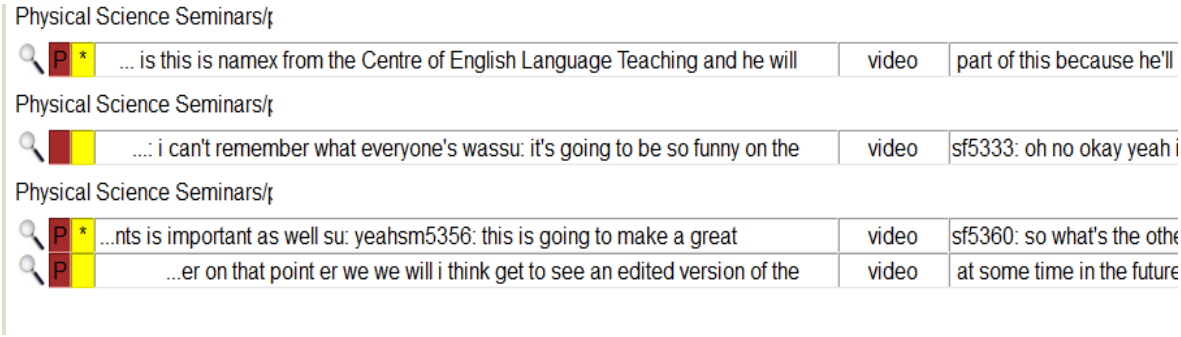


Figure 4.3 Screenshot showing search results for *video*

However, it would not be possible to ethically compile a corpus of spoken data without gaining permission from the speakers, so there will always be an element of the observer's paradox (after Labov, 1972) apparent in any spoken corpus. It can be argued that this effect is minimal in the study corpus as the recording is mentioned at the beginning of each session, usually before the recording starts, and then not generally referred to again by the tutors; the above examples are exceptions rather than commonplace references to the ongoing recordings.

The issue of sampling is one that is particularly difficult for compilers of spoken discourse. Here I am referring to using only a small number of texts from a much larger data set in order to make a representative corpus and not 'sampling' by chopping up texts. The latter method obscures the structure of texts and skews the data – it is important to ensure integrity of entire texts (Sinclair, 2005). Sampling then, is only possible where there is large number of possible texts, known as a sampling frame, from which the actual texts used are selected. However, as I know from previous experience of compiling corpora, it is often a case of including what people are prepared to submit or allow the researcher access to – particularly with spoken corpora. This is not often the case with a written corpus, for example, of news articles

from a particular period, where there is huge amount of data to choose from. In this case, sampling was not possible, as there was not a large number of seminars to choose from.

The issue of representativeness of the corpus proved one of the biggest challenges in selecting data for investigation and using an 'off the shelf' corpus that could not be tailored to the study. This is shown in the makeup both of the original BASE corpus and the study corpus. BASE was recorded at two UK institutions, only 17 seminars are used in the study, and, as shown in Table 4.3, there is an overrepresentation of some disciplines, for example all except one seminar in the PS subcorpus are Chemistry seminars. Additionally, certain disciplines and discipline areas are not present. In aiming to compile a corpus that would allow comparison of discussion, the Life Science (LS) seminars in the BASE corpus are excluded entirely from the analysis. The reason for this is that an initial qualitative analysis of the data showed that the LS seminars in the BASE corpus were presentations to large groups of upwards of 80 students and thus not suitable for investigating small group seminar discussion. This selection of the seminars according to content might be said to be contrary to Sinclair's criteria for the external section of data according to nomenclature of the discourse community rather than the internal criteria of the texts (Sinclair, 2005). Indeed, it is possible that the seminars are representative of what the term 'seminar' means in a LS context. However, the fact that the seminars consisted mainly of presentations and very little discussion meant that they were not suitable to be included in a study of seminar *discussion*. Using the LS seminars would also not have allowed for a cross-disciplinary comparison as a presentation is a very different in nature to an interactive discussion.

While bearing the above limitations in mind, it is worth considering the following:

> claims of corpus representativeness and balance … should be interpreted in relative terms and considered as a statement of faith rather than as a fact, as

> presently there is no objective way to balance a corpus or measure its representativeness. (McEnery et al., 2006, p. 5)

So despite questions about balance and representativeness as noted above, the dataset selected allows for comparable discussion to test the model of categorizing seminar discussion according to function. This dataset can ideally be extended (further discussed in Chapter 9).

Choosing to use an off-the-shelf corpus and gaining access to the BASE corpus afforded numerous advantages. Firstly, not having to navigate the practicalities involved in compiling a corpus allowed for a focus on the actual data analysis that would help to answer my questions. Choosing a publicly funded corpus meant that the equipment and resources used in the compilation of the corpus were better than I, as an individual researcher, could have had access to, with the further benefit that the seminars were recorded at two different institutions. The large team working on the corpus meant access to a larger amount of data and broader disciplinary spread than would have otherwise been possible. Ethical considerations were also handled by the BASE team. This meant that without needing to undergo a lengthy process to ensure all permissions were gained, the data is already available to the wider research community who may find a use for the annotations of the corpus.

However, apart from issues of representativeness and balance which could have been problematic, particular issues arise from the fact that an ‘off-the-shelf’ corpus was chosen. The first of these is that, from a qualitative perspective, I am not as familiar with the data as I would have been had I recorded and transcribed it myself. However, the videos available with the BASE files help with this problem. Issues with copyright meant that the data is not available for published teaching materials, since only a limited number of lines from the corpus may be published. However, the concepts trialled here are transferable to other contexts and data. Finally, the data were recorded some years ago, between 2000 and 2005, so may be

regarded as out-dated. There have certainly been numerous developments in the HE context in the UK which would have an effect on equivalent data being recorded today. For example, 2006/07 saw the introduction of tuition fees in UK universities. This led to greater accountability in terms of teaching quality as demanded by fee-paying students. Another change is the availability of online courses, and increased homogeneity as a result of government policies.

This section has outlined the data set used and shown that despite its limitations, the dataset chosen is the most suitable for this project in terms of size, disciplinary spread, availability of multimedia data files and context of data.[20] In sum, despite the disadvantages of drawing my data from an existing corpus as outlined above, doing so provided me with the most representative corpus possible to meet the aims of the research.

4.3 Analysis

This section details the analysis procedure in terms of both qualitative and quantitative steps. The analysis begins at the level of discourse semantics, and investigates the meanings the seminar participants are making, first in terms of each DMG and stages within the DMGs. The investigation then moves to the level of lexicogrammar to explore how meaning is played out linguistically through the choices made by the seminar participants from the system of language.

4.3.1 Overview of steps for analysis

Here, how each of the steps fits into the research design is explained, while more details are provided in the following sections. A summary of the steps for analysis is given in Table 4.4.

[20] See Appendix 1 for an overview of existing spoken academic corpora.

Table 4.4 Steps for analysis

1. Identifying DMGs in the discussion phases
2. Noting key language patterns in the genres
3. Comparing semantic and lexicogrammatical patterns of genres across the disciplines
4. Comparing distribution of genres across the disciplines

The techniques involved in each of the steps for analysis and the classifications eventually used (for example, the specific corpus techniques employed and the DMG names/ classifications) were refined through the process of investigations and as such can be described as 'emergent'. A full list of DMGs identified in the corpus is provided below as these will be referred to in the analysis section.

Table 4.5 DMGs in the study corpus

DMG
Debating
Responding
Problem Solving
Explaining
Describing
Organising

The analysis step here was a qualitative step – this was to watch all the discussions, along with the transcripts in order to gain an overview of content. Sections of discussion that seemed to have a similar purpose and staging (for example solving a problem) were grouped and compared. Individual DMGs and their

types were identified, for example, Responding, and annotated in terms of functional properties (see section 4.3.2 for details).

Bauer and Gaskell (2000, p. 8) provide a clear analogy explaining why it can be worthwhile to begin with such a qualitative analysis:

> If one wants to know the colour distribution in a field of flowers, one first needs to establish the set of colours that are in the field; then one can start counting the flowers of a particular colour.

Word counts were the first quantitative steps of the data analysis, calculated in UAM CT by selecting the annotated sections and viewing the 'general text statistics' pane. Corpus linguistics methods were introduced to the data as a springboard for the microanalysis, pointing out directions for what to investigate in detail in the different DMGs. Corpus techniques used were word frequency lists, keyword analysis, keyphrase analysis, and corpus searches. These searches were either for annotations or for specific language features identified in the course of qualitative analyses (corpus techniques used and features explored are detailed under Step f of the steps for analysis below – the steps are adapted from the steps for genre analysis put forward by Eggins and Slade (2005)). The addition of these corpus techniques into what is primarily a qualitative data analysis helped to ensure that that breadth is not compromised over depth in the study. However, the transcripts and audio visual files were returned to for a closer reading, to gain an understanding of what the quantitative findings meant in context.

As shown above, the mixed methods approach is used in the data analysis process in order for the depth of understanding to be increased (by closely analysing individual instances) and for corroboration (for example by confirming analyses across the dataset). According to Johnson et al. (2007):

> During the data analysis stage, quantitative data can facilitate the assessment of generalizability of the qualitative data and shed new light on qualitative

> findings. Alternatively, during the data analysis stage, qualitative data can play an important role by interpreting, clarifying, describing, and validating quantitative results, as well as through grounding and modifying. (p. 115)

Introducing the quantitative techniques afforded by electronic corpora during the analysis stage allowed me to learn how far my interpretations of individual discussions were true across the corpus. These techniques are detailed under step f. below.

The following presents each analysis step in more depth.

4.3.2 Step 1. Identifying DMGs

In conducting the data analysis, I moved back and forth from theory to text. The DMG categories referred to in step 1 were not established a-priori, although those genres previously investigated by researchers, both in the field of spoken dialogue and in written genres in education, were used to inform the analysis (for example, Martin & Rose, 2008; Nesi & Gardner, 2012). To identify the DMGs within the discussion phases of the seminars (Step 1) the work of Eggins and Slade (2005) was used.

Adapting the model used by Eggins and Slade for recognizing ‘chunks’ of talk, DMGs were identified and explored by:

a. Identifying ‘chunks’

b. Defining the social purpose of a chunk and naming the DMG

c. Identifying stages/function of stages within the DMG

d. Specifying obligatory and optional stages

e. Identifying moves within the stages

f. Exploring the language within the stages/moves

(adapted from Eggins & Slade, 2005, pp. 231-235)

Below I explain exactly how I went through the six processes (a – f) outlined above.

4.3.2.1 Identifying ‘chunks’

Chunks, which could later be categorised as DMGs were initially identified in the transcript by looking for longer stretches of talk that have a clearly identifiable field (at the level of discourse semantics) and by identifying certain linguistic indicators showing where the beginning and end of the chunks of talk are. These linguistic indicators are listed below with examples.

1. Questions (elicit moves)

Plum (1998), in a study of (elicited) narratives in spoken discourse, used the questions in his interviews as clues for the beginning of a narrative. Here, questions are an important means of recognising the beginning of a text. In the extract below for a Social Science Seminar on Gender and Globalisation, the students are discussing the effects of globalization on women. Specifically they had been talking about the effects of structural adjustment programmes imposed on third world countries by the West which led to work that was previously done in the paid sector being done by women at home (caring etc.). The tutor opens this part of the discussion with a question by asking what women can do to tackle the negative effects of structural adjustment programmes, as shown in Extract 4.2.

Extract 4.2 Question indicating beginning of ‘chunk’

speaker: transcript
t: well did did any other er did you discuss er what women should might do to tackle some of the negative effects negative effects of structural adjustment programmes it's called

Likewise at the end of a text there may be a reference to the eliciting question or other anaphoric references indicating that the text has finished.

2. Change in field

Another clear indicator of a new text is a clear change in the field of a text: where the participants have been talking about one topic and switch to another. In the following example in Extract 4.3 there is a clear change of field as the tutor summarises the previous stretch of talk ‘the structural and economic aspects of globalisation’ and signals a change in topic to ‘cultural globalisation’.

Extract 4.3 Change in field

speaker: transcript
t: ok we talked a lot about er structural and economic aspects of globalisation but what about the cultural argument how far does cultural globalisation spread do you think we're all becoming one culture

3. Discourse markers

It is recognized that discourse markers act as organizers of talk (for example, Schiffrin, 1987; Crawford Camiciottoli, 2004; Deroey, 2012) and these also provided useful clues for where a DMG might start or end. Discourse markers indicating the beginning or end of a text are *ok* or *well* (as in Extract 4.3 above) *right, so.* These are equally useful for distinguishing the start or end of a stage or move.

4. Multimodal indicators

If in doubt the video recordings could be referred to and various features used to clarify where chunks begin and end: for example, indicators of pitch, such as a higher pitch at the beginning of a text or a drop in pitch as well as silence at the end of a text, or pauses before the start of a new chunk, as well as extralinguistic features such as gestures, for example, indicating that another speaker was being given the floor).

It is not the case that a new text necessarily begins where the previous text finishes, as often there are sections of 'other' talk between these texts ('other' talk is talk which cannot be ascribed to a DMG and is discussed in more detail in Chapter 5.

4.3.2.2 Defining the social purpose of a chunk and naming the DMG

In the educational instruction context of the corpus, the overarching purpose of the DMGs within the discussion is pedagogical. However, within this broader goal, there are more narrowly definable purposes, and in defining the social purpose of DMGs, I asked the question 'What are the speakers doing?' and then grouped together those stretches of discourse that seemed to share a similar purpose. As these categories were emergent rather than defined a priori, it was necessary to return to the data several times and redefine the categories in the light of new evidence, while also referring back to the literature to see if and how the chunks emerging from my corpus were similar to those genres identified by previous researchers investigating spoken, written or online discourse using a genre model, such as those discussed in Chapter 3 (for example, Coffin et al, 2012). Once I was content with the groupings, I named them according to the main disciplinary purpose. This gave me a set of DMGs.

4.3.2.4 Identifying stages /function of stages within DMG

As discussed in Chapter 3, genres have a step-by-step organisation. This is due to the fact that we cannot make all the meanings we need to make at once (Martin and Rose, 2008). As noted by Eggins, '[e]ach stage in the genre contributes a part of the overall meaning that must be made for the genre to be accomplished successfully'

(Eggins, 2004, p. 59). Although it is not the case that the DMG stages are ordered in a completely predictable way, the stages that will occur in a particular DMG are to some extent predictable.

Eggins and Slade (2005) discuss how to decide whether two parts of a text represent different stages. They state that we could either divide stages formally, for example, by speaker turns, or functionally. It is this second criterion that will answer questions about how each stage in the genre contributes to fulfilling the purpose of the text. In identifying stages, I use the definition given by Eggins and Slade and recognize as stages 'only those sentences or groups of sentences which fulfill a functional relation relative to the whole' (Eggins & Slade, 2005, p. 61). A stage is only recognised as such if it can be assigned a functional label. The functional labels assigned to stages, in the Responding DMG, for example, are Description, Evaluation Interpretation (see Chapters 5 to 8 for full lists of all stages in each DMG).

4.3.2.5 Specifying obligatory and optional stages

To discover which stages are obligatory, I ask which stages could be left out while still achieving the primary goal of the text. So for example, a text without a solution would not be a Problem Solving text, but just a problem. Eggins and Slade give the example of a sales transaction, and ask 'what stages could we leave out and still have a transactional text?' (Eggins & Slade, 2005, p. 64). In the context of seminar discussions, tutors will often elicit the obligatory stages if they are not forthcoming from students.

We can define a genre by its predictable generic staging as defined in Chapter 3 and recognise as extended variations of a genre those texts that also include optional elements (Eggins, 2004, p. 65). Following SFL conventions, the optional stages are marked by parentheses as in the Problem Solving DMG (Situation), Problem, Solution, (Evaluation). Due to the interactive nature of the discussions, it was not attempted to provide notation signalling the sequencing of stages. However,

where stages do seem to occur more often in a particular position, this, along with exceptions, is noted in the relevant results and discussion sections.

4.3.2.6 Identifying moves within the stages

Because the stretches of discourse that are investigated here are multi-speaker, the stages are further spilt up into moves. Each move shows an interactive speech function within a stage, specifically, whether a speaker is *eliciting* or *providing* information (based on SFL's division of speech roles into giving and demanding – either goods and services or information (Halliday & Matthiessen, 2004, p. 107). According to Halliday & Matthiessen (2004), these two most fundamental speech roles of giving and demanding information or goods and services lie behind all other types of speech roles that may be recognized. In this study these speech roles are termed *elicit* and *provide moves*. Although these moves could be further divided at greater levels of delicacy according to, for example, whether they are responding or initiating moves, such levels of delicacy were not required for the pedagogical outcomes of the thesis. Moves are labelled according to the stage they belong and whether they have an eliciting or providing function, for example Problem: elicit.

The choice of move as an appropriate unit of analysis to show interactive discourse function will now be further discussed and the choice of other units rejected. As noted by Eggins and Slade (2005, p. 184), 'grammatical form and discourse function are not equivalent, we are dealing with two different types of patterns, closely related but distinct'. Thus it is not possible to use clauses (grammatical units) as a unit of analysis for spoken language as these do not carry the speech function. That is, the speech function (in this study, a move) is not always restricted to a single clause.

The following is an example of how a move can be realized by a number of clauses.

Extract 4.4 Clauses and moves

speaker: (clause number) transcript	stage:move
t: (i) now why is that poem written in that particular way (ii) what do you reckon Sally	Interpretation: elicit

ahsem004ug

In Extract 4.4, there are two clauses realizing the elicit move in the Interpretation stage, which exemplifies the point that the clause is not an appropriate means of identifying function. Instead there needs to be a unit of analysis which is ‘sensitive to interactive function’ (Eggins & Slade, 2005, p. 184) and shows the function of the unit in interaction. Turns might be the most obvious discourse units in interactive discourse, but as noted by Eggins and Slade, these can carry more than one function. The following is an example of how a turn can include several stages and/or moves:

Extract 4.5 Speaker turns, stages and moves

speaker: transcript	stage:move
Leanne: and it's quite interesting as well because at at the beginning the army's kind of shown fairly negatively	Evaluation: provide
because you you hear the woman say er he's he asks her if she's scared of him	Description: provide

ahsem004ug

In Extract 4.5, there is only one turn, but this is spread across two stages of the Responding DMG as the speaker realizes two functions. Firstly, giving an opinion about the film (evaluation) and then describing what happens in the film (description). In contrast, the eliciting move in Extract 4.4 above (part of an Interpretation stage),

there are two clauses which realise the single speech function of eliciting an interpretation.

The above examples show that moves are independent of clauses and turns, and thus need another means of identification. To identify moves in the DMGs, grammatical and prosodic boundaries are used (following Eggins & Slade, 2005, pp. 186-189). Grammatically, whether or not the clause selects independently for mood is an important indicator of a move. Prosodic indicators are whether the end of a clause corresponds to the end of a rhythmic/ intonational unit. For this reason, it is important to listen several times to the recorded data.

Table 4.6 shows the stages and moves present in the Debating DMG and the moves that a speaker can make within each stage. Optional stages are shown in parenthesis in the table.

Table 4.6 Stages and moves in the Debating DMG

Stages	Moves
(Issue)	Issue: elicit
	Issue: provide
Argument	Argument: elicit
	Argument: provide
(Evidence)	Evidence: elicit
	Evidence: provide
Counter	Counter: elicit
	Counter: provide

Through working closely with the data, for each of the stages and moves identified, a probe was devised as a test which would aid in the identification of further examples. All of these probes are provided in the relevant results chapters, but examples for the Argument stage are shown below.

Table 4.7 Probes for Debating – Argument stage (underlined)

Argument *function:* *To provide a stance on an issue*	**Stage: move**	**Example**
Asks the question: What are your views on the issue?	Argument: elicit	tutor: right first question is er whether er or not er it's reasonable to make somebody er an accomplice criminally liable if er they have a power to prevent the crime but fail to do so as in the case between DuCross and Lambourne what do you think_sssem006ug
Answers the question: What is your view on the issue?	Argument: provide	Jeff: okay so basically we decided that according to the initial aims that we thought the revolutionaries had when they first came into power in nineteen-fifty-nine er seems to have been a failure_ahsem003ug

The above stages and moves were annotated in UAM CT in 'layers' with a separate layer assigned to phases and DMGs, another layer for stages and moves, and a final layer for embedded genre. Because the annotations for UAM CT are stored as xml files with 'stand-off annotation' the original txt file is unaltered. This allows for the multiple annotation of the files (each 'layer' is a separate annotation of the file) and also for partially overlapping segments.

The screenshot in Figure 4.4 shows the different annotation layers in the project:

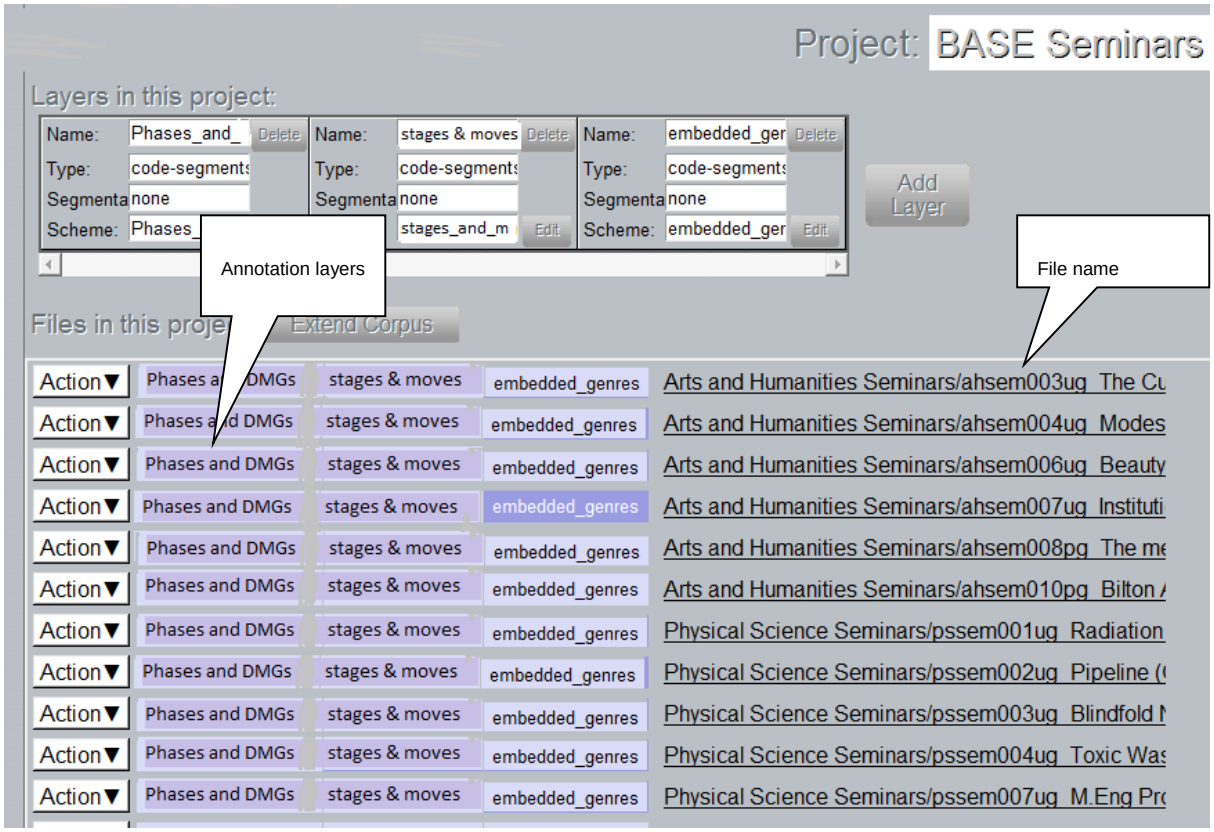


Figure 4.4 Annotation layers in project using UAM Corpus Tool

4.3.3 Step 2. Exploring language within the stages/moves

Each stage in a genre is associated with various lexicogrammatical features (Eggins & Slade, 2005). In order to identify language patterns within the stages of the genres, step 2 involved focusing in on lexicogrammatical patterns which proved salient (occurring regularly and sometimes surprisingly) within each set of texts. The choice of focus was an organic process and of course open to researcher bias. However, I did not approach each DMG with a predefined idea of what to investigate, but allowed this to be determined through initial corpus investigations using techniques

such as keyword and keyphrase analyses, as well as frequency lists. I then particularly focused on those areas which might prove useful for learners, by exploring the experiential, interpersonal and textual metafunctions (for example, looking at process types used in the experiential metafunction where keyword lists flagged this as worth investigating).

Once the areas of language had been pinpointed to investigate in more detail in each DMG, the application of the system networks developed by SFL researchers allowed an exploration of individual texts and recurring patterns in more detail. For example, in looking at evaluation in texts, the system of APPRAISAL was applied (as developed by Martin & White, 2005). Keeping in mind the importance of analysing the entire text in carrying out discourse analysis (Martin & Rose, 2002) I also returned to the individual texts, for example to see how the prosody develops across the course of the text (Hood, 2010). The system networks representing the classifications applied in the analyses are described in each of the relevant results chapters. After a brief description of the normalisation process, below I show how the corpus tools are used to explore the register variables.

4.3.3.1 Normalization

Before describing the different corpus tools used in the analysis, a note is needed about the normalization process that was conducted after identification of the DMGs and functional stages. As noted by Evinson (2010),

> (i)n order to compare frequency counts across corpora of different sizes, a process of normalisation is required. This process involves extrapolating raw frequencies from the different-sized corpora which are being compared so that they can be expressed by a common factor such as a thousand or a million words. (p. 126)

In this study, there are two types of comparison made on what are effectively two different groups of subcorpora: the disciplinary subcorpora, and the DMG

‘subcorpora’. The first comparison is that of tokens in each discipline area that is made up of a DMG, and the second comparison is that of features across the different DMGs. Each of these comparisons requires the data to be normalized but in different ways. Both processes are explained below.

In order to work out how important each of the DMGs was in the corpus, the disciplinary subcorpora needed to be normalized. The starting point for this analysis was the raw word counts making up each of the DMGs in the three disciplinary areas (LS, SS and PS) as well as the raw frequencies for discussion in each of the discipline areas. The importance of each DMG across the corpus was calculated by determining how many words of discussion in each discipline area per 1000 tokens is made up of each DMG. This was calculated by dividing the word count for the DMG by the total word count for discussion in a particular discipline area and then multiplying this by 1000. So for example, returning to Table 4.2 above, 67,826 tokens of discussion are in the AH subcorpus. 23,932 are made up of the Debating DMG (see Chapter 5). So, to calculate how many tokens per 1000 are made up of the Debating DMG is 23,932/67,826 x 1000 = 352.8 words per 1000. An alternative method here would have been to normalize the total tokens for the three disciplinary subcorpora. However, as the discussion section of the seminars is the focus of the study, the normalization process allows comparison of the DMGs/ per 1000 words of discussion in each discipline rather than just per 1000 words of data.

The above tells us the relative frequency of each DMG across the corpus, but in order to compare language features of the DMGs, a different approach was used. As noted by McEnery and Wilson (2001, p. 81) ‘the use of quantification in Corpus Linguistics typically goes well beyond simple counting’, and looking at raw frequency of occurrences will not tell us much. In order to compare the frequencies of a given word across text types it is necessary to normalize the data. Here, we are not comparing disciplines but DMGs, so in this case the frequency of the feature per

1000 words of DMG is calculated. Table 4.8, for example, shows how frequently *yeah* occurs in each of the DMGs.

Table 4.8 Yeah across DMGs

DMG	Total	Tokens DMG	/1000 words of DMG
Responding	244	58,182	5.5
Debating	167	48,648	3.4
Problem Solving	200	61,566	5.4

4.3.3.2 Word frequencies

A corpus analysis allows aspects of the data to be counted that would otherwise be invisible. As a first step into the data, a word frequency list is invaluable. While the words at the top of a frequency list are usually grammatical rather than lexical words (see for example, Leech, Rayson & Wilson, 2001), they can still tell us much about a corpus. In this study for example, the different position of personal pronouns in each DMG on the frequency list was an indication of the nature and stages of the DMGs and on closer inspection revealed insights about the differences in putting 'fact' or opinion centre stage at different stages, as well as the collaborative nature of the Problem Solving DMG in contrast to the oppositional nature of the Debating DMG (see Chapters 6 to 8 for details).

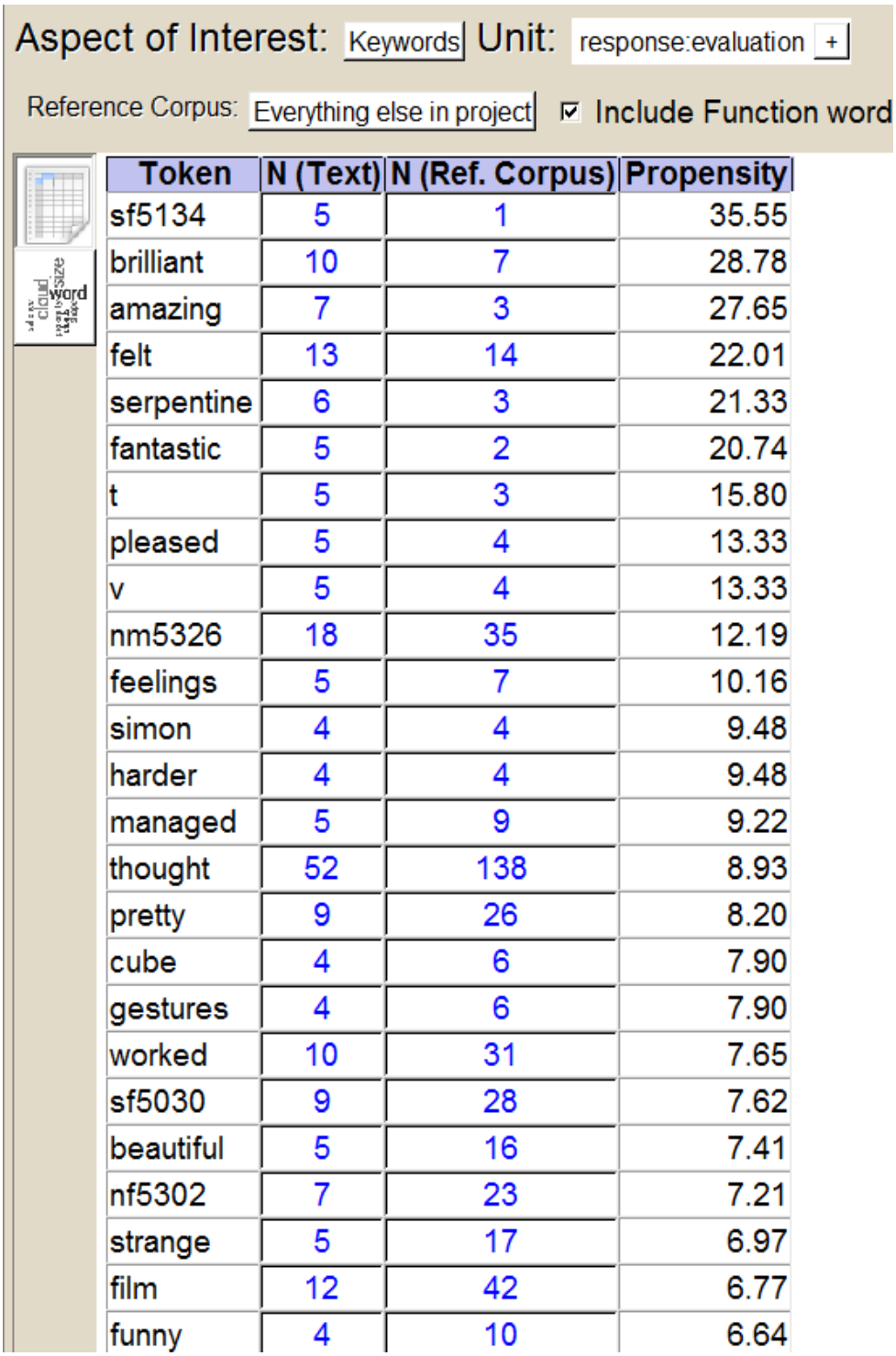
As well as investigating differences across entire DMGs, UAM CT also allows the selection of individual stages in a DMG so the word frequencies can be compared across stages.

4.3.3.3 Keywords

Keywords, as noted by Scott (1997, 1999), are words which are unusually frequent in a genre compared to their normal frequency in the language. They are used in corpus studies to show the distinctive lexis of a register or genre. Because this study is interested in the language of the DMG stages, keywords of the individual stages were investigated. The remainder of the corpus is used as a benchmark. This is done, rather than using an external corpus of general English or conversational English, because the focus here is not on how the language in each DMG or stage differs from general English, but how it differs from other seminar talk. The software compares wordlists from both the corpus being investigated, in this case the stage within a DMG, and the reference corpus. Relative frequencies of the words are compared, thus those that have a high frequency in both texts (for example grammatical items such as prepositions will not be key).[21]

In UAM CT, keyness is termed ‘propensity’ and appears as a propensity score in the keyword lists included in this thesis. An example of how keywords are shown in UAM CT is shown in the screenshot of keywords from the Responding – Evaluation stage in Figure 4.5.

[21] The key words are calculated automatically using UAM Corpus Tool



Token	N (Text)	N (Ref. Corpus)	Propensity
sf5134	5	1	35.55
brilliant	10	7	28.78
amazing	7	3	27.65
felt	13	14	22.01
serpentine	6	3	21.33
fantastic	5	2	20.74
t	5	3	15.80
pleased	5	4	13.33
v	5	4	13.33
nm5326	18	35	12.19
feelings	5	7	10.16
simon	4	4	9.48
harder	4	4	9.48
managed	5	9	9.22
thought	52	138	8.93
pretty	9	26	8.20
cube	4	6	7.90
gestures	4	6	7.90
worked	10	31	7.65
sf5030	9	28	7.62
beautiful	5	16	7.41
nf5302	7	23	7.21
strange	5	17	6.97
film	12	42	6.77
funny	4	10	6.64

Figure 4.5 Screenshot of keywords function on UAM Corpus Tool

UAM CT calculates the ‘propensity’ of a word by working out the relative frequency of a term in a subcorpus of interest, in the case above, the Evaluation stage in the Responding DMG, divided by the relative frequency of the term in the reference corpus (the remainder of the study corpus). Relative frequency is the count of the term in the subcorpus divided by the number of terms in that subcorpus. So, in the keyword list above, *brilliant* occurs 28 times as often in Evaluation stages as in the reference corpus. The identification codes (for example, sf5134) are ‘noise’ and are ignored (see Section 4.2.3).

As noted above, the benefit of UAM CT in this keyword analysis is that it allows comparisons of annotated sections. This means that keywords of stages and DMGs can be compared.

Where less than 20 instances of the term occur in the combination of the two subcorpora, the keyness value is decreased in relation to how much less than 20 the count is: if there are 10 hits, the keyness is halved, if 15, reduced by 25% etc. (O'Donnell, 2008).

So looking at the key wordlist in the stage above shows that this stage is ‘about’ evaluative meanings when compared to the rest of the corpus. Although a seemingly obvious point, this example was chosen to best demonstrate the use of keywords. These types of meaning and exactly how they are expressed can then be explored in context.

4.3.3.4 N-grams

Another type of word list used in the study is a wordlist of a string of words recurring together. Strings of words recurring in a text have been variously called clusters (Scott, 1997); chunks (O’Keeffe, McCarthy & Carter, 2007); formulaic sequences (Wray, 2002); lexical bundles (Biber, Conrad & Cortes, 2004) and n-grams (Milton, 1999). This study prefers to use the term ‘n-gram’ because of the ability to specify the

length of the string in the term (by replacing the letter ‘n’ with a number). Although sometimes defined as needing to occur a minimum number of times per million words, for example from 10 (Simpson-Vlach & Ellis, 2010), others using smaller corpora have found fewer occurrences of useful phrases. For example, Nesi and Gardner used a cut-off point of 5 occurrences in 5 texts for their n-gram list in their personal development planning texts in the BAWE corpus of student writing (Nesi & Gardner, 2012). As noted by various researchers looking at different genres, n-grams are useful as they can highlight genre-specific or framing discourse rather than topic-specific characteristics. Nesi and Gardner note how n-grams are useful as they ‘often reveal underlying concepts and functions shared by groups of texts’ (Nesi & Gardner, 2012, p. 15). For example, n-grams are particularly useful for investigating evaluative language (Römer, 2008). In other words, while the keywords can tell us about the field of a text, n-grams can give us an indication of the tenor.

4.3.3.5 Concordances

Another technique used in the study is examining concordances. A concordance can be described as a word or phrase shown in its immediate context. An example of this function was given in Figure 4.3 above using the search term *video*. Concordancing is used to investigate in further detail results that emerge from keyword or frequency investigations as outlined above. One example of this was *I mean* which had a high frequency of use in the Counter stage. On investigation, it transpired that this wording is often used to signal that disagreement is about to follow, as in the examples in Table 4.9.

Table 4.9 Examples of *I mean* to signal disagreement – Counter: provide

e.g.	speaker: transcript	file ref
1.	s*: I mean* obviously there weren't advertisements in the papers in the same way er but ...	ahsem008pg

e.g.	speaker: transcript	file ref
2.	t:I don't *I mean* I'm not su-, *I mean* I think technically you're right but on the other	ahsem010pg
3.	s:but *I mean* how obvious was that it he was going to die if I push someone off a moving vehicle	ssem006ug
4.	t: what about this adult thing *I mean* you say that adults learn there is a norm is it not the case	ssem007ug
5.	t: well *I mean* you you say partner turnover is a function of frequency of sex then cause it is that the implication you're just having so much sex you're ready for someone else much much quicker is that the implication then I'm not sure about that but it do go on	ssem007ug

Currently, UAM CT does not allow for concordances to be sorted left and right according to the node word as is common in some other corpus tools, for example, Wordsmith Tools. However, due to the small number of concordances generated in this project, this was not a major problem, and the concordances could be further investigated or categorized manually.

4.3.3.6 Corpus searches

UAM also allows searches so that strings can be searched for, across the corpus as a whole, or in particular stages. This feature was useful in a variety of ways. When, for example, it was noted that say*ing* was particularly prominent in the Interpretation stage to express a meaning that an author or a film was trying to get across, all *ing* forms of verbs could be searched for using the search string *ing@verb, to see what if any other verbs were used in this context and also what for. The results of this search can be seen in Chapter 7 about the Responding DMG, however a screenshot with a summary of results is shown below.

The following screenshot shows how the search was conducted.

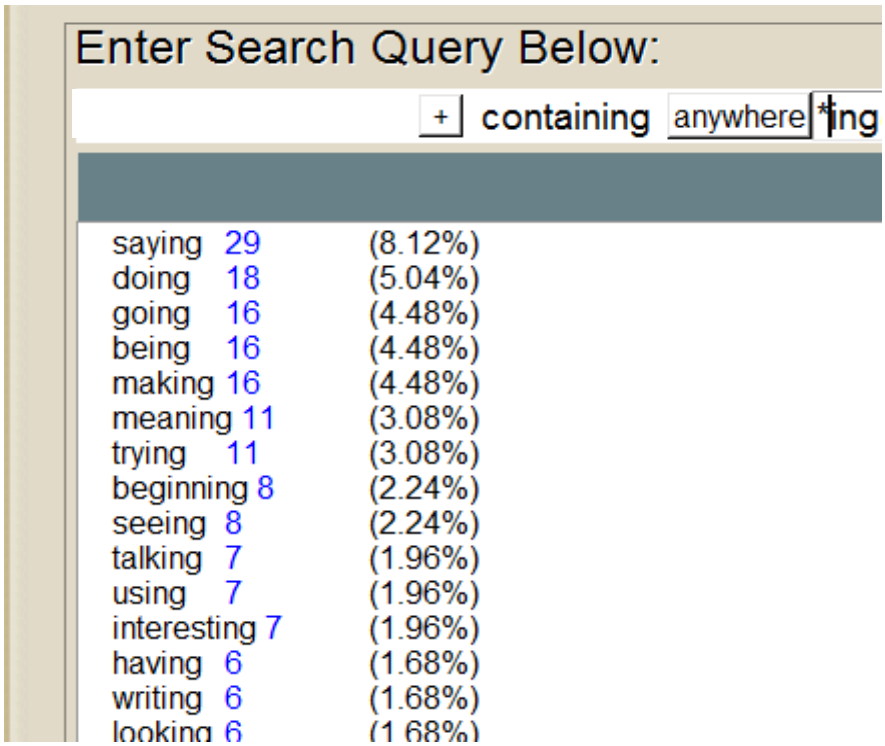


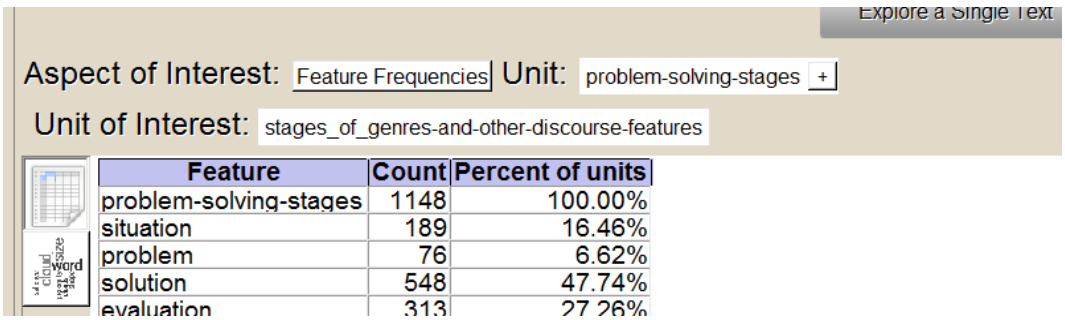
Figure 4.6 **ing* search string

While some of the expressions used to show interpretations may have been apparent merely through looking at frequent phrases, for example, *he's saying it's a futile division*, others were only highlighted through the exploration of grammatical forms using the UAM search function for example*, he's exposing the masculine stereotype.*

A full list of possible searches is not provided here but other relevant searches are included in the results chapters for each DMG.

4.3.3.7 Frequency of stages

The 'feature frequencies' option in UAM allows the frequency of the stages in each DMG to be investigated. Frequency of stages in the Problem Solving DMG is shown in the following screen shot:



Feature	Count	Percent of units
problem-solving-stages	1148	100.00%
situation	189	16.46%
problem	76	6.62%
solution	548	47.74%
evaluation	313	27.26%

Figure 4.7 Feature frequencies function in UAM Corpus Tool

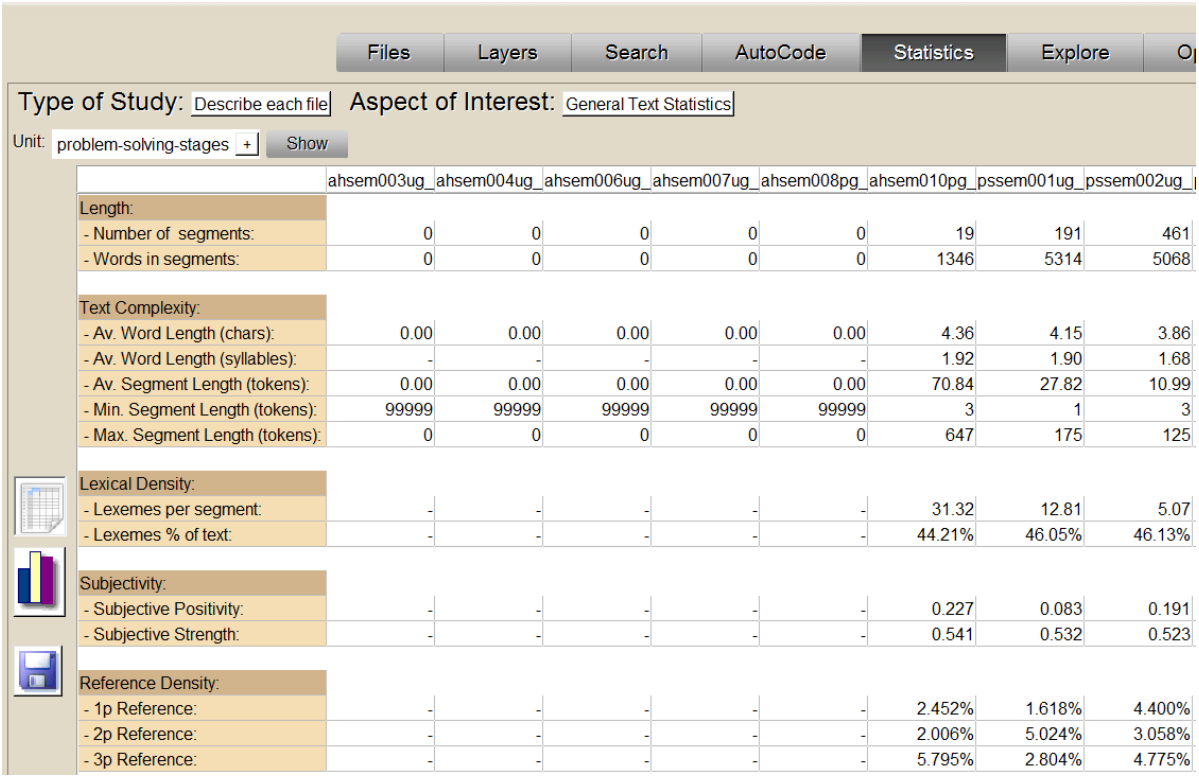
4.3.4 Step 3. Comparing semantic and lexicogrammatical patterns of DMGs across disciplines

Within each DMG, salient features in the individual stages are compared across the disciplines to see if there are similarities or differences. This was done using the various techniques noted in step 2 above (4.3.3), as well as by looking at smaller numbers of texts in their entirety.

4.3.5 Step 4. Comparing distribution of DMGs across the disciplines

A comparison of the distribution of the DMGs across the corpus was carried out using the statistics pane in UAM CT. The word counts for the DMGs rather than frequencies of DMGs were used, as the DMGs are of varying lengths. That is, the amount of discussion per 1000 words comprising of a DMG was calculated rather than the number of DMGs counted in order to compare the salience of DMGs in each

discipline. The screenshot below shows the UAM CT general text statistics pane, showing data for the Problem Solving DMG by file.



	ahsem003ug_	ahsem004ug_	ahsem006ug_	ahsem007ug_	ahsem008pg_	ahsem010pg_	pssem001ug_	pssem002ug_
Length:								
- Number of segments:	0	0	0	0	0	19	191	461
- Words in segments:	0	0	0	0	0	1346	5314	5068
Text Complexity:								
- Av. Word Length (chars):	0.00	0.00	0.00	0.00	0.00	4.36	4.15	3.86
- Av. Word Length (syllables):	-	-	-	-	-	1.92	1.90	1.68
- Av. Segment Length (tokens):	0.00	0.00	0.00	0.00	0.00	70.84	27.82	10.99
- Min. Segment Length (tokens):	99999	99999	99999	99999	99999	3	1	3
- Max. Segment Length (tokens):	0	0	0	0	0	647	175	125
Lexical Density:								
- Lexemes per segment:	-	-	-	-	-	31.32	12.81	5.07
- Lexemes % of text:	-	-	-	-	-	44.21%	46.05%	46.13%
Subjectivity:								
- Subjective Positivity:	-	-	-	-	-	0.227	0.083	0.191
- Subjective Strength:	-	-	-	-	-	0.541	0.532	0.523
Reference Density:								
- 1p Reference:	-	-	-	-	-	2.452%	1.618%	4.400%
- 2p Reference:	-	-	-	-	-	2.006%	5.024%	3.058%
- 3p Reference:	-	-	-	-	-	5.795%	2.804%	4.775%

Figure 4.8 UAM CT text statistics pane

4.3.6 Limitations of analysis

Throughout the analysis of the results and any interpretations of these results, I kept in mind the fact that corpora cannot be exhaustive and they do not provide negative evidence (Sinclair, 2005). So for example, just because a particular DMG was not found in a particular discipline area in the study corpus, this does not mean that the DMG does not exist in this discipline area. As noted by McEnery, Xiao and Tono. (2006):

> findings based on a particular corpus only tell us what is true in that corpus, though a representative corpus allows us to make reasonable generalizations

> about the population from which the corpus was sampled. Nevertheless, unwarranted generalizations can be misleading. (p. 121)

As well as the limitations with the corpus analysis, there are certain limitations of the genre classification used in identifying the DMGs. As noted by critics of the genre tradition, and those working within the tradition, there is a danger of attempting to be too precise:

> Attempting to be too precise can lead to overinterpretation, tidying up the interaction in ways that may mask the phenomenon we are trying to investigate. Participants in discussion do not operate with clearcut notions of neatly packaged claims for which evidence can be marshalled to one side or other as corroborating or countering. This is what the analyst is concerned with, not the participants. Categories of functional analysis are necessarily a simplification of what is a much more fluid exchange of ideas that may be only half-formed, in a context where participants are concerned about interpersonal roles and relationships as well as ideational content. (Coffin et al., 2012, p. 21)

For this reason the categories for the DMG stages were kept as broad as possible, and although it would have been possible, for example, to further categorize the Debating DMG stages as rebuttals or countering evidence or agreement, this level of delicacy was not required for the pedagogical outcomes of this thesis and was not attempted. Rather the categories were kept broad enough to allow common grammatical features to emerge (for example the ‘justifying’ in the Argument stage – see Chapter 6 for a discussion of this).

4.3.6.1 Reliability of DMG classification

In order to ensure coder reliability as far as possible in the qualitative annotation process, I annotated the discussions and allowed at least two months to lapse before returning to the data set to see if the same classifications were identified. While not an ideal situation, this does allow for problematic sections to be identified and checked. Unfortunately it was not possible to have the coding checked by another researcher.

4.3.6.2 How many instances counts as a DMG?

As noted by Thornbury and Slade (2006):

> it is not enough of course to identify a single chunk in a single text; for a chunk to be considered generic, it must occur with sufficient regularity and consistency across a range of texts distributed among a representative sample of members of the same discourse community. This means that the analysis must draw on a representative corpus of texts, identifying those chunks that seem to share similar features. (p. 162)

This study only recognizes as DMGs those chunks of talk with the characteristics in the definition by Martin and Rose (2008) and that also appear regularly in the seminar discussions. For the purposes of this project, each of the DMGs identified occurs at least 6 times, and in more than one seminar, although the study works with word counts of DMGs rather than number of occurrences in order to be able to normalise for comparisons.

By complementing qualitative methods with corpus techniques within the framework of SFL theory, I was able to explore useful areas of language within the scope of the project. Although whole theses have been written on a particular metafunction in speech or whole books on one particular aspect of one metafunction, this project investigated more than one metafunction as this is the approach that best allowed me to answer my research questions about the nature of seminar discussion across the disciplines and to achieve the practical outcomes of my project.

4.4 Chapter conclusion

This chapter has outlined the research design from a theoretical and practical perspective. It has detailed how corpus techniques were integrated with a framework based on SFL genre theory to explore the data. This SFL genre framework allows chunks of talk or DMGs to be identified that share a similar purpose and staging. These DMGS are then grouped and explored and compared in two directions using corpus techniques as well as qualitatively. The usefulness of the approach has been

explained, and limitations with the data set and with the analysis have been discussed. The next four chapters turn to the results of the investigation.

Chapter 5
Makeup of the seminar corpus – a brief overview

This first results chapter gives a brief overview of the results and presents quantitative results of investigations into the makeup of the entire corpus on a macro level. This is followed by three chapters, presenting results of the three main DMGs identified in the corpus (Debating, Responding and Problem Solving) and framing them in relation to previous literature on similar interactive academic discourse or 'parallel' monologic written genres. The findings from each of the DMGs are then drawn together and discussed in detail in Chapter 9. The aim of the research and the specific research questions are reiterated below for ease of reference and as they will be referred to through the course of this section.

The aim of this thesis is to compare the discourse of seminar discussions across the disciplines in HE in the UK setting. The study highlights macro and micro patterns in the seminar discussion across the disciplines according to function, with implications for EAP speaking skills pedagogy and materials design.

My main research question is:

1. What are the characteristics of seminar discussions across the disciplines?

In order to investigate this, the following sub-questions were investigated:

2. Which DMGs are used by participants in academic seminar discussions in the BASE corpus of seminars, recorded at two British universities?

3. What is the distribution of DMGs across the disciplines in the corpus?

4. What stages comprise each DMG?

5. What are the key language features of the stages in the DMGs?

6. How are the DMGs manifested similarly or differently across the disciplines within the corpus?

In this chapter, six different types of discussion or Discussion Macro Genres occurring in the corpus are briefly presented. The DMGs identified are Debating, Problem Solving, Responding, Explaining, Describing and Organising. The chapter directly addresses research questions 2 and 3 about the DMGs that make up the corpus and about their distribution across the corpus.

Three of these six DMGs accounted for the majority of discussion (79%) and were therefore investigated in detail. These three main DMGs are Problem Solving, Responding, and Debating. Chapters 6, 7 and 8 deal with each of these main DMGs in turn, answering research questions 4 and 5 about the stages and key language features identified. The chapters also address question 6, outlining shared and different characteristics across the three disciplinary subcorpora, again relating back to the main research question, in order to identify what the results can tell us about the characteristics of discussion across the disciplines in the corpus.

This chapter starts with an overview of the makeup of the seminar corpus. In the following table, the six DMGs identified are presented in terms of their function, and their individual stages and examples are given. This is followed by quantitative data from the macro analysis.

Table 5.1 DMGs in the seminar corpus

DMG	Examples from corpus	Stages	Social purpose
Problem Solving	Legal problem (Law), problem exercise (Chemistry), How to tackle environmental problems caused by industrialisation in the third world (Political Sciences).	Situation Problem Solution Evaluation	To provide a solution to a problem
Responding	Response to artwork (History of Art), Response to teamwork event (Chemistry)	Description Evaluation Interpretation	To provide a personal response to and interpretation of an event or artefact
Debating	Debate on whether the Cuban Revolution was a success or a failure (Comparative American Studies), Debate about whether territoriality and sexual behaviour in humans are inbuilt or not (Psychology)	Issue Argument Counter Evidence	To discuss opposing sides to an issue
Explaining*	Explaining the marketisation of medicine (History)	Main statement sequence of explanations	To explain an object of study
Describing*	A description of sponsorship (Theatre Studies)	Main statement sequence of descriptions	To describe an object of study
Organising*	Engineering project meeting seminar	Overview of work to date Sequence of planning stages Close	To allocate work/ decide what work needs to be done when, and by whom

*Because these three minor DMGs are not investigated in detail in the study, the stages put forward here are only preliminary, but would certainly be subject to further modification on exploration of further data.

The six DMGs accounted for 95% of the total discussion data. The remainder of the discussion data was made up of talk that did not have predictable staging, and as such parallels the 'chat' sections of casual conversation (Eggins & Slade, 2005). This talk was termed 'other'. It forms part of the discussion, that is, it occurs in the section of the seminar where the tutor has opened the floor for discussion, but cannot be assigned to a DMG. This included sections of discussion with purely interpersonal motivations, such as the following comments on a student's hair.

Extract 5.1 'Other' – *shocker*

turn	speaker: transcript
1.	Tutor f: you've got totally different coloured hair
2.	Vince: show us the hair go on
3.	Tutor f: it's just
4.	Vince: shocker
5.	Tutor f: yes I just noticed **okay well** I think what we should do is …

ahsem006ug

Sections such as that above are often clearly delineated, as here by the discourse markers *okay* and *well*, signalling the move out of or back to the seminar discussion proper. While these data are obviously of interest in their own right, they are not the focus of the present study, and not investigated in detail.

The results of how the six different types of DMG are distributed across the corpus are now presented.

Results: raw data

Table 5.2 shows raw frequencies from the corpus in terms of tokens. So for example, looking at the first column (AH) it can be seen that 952 tokens of the Arts

and Humanities subcorpus were made up of the Describing DMG. In the right hand column (total), the total tokens for each of the six DMGs are given.

Table 5.2 Type of discussion: raw word counts across the corpus

Discipline area / DMG or 'other' (non DMG)	Arts and Humanities	Social Sciences	Physical Sciences	All discipline areas
Problem Solving	3,028	10,036	24,251	61,566
Responding	29,258	524	14,200	58,182
Debating	23,932	24,716	0	48,648
Organising	1,223	1,249	8,435	19,342
Explaining	7,267	4,218	2,152	15,789
Describing	952	317	0	1,269
'Other' discussion	2,166	3,909	1,867	9,809
Total discussion	**67,826**	**44,969**	**50,905**	**163,700**

From Table 5.2 it can be seen that Problem Solving accounts for the greatest proportion of discussion, at a total of just over 60,000 words. Responding and Debating also make up a large proportion of discussion, at 58,182 words and 48,648 words, respectively. The remainder of the discussion is made up of the three Discussion Macro Genres, Explaining, Describing and Organising, and also of 'other' discussion.

Had the total discussion in the three disciplinary subcorpora been equal, this representation of the data would have painted a clear picture of discussion type across the disciplines in the corpus. However, as noted in Chapter 4, because the discussion corpora are of different sizes, it was necessary to normalise the data. In what follows, the normalised results are presented.

Normalised results

The normalised results for each DMG across the corpus, as well as 'other' discussion, are shown in Figure 5.1.

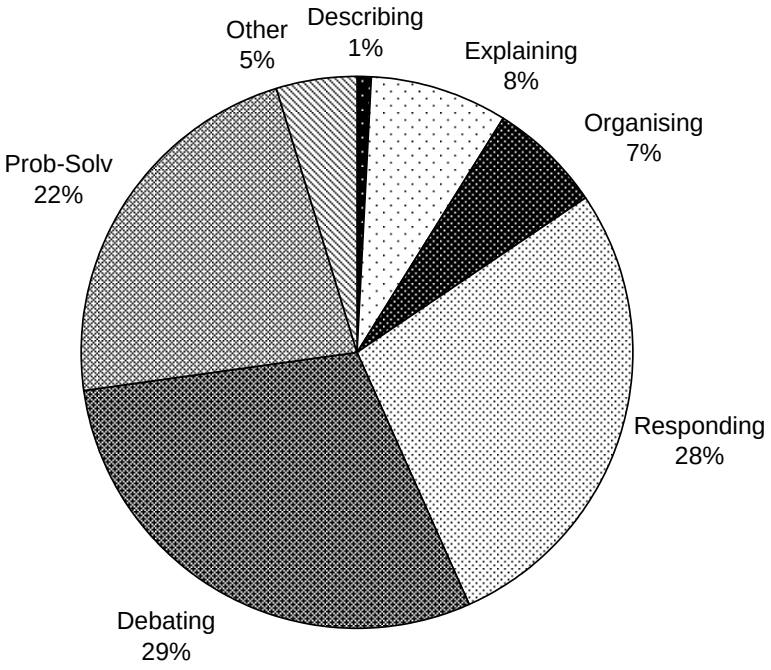


Figure 5.1 Make up of seminar discussion

As can be seen from the above chart, the three DMGs which accounted proportionally for most of the discussion in the seminar corpus were Debating, Responding and Problem Solving, accounting for 29%, 28% and 22% of the discussion respectively. The remainder of the talk was made up of the three macro genres, Explaining, Describing and Organising, as well as 'other' talk.

Next, the distribution of these DMGs across the different disciplinary subcorpora, SS, AH and PS, is presented.

5.1 DMGs across the disciplines

Figure 5.2 shows the proportion of each disciplinary area made up by the three main DMGs. Because of the predominance of these three DMGs in the data, the micro analysis in the remainder of this section focuses on these three DMGs and only they are included in the remainder of the results and analyses presented.

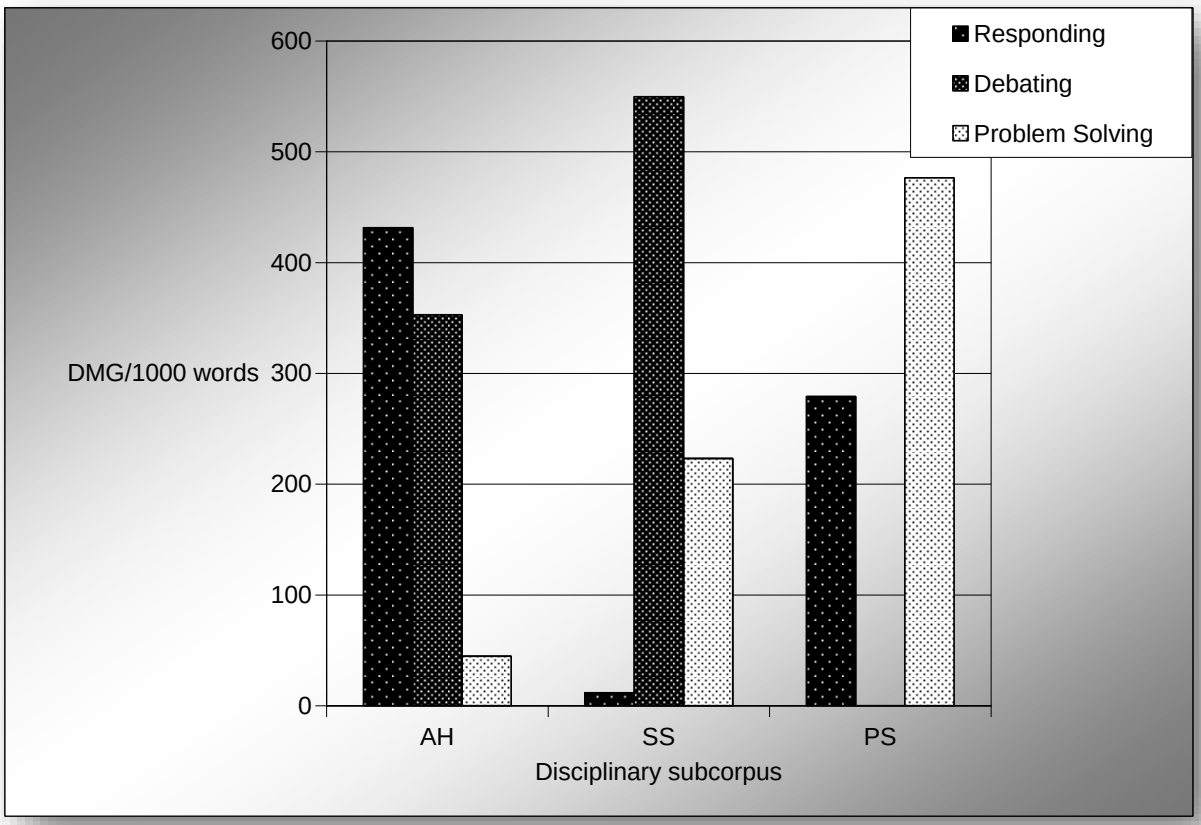


Figure 5.2 The three main DMGs across disciplines

It can be seen from the chart above that the occurrence of the three main DMGs varies greatly across the disciplines. Although Debating is the largest macro genre

overall, it does not occur at all in the PS sub corpus. In the AH sub corpus, it is secondary to Responding. Problem Solving, which made up the biggest proportion of discussion in the PS sub corpus (47%), made up only 22% and 4% of discussion in the SS and AH subcoropora respectively. Responding, highest in the Arts and Humanities, was also high in the Physical Sciences at 28%. In the Social Sciences, Responding accounted for only 1% of the discussion, occurring in an evaluation of the course.

This chapter has given an overview of the functional makeup of the seminar corpus on the macro level, showing that the majority of the discussion can be ascribed to a DMG, and that three main DMGs, Debating, Responding and Problem Solving, account for the majority of the seminar discussion, with each disciplinary subcorpus being made up of predominantly two of these three main DMGs. Each of the following chapters in this section deals with one of the three main DMGs identified. Firstly, the social purpose, stages and moves of the different DMGs are set out. Then, data from the corpus is used to show how the DMGs are realised linguistically and how they are elicited. The main themes emerging from investigations into each DMG frame each of these chapters. In presenting the results of investigations there is a focus on the stages and moves which are more useful for pedagogical purposes. These stages and moves are where students can contribute to the disciplinary ‘core’ of the discussion or where the DMGs are signalled.

Chapter 6
Debating DMG

This chapter presents the results of investigations into the Debating Discussion Macro Genre. Firstly, a summary of the Debating DMG is given along with an example. Then, quantitative data about the distribution of Debating first introduced in Chapter 5 is presented here in detail. The chapter also presents the features that combine to make up this DMG. The four stages making up Debating – Issue, Argument, Counter, and Evidence – are presented, and an overview of their functions and frequency given. The linguistic manifestation of the stages is then set out in detail along with the questions that seem to prompt this DMG.

6.1 Debating DMG: summary and overview of quantitative data

The starting point for discussion when the Debating DMG occurs is the opposing sides of an issue. The possible views are set out in the question for discussion or in tutor prompts: for example, *Was the Cuban Revolution a success or a failure?*. The social purpose is thus to discuss the opposing sides to an issue. Without the opposing sides, the predictable functional staging of the Debating DMG does not occur. Debating is comprised of four stages: Issue, Argument, Counter, and Evidence, with Argument and Counter being the obligatory stages. In other words, if the Argument and Counter stages are not present, the social purpose of the Debating DMG is not fulfilled. Though the stages are not entirely predictable in their ordering Issue occurs near the beginning of a Debating text and Argument generally precedes Counter (often with various stages in between). Though often Evidence follows Argument or Counter, it sometimes precedes it as shown in the examples in this chapter.

Table 6.1 provides a summary of the Debating DMG, following which detailed results of the investigations into this DMG are given.

Table 6.1 Debating DMG summary

Social purpose:	to discuss opposing sides to an issue
Stages:	Issue, Argument, Counter, Evidence
Examples from corpus:	Debate on whether the Cuban Revolution was a success or a failure (Comparative American Studies); Debate about whether territoriality and sexual behaviour in humans are inbuilt or not (Psychology)

Though Debating accounted for a large proportion of the discussion, 28% in total and occurring in 9 of the 17 seminars[22], it occurred in only two of the disciplinary areas, Arts, and Humanities and Social Sciences. It did not occur at all in the Physical Science sub corpus. The table below shows how the Debating DMG was distributed across the disciplinary subcorpora.

[22] Appendix 2 shows the different DMGs in each seminar

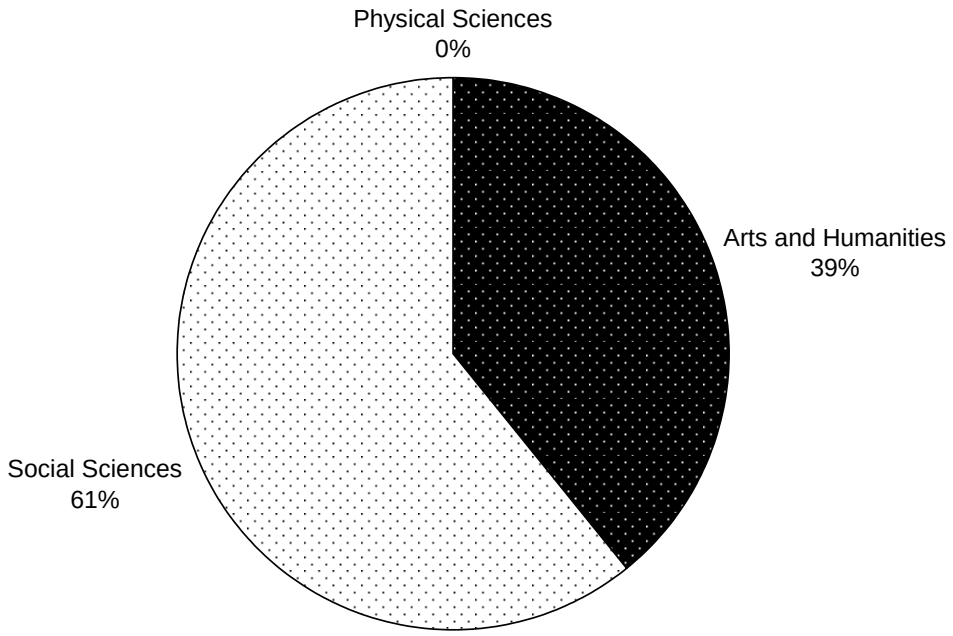


Figure 6.1 Debating across the disciplines

As can be seen from Figure 6.1, Debating was most apparent in the Social Sciences subcorpus, where it accounted for a total of 61% of the discussion. In the Arts and Humanities subcorpus, although it did occur, it accounted for less than half of the total discussion. An extract from a Debating DMG is given below.

Extract 6.1 is from an AH seminar (Comparative American Studies). The tutor has set up a debate by splitting students into two groups to discuss the success of the Cuban Revolution. The discussion begins with the students in separate groups, (one ‘success’ group and one ‘failure’ group); the extract below forms part of the whole class discussion.

Extract 6.1 Debating: *Revolution*

turn	speaker: transcript	Stage: move	notes
1.	Jeff: okay so basically we decided that according to the initial aims that we thought the revolutionaries had when they first came into power in nineteen-fifty-nine er seems to have been a failure er one of the main aims they seem to have had was to restore democracy to restore the constitution of nineteen-forty nineteen-forty	Argument: provide	The revolution was a failure according to its aims. One aim was to restore democracy. This aim has failed.
2.	Louis: yeah		
3.	Jeff: er and to restore democracy but that hasn't happened		
	er you know elections weren't called er Batista was a dictator but Fidel Castro has ended up you know on similar lines there's been political repression censorship	Evidence: provide	Evidence for democracy failing.
(…) *Further stages about the success of the revolution before the tutor prompts the opposing argument:*			
4.	Tutor f: good well I think before without further ado I think we should move on to the success side and then I think we can have a bit of a cross discussion and see if we can come to any kind of synthesis at the end okay	Counter: elicit	Tutor elicits ideas from ‘success’ group.
5.	Paul: I just want to say that you said er I think the first thing you said was one of the first things you said was that you can't judge the Cuban Revolution because it's still going on and then you went on to say but it's failed in its aims and that kind of seems to disagree with itself what I was thinking was if its aims were like it it hasn't	Counter: provide	Repetition of argument before going on to disagree with it. Two students contribute to this Counter stage.

met the aims that it set out to originally but I think its re-evaluating those aims continuously as the revolution is still going on and I think a good metaphor for that would be if it aimed to win by two goals to nil in the beginning and it still only wins by one goal to nil that's still a victory you know what I mean it's just not in the style they wanted to begin with

6. Tom: you got to look you got to look at outcomes as well not what they set out not what they actually said that's not what you've got to judge the revolution on you've got to judge the revolution on the impact it's had on the people not what the impact it's had on the original aims you can't I mean yeah that's a useful historical exercise but the important thing to look at is the success in terms of outcomes not aims

Though not all the context of this extract from the Debating DMG is given, the brief example above serves to demonstrate the type of discussion categorised as Debating, where students put forward opposing views on an issue.

6.2 Debating: stages and moves

Here, the stages and moves of the Debating DMG are set out in detail and exemplified. The frequency of stages is also given.

Table 6.2 shows the stages and moves present in the Debating DMG and the moves that a speaker can make within each stage. The obligatory stages (Argument and Counter) are defining of the genre. As noted in Section 4.3.2, without the obligatory stages, the social purpose of the DMG cannot be fulfilled. Obligatory stages are not bracketed in the table. Optional stages are bracketed (Issue and

Evidence). The social purpose of the genre (putting forward different sides to an issue) can still be fulfilled without the optional stages and resulting moves.

Table 6.2 Stages and moves in the Debating DMG

Stages	Moves
(Issue)	Issue: elicit
	Issue: provide
Argument	Argument: elicit
	Argument: provide
(Evidence)	Evidence: elicit
	Evidence: provide
Counter	Counter: elicit
	Counter: provide

Descriptions and probes for each stage, and probes and examples for each move are provided in Table 6.3.

Table 6.3 Debating: stages, moves, probes and examples

Functional stage* ***& description***			
probe	Move	examples **	_file ref[23]
Issue ***Presentation of issue to be debated***			
Asks the question: What is the issue to be debated?	Issue: elicit	sm: (…) I'd like to ask a question on that er on Patterson's argument on constructivism where he says that it's a collective understanding on the material world and states er or the elite er elitist states developing intersubjectively set of norms is that linked to norms or is that also in Patterson's view does that also comprise standards and then to come back to Jim's point start who are supposed to er is it is it the elitist states that are supposed to impose those standards and to enforce those standards and norms or is it going to be global governance framework kind of thing like can	

[23] The file references are shown at the end of an extract.

		you elaborate on that_sssem005pg
Answers the question: What is the issue to be debated	Issue: provide	Tutor f: what I would like to do is to tackle head on what I think is the the big debate about the Cuban revolution I think as I said in the lecture the Cuban revolution is something which in the reading and in life as well is attracted very polarized and widely different sorts of responses as I said in the lecture the people think the Cuban revolution was the best thing that ever happened that it was the most wonderful achievement and triumph of social justice and liberty and nationalism and the people of Cuba terrible terrible horrible dictatorship that continues to blight the hemisphere and that question whether the Cuban revolution was good or bad whether it was a success or a failure or a failure whether it was a disaster or triumph is something that runs through all the reading_sssem005pg
Argument ***A stance on a particular issue***		
Asks the question: What are your	Argument:	Tutor m: right first question is er whether er or not er it's reasonable to make

views on the issue?	elicit	somebody er an accomplice criminally liable if er they have a power to prevent the crime but fail to do so as in the case between DuCross and Lambourne what do you think_sssem006ug
Answers the question: What is your view on the issue?	Argument: provide	sm: okay so basically we decided that according to the initial aims that we thought the revolutionaries had when they first came into power in nineteen-fifty-nine er seems to have been a failure_ahsem003ug
(Evidence) ***Evidence to support an argument***		
Asks the question: what evidence supports your argument?	Evidence: elicit	Tutor m: but is there is there is there is there actually evidence that actually being unemployed are you familiar with this I gave you or from what you know or maybe you've known people who are unemployed as well so you can bring in both experiential and a kind of social science evidence here but actually unemployment has a is a causal link to early mortality amongst people that are at retirement age_ssem003pg
Answers the question: what evidence supports your argument?	Evidence: provide	sf: you could look at the amount of industrial accident accidents that there were_sssem008ug

Counter ***Opposing position to a previous argument or rejection/ refutation of previous evidence***		
Asks the question: what is your opposing view on the issue?	Counter: elicit	Tutor m: good well I think before without further ado I think we should move on to the success side_ahsem003ug
Answers the question: what is your opposing view on the issue?	Counter: provide	sf: you talk about the increasing involvement of women and you know different organizations and youth and all this kind of stuff [but at the same time there's so much evidence to suggest that the trade unions were so many of the trade unions were governed or like were influenced by the government they had so much control over the trade unions over private institutions over you know] so they weren't completely free to put their point across_ssem002ug

* Optional stages shown in brackets ** *Additional context is shown in square brackets [.]*

Table 6.4 shows the frequency of these stages in the corpus.

Table 6.4 Frequency of Debating stages

Stage	Total number of stages
Issue	16
Argument	367
Counter	125
Evidence	378

While the Counter stage is present in all the examples of the Debating DMG, with a total of 125 occurrences, it is much less common than the Argument (365 occurrences) and Evidence stages (378 occurrences). The above low levels of Counter stages echoes findings from previous research on online argumentation (for example, Jeong & Joung, 2007; Coffin et al., 2012), that students tend to make and support claims more often than they counter or challenge them. Issue is the stage that occurs the least (16 occurrences in 5 files). This is often because an issue has been given to the students before the class, and an issue need only be set out once for the other Debating stages to proceed.

Having outlined the function of the Debating DMG, its distribution across the corpus, and the function of the different stages which comprise it, the next section describes the key language features of this DMG.

6.3 Debating: linguistic realisation

6.3.1 Issue stage

While there are only 16 occurrences of the issue stage, these stages tend to be rather long. They all involve the tutor setting out the issue to be discussed, and occur near the beginning of a new stretch of discussion which can be identified as

Debating. Although the prompts that elicit the Argument stages tend to be polarized and offer only two possible options (discussed in more detail in section 6.3.2), in the Issue stage, the explanation of issues is more nuanced, setting out various different views, or the background to what will be debated. Once the issue has been set out, the debate commences without the need for the issue to be repeated. The Issue stage is different to the Argument: elicit move, as in the Issue stage the tutor is setting out the issue without yet asking for a response, and as such it could be said to act as a mini lecture.

Because of the small number of Issue stages, and the fact that it is largely the tutor who provides this stage, the Issue stage was not investigated in detail. As stated previously, the aim of this thesis is to characterise seminar discussions across the disciplines for pedagogical purposes, and thus resources available for meaning making for students are important. The micro analysis therefore focuses more on the stages which constitute the bulk of the discussion in this DMG and where students have more opportunities to participate – Argument, Evidence and Counter. The next section deals with the linguistic manifestation of the Argument stage.

6.3.2 Argument stage

Results of the analysis of the Argument stage show that the speaker's position relative to a proposition is important, and that speakers use devices to express their views while leaving room for disagreement. The speaker is highly visible in this stage and the linguistic features point to the high stakes of the Argument stage. These features are outlined below, but first, the questions prompting the Argument stage, and often the entire discussion, are provided and their common features highlighted.

The table below exemplifies Argument: elicit moves with the key language features shown in the right hand column. These features include closed questions (questions with a limited number of answers from which interactants can choose) and

mental processes (process types that ‘project’ inward such as *thinking)*[24]. Relevant features are italicised.

[24] See Appendix 8 for an overview of process types in SFL theory.

Table 6.5 Example Argument elicits

e.g.	speaker: transcript	file ref	Key language features
1.	t: Do you *think* it's reducing competition or not	sssem003pg	closed question with mental process
2.	t: Do you *think* we're all becoming one culture	sssem002pg	closed question with mental process
3.	t: Do you *think* it's less likely that these people would be unemployed what do you think	sssem008ug	closed question with mental process
4.	t: are you saying namex that *you think* structural adjustment programmes are beneficial	sssem002pg	closed question with mental process
5.	t: I mean is liberal based marketing economics actually compatible with sustainable development	sssem005pg	closed question prompting polar position
6.	t: are are your conclusions having thought about this then that that we are rather animal like or do you *think* we are rather unanimal like in in the way we use that word territory is it *who thinks* on the whole if you had to plump one way or the other we're fundamentally beastly we're we you know we're still rather like animals in the way we we use space implied territories *who thinks* that	sssem007ug	polar positions, closed question focussing on mental process
7.	t: […] what about the developed world do you *think* the developed world also has to to change_	sssem005pg	closed question with mental process

Argument elicits are often closed questions as exemplified in Table 6.5. These closed questions show the oppositional positions available, in contrast to the more nuanced

outline of the issue in the previous stage which points to the complexity of the issues. Argument elicits often call for a speaker's point of view using the mental process *think* with the question *Do you think x or y….?* It is these types of questions that lead to the most oppositional dialogue (discussed in Section 6.3.3).

Another way of eliciting arguments is to call for a speaker's opinion, although not necessarily using a closed question. This is exemplified in the Table 6.6 Here the tutor calls for a 'follow-up' argument to build on previous arguments as is shown by the use of anaphoric reference which is either implicit or explicit (italicised):

Table 6.6 Follow-up Argument elicits

e.g.	speaker: transcript	File ref
1.	t: but what what what does everyone else feel	sssem005pg
2.	t: Jamie what do you think *on that*	ahsem008pg
3.	t: what do you what do you think *about that upon that*	ahsem008pg
4.	t: so that er did did you want to add something *to that*	sssem005pg
5.	t: have you got anything have we used up all your ideas or is there anything more to *add to this*	sssem007ug
6.	t: anything else to *add to it* though from the table	sssem008ug

In Table 6.6, the tutor calls for opinions, feelings about something, or just generally what the students think about something. Asking if students have *anything* or *something to add* as in the final two examples in Table 6.6 is another means of eliciting an argument. It can also be said that these questions are in fact elliptical versions of the original closed questions they refer back to, for example question five: *'have you got anything have we used up all your ideas or is there anything more to add to this'* refers back to the original question for debate *'is territoriality and sexual behaviour in humans inbuilt or not?'*

The Argument: elicit moves in Tables 6.5 and 6.6 specifically call for a speaker's opinion on an issue. Turning to the Argument: provide move, it is then perhaps not surprising that prominent features in this move, a response to these elicits, serve to highlight the speaker's opinion relative to the proposition. Here, the speaker often takes a stance by including, what is, according to Halliday and Matthiessen, the most overtly explicit expression of subjective modality – where the first person is included as the 'Theme'[25], that is the point of departure for the message (Halliday & Matthiessen, 2004, p. 619). An example of this is given in Extract 6.2.

Extract 6.2 *I think* as Theme

s: *I think* the revolution's failed politically_ssem003ug

In Extract 6.2, the speaker states the side of the debate that he is taking: that is, that the revolution has failed. The speaker's opinion is key to the function of the stage, and the first person *I* is thus used with the mental process *think* projecting this content as the speaker's own idea. By putting themselves 'out there', speakers need to make it clear that theirs is one of a number of possible positions; in other words, they need to use strategies that make room for dissenting voices, a prime interpersonal function of *I think.* In Hewings et al.'s (2007) study, the use of *I* as thinker was found to be not as face-threatening to peers as bald statements. This, the authors note, is because by acknowledging the personal nature of an opinion, it is left open to dispute. In fact, bald statements are less common in the Argument stage than in the Counter stages, especially where the talk becomes very heated (discussed in more detail in Section 6.3.3).

I think to project propositions as above was used overwhelmingly in this stage. This was highlighted through the corpus investigations. After *it's, I think* is the second

[25] Theme is defined in SFL as the point of departure for a message (Halliday & Matthiessen, 2004, p. 619, that is, the part of the message that is emphasised. The remainder of the message is referred to as Rheme. Capitalisation distinguishes the technical term Theme from the word theme meaning 'subject' in everyday language use.

most frequent 2-gram in this stage (occuring 9.6 times per 1000 words[26]). This is a substantially high ratio when compared both to the corpus as a whole, and to results from previous research. In the entire corpus the two word cluster *I think* is at position 3 with 4.7 occurrences per 1000 words[27] (see Appendix 2). Compared to previous research, the high proportion of instances in this stage is even more striking, highlighting the focus on opinions in this stage. Fortanet Gómez (2004), investigating MICASE, found *I think* occurred 3.2 times per 1000 words and, in investigating conversation rather than academic talk, McCarthy and colleagues' frequency lists show that *I think* occur 2.8 times per 1000 words in the CANCODE corpus[28] (noted in O'Keeffe et al., 2007, p. 69). The results from this study have parallels to Coffin et al.'s data where students mostly used *I think* to make claims (Coffin et al., 2012).

The use of the interpersonal Theme here is also in stark contrast to ideals of academic writing where novice writers may be advised to 'explicitly avoid the projection of ideas as in: *I think/ in my opinion the causes lie elsewhere* perhaps to be replaced with more objective expressions of modality such as *it is likely the causes lie elsewhere*, or with bald factual claims' (Hood, 2010, p. 1). So while 'objectivity and critique are relevant in gaining control of written academic registers' (Hood, 2010, p. 2), the spoken arguments here are not couched in such 'objective' language.

Below are examples from the corpus showing the use of *I think* to project opinions in the Argument stage.

[26] 118 occurances/ 12,247 (total word count for Argument stage) x 1000 = 9.6
[27] 960 occurrences /204269 (entire corpus word count) x 1000 =4.7
[28] 14,086 occurrences in CANCODE/ 5,000,000 x 1000 = 2.81

Table 6.7 *I think* to project opinion in Argument: provide

e.g.	speaker: transcript	file ref
1.	s: mm mm er I don't that we can put the bus the train and the cars in the same field *I think* that each of them has its own niche market	ssem003ug
2.	s: *I think* the supply is creating demand in this advertising is creating demand	ahsem008ug
3.	t: *I think* that's a it's it's not a difference that separates us from all animals	ssem007ug
4.	s: *I think* it's more likely that the people who are working class background can can become more fatalistic quickly	ssem008ug

In the above examples the speaker uses the interpersonal Theme *I think* to put forward their opinion. Different functions of *I think* have been noted by previous researchers. Fortanet Gómez (2004), in her examination of MICASE data (discussion sections of lectures), notes four: to put forward opinions, to denote uncertainty, to express politeness, to express vagueness or hesitation. However, in the examples above and in many cases in the data it is probable that more than one of the above functions is being expressed simultaneously. Obviously*, I think* is not the only form of expressing the functions. However, due to its prominence in comparison with the corpus as a whole, it investigated further.

Although it is perhaps unremarkable that students use *I think* to put forward arguments, what is more remarkable is the lack of other linguistic expressions that we might expect students to use to put forward claims. A search was conducted for opinion projecting expressions found in EAP textbooks[29]. Specifically, the terms *opinion* and *view,* common in EAP books, were searched for. Neither was found with

[29] See Appendix 14 for examples of current teaching materials.

respect to providing an argument and the only time either *opinion* or *view* is used is by the tutor when eliciting an opinion or a view as in the examples above.

Another way in which the speaker's opinion is highlighted in the Argument stage is through the use of the continuous form of either a verbal process or a behavioural process to delineate the scope of an argument or justify an argument. Verbal processes project outward, (e.g. *saying* and *asking*), and behavioural processes encode physiological or psychological behaviour (e.g. *singing* or *talking*) (Halliday & Matthiessen, 2004)[30]. The following extract exemplifies continuous uses of these process types.

Extract 6.3 Continuous verbal process in Argument: provide

> s: *yeah but I'm not saying* that you wouldn't put a logo but I just don't see why it is bad to have a logo_ahsem010pg

This function within the Argument stage was highlighted through exploring the most common forms of the verbal and behavioural processes in this stage. *Saying* appears 31 times in this stage, as shown in Appendix 5. The appearance of such verbs used in the progressive aspect was a somewhat unexpected result, as it was presumed that students would use mental processes in the simple form to discuss opinions. While this is largely the case (for example in *I think)*, these behavioural and verbal processes are an exception. For this reason, the use of these forms was investigated in the Argument stage, and shown to be used to present justifications. In the examples below, although the first person is still highly visible in each Argument, the projecting clause is not realised through a mental process as in the examples above, but a verbal or behavioural process (even though metaphorical).

The following examples from Argument stages are of the speaker defending a position put forward previously, often following a Counter stage, as will be discussed in more detail below.

[30] See Appendix 8 for an overview of process types in SFL theory with examples from the corpus.

Table 6.8 Argument: provide – Defending an opinion[31]

e.g.	speaker: transcript	file ref
1.	s: yeah but I'm not saying that you wouldn't put a logo but I just don't see why it is bad to have a logo	ahsem010pg
2.	s: no I'm not saying it's not a problem I'm just saying it's a problem that probably shouldn't be exaggerated	ahsem003ug
3.	s: I'm not justifying it I'm just saying	ahsem003ug
4.	s: we're not suggesting that	ahsem003ug
5.	s: I mean I'm not saying it's some utopian society that's perfect	ahsem003ug
6.	s: I'm not trying to label you as as being the developed world	ahsem005pg

Even the short examples above emphasise the oppositional nature of the progressive verb form used in this way in the Debating DMG. The examples in Table 6.8 show a defensive stance taken by seminar participants as they protect themselves from rhetorical attack. The verbal process *saying* was the main verb used in this form to justify or limit the scope of an argument, although other verbs are also used. Koester in her examination of workplace discourse noted the use of '*I'm just saying'* (Koester, 2006, p. 128) as one of a number of instances of metapragmatic language and explicit performatives used in disputational talk. The large number of instances of metapragmatic language specifically in the progressive form in this corpus to justify an argument or put forward a reasonable stance seems to be most prominent where the talk is most disputational in its nature as in the above examples.

Having discussed some ways in which the speakers ensure that they are present in their argument in putting forward, justifying or limiting the scope of their own opinion, whilst still allowing room for and protecting themselves from dissenting

[31] While the examples could be viewed as another level of delicacy, perhaps as a 'Defending' stage, the decision was taken to keep the stages broad enough to allow such additional functions to be explored

voices, an example Argument stage is provided below with key linguistic features from the micro analysis highlighted.

Extract 6.4 Argument stage

turn	speaker: transcript	stage: move	notes
1.	Jeff: okay so *basically* we decided that according to the initial aims that we thought the revolutionaries had when they first came into power in nineteen-fifty-nine er *seems to have been* a failure	Argument: provide	(discourse marker okay marks start of argument stage) *hedged opinions* mental process to project opinion
2.	Louis: yeah		
3.	Jeff: er and to restore democracy but that hasn't happened		

The Argument stage above comes from Extract 6.1 used at the beginning of this chapter from the debate on the Cuban Revolution. Jeff aligns himself with the 'failure' side of the debate and uses a number of the strategies for expressing opinions in this stage. The first person is clearly evidenced here, although in this extract, the speaker uses a mix of *I* and *we* to underline that the view he is putting forward is not only his, but shared by the group.

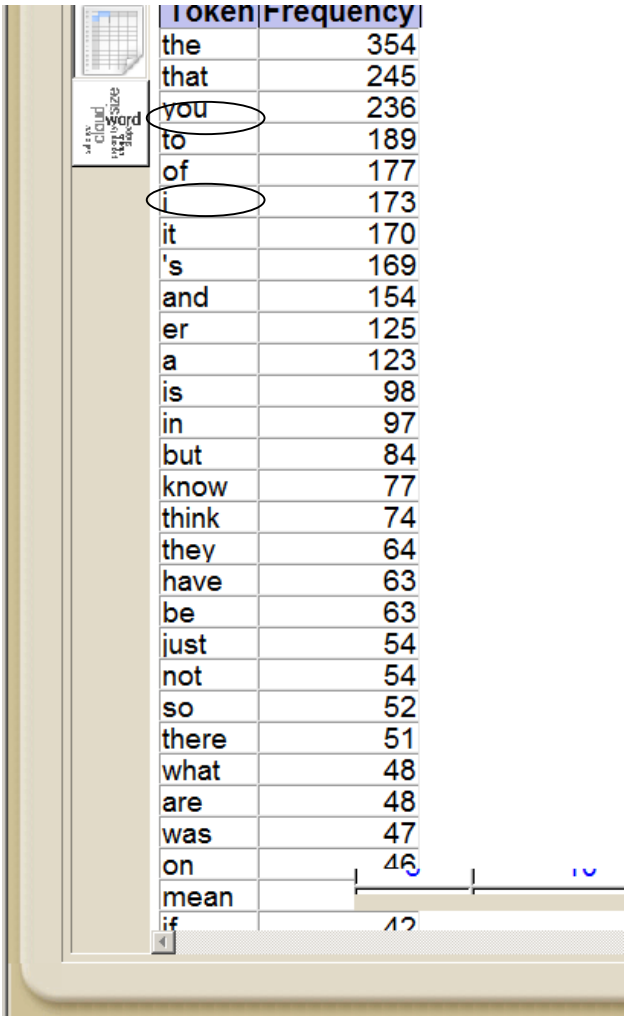
As well as using mental processes with *think* and *decide* to project opinion, that is, to project an idea clause, and to show that this is the speaker's opinion, yet allow room for dissenting voices, the opinion is hedged in numerous ways. For example, through the use of *tends to* and *basically*. Another means of distancing himself from the opinion in what is a high stakes move, is through the use of the past tense as well as the first person plural – *we decided that, we thought that*. The second speaker's turn plays a supporting role in the Argument stage through his agreement with the first speaker. His emphatic *yeah* shows agreement with the first speaker.

Having presented some of the linguistic features that make up the Argument stages in this DMG, I now turn to the Counter stage.

6.3.3 Counter stage

As noted above, in the Counter stage, the speaker disagrees with a previous speaker's argument or evidence, either through simply rejecting what has been put forward, or through offering an oppositional viewpoint. In the Counter stage, the focus is no longer entirely on the opinion put forward, but shifts to include the previous speaker's viewpoint that is being countered. In the Counter stage, the speaker may put forward their own argument. However, the relationship of this new argument to the existing argument is of great importance here. This is evidenced by linguistic devices that tie this Counter stage closely to a previous Argument stage. These devices are set out in detail below.

The first of these linguistic devices exemplified is the second person pronoun used when referring to a previous speaker's argument. How the pronoun is used in context is shown in more detail below, but first, to highlight the importance of the second person in this stage as opposed to the first person in the previous stage, or indeed in spoken discourse generally (*I* is third in the BNC spoken corpus), the word frequency list for this stage is shown below, showing that *you* is in third place in the Counter stage and *I* does not appear until position 6.



Token	Frequency
the	354
that	245
you	236
to	189
of	177
i	173
it	170
's	169
and	154
er	125
a	123
is	98
in	97
but	84
know	77
think	74
they	64
have	63
be	63
just	54
not	54
so	52
there	51
what	48
are	48
was	47
on	46
mean	
if	42

Figure 6.2 Word frequency list – Counter stage

The above frequency list highlights the shift in this stage from the first person and their opinion, to the second person. How the second person pronoun is used in the Counter stage is exemplified below.

One clear way in which the speaker positions their counterclaim in relation to a previous argument is to refer to the previous speaker's argument using phrases such as *you say/said,* or *you talk/ed about* or *you think*, prompting the reiteration of the argument, or limiting the scope as noted above in *I'm not saying that*... This reference to a previous speaker's argument is apparent when examining the most common 3-grams for the Counter stage, highlighted in the table below. *Both you talk about* (5

occurrences) and *you were saying* (4 occurrences), appear in the top 3-grams for this stage.

Phrase	Count
it 's not	8
seems to be	8
i mean i	7
i think you	6
i 'm not	6
in the form	6
er i mean	6
i think the	6
because it 's	6
but it 's	5
mean i think	5
er i think	5
there 's a	5
that it 's	5
you talk about	5
that 's er	5
think that 's	5
one of the	5
i mean you	5
'm not sure	5
that you know	5
i think it	5
think it 's	5
you were saying	4
totally understand why	4
you know there	4
that 's not	4

Figure 6.3 3-grams in the Counter stage

Conducting a search for *you* followed by any verb in the corpus helped to identify other references to the previous speaker's argument.[32] A number of these are shown below:

Table 6.9 References to a previous argument

e.g.	speaker: transcript	file ref
1.	t: I mean you say that adults learn there is a norm is it not the case adults have have more to protect do you think the privacy the you know is something that you just have to try hard to maintain because it's more important to you	sssem007ug
2.	s: no but you your point was circumstances have to be taken into account	ahsem003ug
3.	s: first of all you talk about you have to look at circumstances that Cuba was and you talk about the hardships faced by the Cubans because of the embargo put on by the Americans but	ahsem003ug
4.	s: also you were criticizing Castro's new man approach	ahsem003ug
5.	s: I just want to say that you said er I think the first thing you said was one of the first things you said was that you can't judge the Cuban Revolution because it's still going on and then you went on to say but it's failed in its aims and that kind of seems to disagree with itself	ahsem003ug
6.	s: it's not patronizing it's demoralizing you are saying that we don't think do you say that the Western are the only ones that got knowledge you're saying that ….	sssem005pg
7.	s: I mean you see it simply in the form of development I think you should see it in the form in the form of responsibility	sssem005pg
8.	s: or really do you honestly think that the that the C-O-two emissions from cars within the European Union is the same as what five ten years ago	sssem005pg

[32] This search is conducted in UAM CT by using you@verb

All of the examples in Table 6.9 refer directly to a previous speaker's argument or viewpoint, mainly using verbal processes to repeat or paraphrase what the students have said. The exception to the use of verbal processes are examples 7 and 8 where the student uses the mental processes *see* and *think* to talk about the speaker's viewpoint in general rather than about what they said, and example 2 in which the student nominalises what the student said as a *point* rather than using a verbal process to repeat what the student said. Although disagreement is not clear in all of the decontextualised examples above, this reference to a previous speaker's argument can be a clear first step to signalling disagreement, and this is something that speakers use to open the floor for their own counterarguments. Below, results from investigations into how the speakers then go on to disagree in overt or subtle ways are presented.

Another function of the linguistic shift to the second person in counter-arguments, and one where the disagreement element of the Counter stage is shown, is where speakers disagree with a previous speaker by using either the imperative form or a 'suggestion' (a combination of the speech roles of offer and command, (Halliday & Matthiessen, 2004, p. 457)) which uses modals to say what they think their 'opponent' should think or do. Examples of this are shown in the table below.

Table 6.10 Instructing opponent – Counter: provide

e.g	speaker: transcript	file ref
1.	s: but you have to remember that the embargo was put on by the Americans primarily you know after the revolution had begun	ahsem003ug
2.	s: but you mustn't forget the cold war	ahsem003ug
3.	s: it is something you definitely have to bear in mind	ahsem003ug
4.	s: I mean you see it simply in the form of development I think you should see it in the form in the form of responsibility	sssem005pg
5.	s: you can't just say I don't believe that's not true	sssem005pg
6.	Shell controls the whole thing do not be naïve about it	sssem005pg
7.	s: I think you can't assess the revolution until it's over	ahsem003ug

As can be seen even with the small amount of context in Table 6.10, to use the imperative or 'suggestions' in a counterargument is particularly forceful. In fact, this strategy occurs only in the two seminars which have the strongest level of oppositional debate, where the debate often becomes personal or 'eristic', that is, where it seems that students are arguing only to oppose the previous speaker's point. The sixth example where the student uses the imperative *do not be naïve* is particularly strong and will be returned to later.

To show how this strategy of 'instructing' opponents functions in context, a longer extract is given below. This is an extract from one of the two seminars mentioned above, where the tutors often actively encourage oppositional discussion. Students have been discussing what changes the developing world needs to make to combat environmental damage and the discussion has become a heated debate between students from the camps of developing and developed countries. The first

student begins by saying that the developing world does not have the capacity to make changes.

Extract 6.5 Debating

turn	speaker: transcript	stage: move
1.	Jacob: that is that's my argument is my argument is that if you want to change it you have to think you know what you know how who implements who does you know initiate policies international policies	Argument: provide
2.	Cara: I mean you *cannot preach something* I mean *what you don't practicing* you *cannot do that* it just doesn't work and we are not ignorant we're not stupid we know when you when you're preaching what you're not practicing	Counter: provide
	(continued Argument and Counter *stages)*	
3.	Tutor m: is there any other there are five people here from from er Asia developing Asia does anyone else want to participate in this debate give your opinion I mean you're all from countries who are trying to basically trying to get rich right catch up I mean do you think you should all be allowed to have two cars why not a lot of people in Europe have got two cars why can't you have two cars	Argument: elicit
4.	Simon: three even four	
5.	Tutor m: why can't you use your rainforest they're your rainforests	
6.	Simon: they're cleaner than the cars in your country	Argument: provide
7.	Cara: what	Argument: elicit
8.	Simon: they're cleaner than the cars in your country	Argument: provide
9.	Cara: I mean look we're getting on a big personal level let's not do that	Argument: provide
10.	Tutor m: no seriously does anybody is anybody do you have any comments	Argument: elicit
11.	Cara: shall I start using coal for cooking	Argument: provide

sssem005pg

Extract 6.5 is an extreme example of where the Debating DMG descends in to eristic argument. This is noted by Cara in turn 12 who makes the point *I mean look we're getting on a big personal level let's not do that,* stepping outside the argument to comment on it, at which point the tutor intervenes to refocus the discussion. Here the tutor specifically elicits arguments from the group of students who have not participated in the discussion up until now: *is there any other there are five people here from from er Asia developing Asia does anyone else want to participate in this debate give your opinion*. The question *I mean do you think you should all be allowed to have two cars why not a lot of people in Europe have got two cars why can't you have two cars* seems to deliberately provoke oppositional argument, although in fact it fails to elicit any contributions from the 'five people from developing Asia'. Although in-depth cultural discussions are beyond the scope of this thesis, this episode is reminiscent of Flowerdew's (1998) work on responses of different cultures to groupwork where she discusses the 'stony silence' or as the Chinese say 'dead air' that can meet a request for participation outside a student's cultural norms and particularly those used to an education system influenced by Confucian values (noted by, for example, Cortazzi & Jin, 1996).

A further noteworthy result that in the most oppositional instances of the Debating DMG, the Argument stage is no longer hedged with *I think*, perhaps indicating that the students have become entrenched in their polar positions and are therefore putting forward bald statements. According to Coffin et al. (2012), students are less likely to counter positions that are put forward as bald statements than those that are modalised in some way, and this can lead to avenues of discussion not being taken up. Of course, the extreme example above of oppositional talk is not necessarily a useful model for students, but these features could be useful in terms of feeding back to students the language features that make an argument *too* personal, or where students fall into a 'ping pong' argument trap.

Another way speakers in the corpus overtly disagree with a previous speaker is through use of debating metalanguage as in the previous and following extract, and where oppositional language is strongest. The debating metalanguage is marked

in bold. Other language features noted up to now in this DMG are also noted in the right hand column.

Extract 6.6 Debating metalanguage

turn	speaker: transcript	Stage: move	language features
1.	Bob: *I suppose I suppose a Marxist would* say those who fled were the oppressive bourgeois class but er	Argument: provide	*hedged using mental verb*
2.	Chloe: *you said* that they didn't flee	Counter: provide	*verbal process* provides reference to previous argument
3.	Laars: I don't think I think that it's quite a visible thing to see you know boats leaving for Florida I'm not sure how many people actually do flee Cuba each year	Evidence: provide	evidence for first speaker's argument
4.	Luke: actually	Counter: provide	imperative/ challenge argument meta language
5.	Chloe: give me **evidence** then		
6.	Laars: I can't **it's conjecture** but you can't give me any **evidence to repudiate it**	Argument: provide	
7.	Chloe: but I have **evidence** that like of **evidence** do you know what I mean in books I have read sorry but a hundred-and-twenty-five-thousand fled like you know	Evidence: provide	

ahsem003ug

In the extract above, the debating metalanguage does not appear in the initial Counter stage, but in the responses to this, which can be viewed as fending off the attack. It is where the argument becomes most heated that students use such metalanguage throughout the stages as in the extract above. Direct naming of the

speech act is, as has been noted by Leech, rare in spoken discourse in general. For example, we can note the difference between a mother saying to a child – *don't touch it*, or *I am warning you not to touch it*. In this example, the word *warning* has a 'sledgehammer' effect (Leech, 1980, pp. 70-71). Performatives or metalanguage used to provide a clear statement of the purpose of the utterance is indicative of conflictual discourse (Thomas, 1984; Koester, 2002, 2006). In this example the students are not allowing their opponents to, in Thomas's words, disappear into 'illocutionary ambivalence' (Thomas, 1984, p. 227).

So far, some of the most overt strategies of disagreement used in the Counter stage have been presented. Of course, common to all the Counter stages is the function of disagreeing. This can be expressed overtly as has been shown in the examples above, or by using conjunctions such as *but it's, just because it's* or *it's not*, all highlighted through an exploration of the most frequent 3-gram list (see Figure 6.3 above) (a number of these conjunctions are discussed below). Here, as noted in previous research, speakers do not use the 'opine' markers often presented in textbooks (noted in, for example, Cheng & Warren, 2006; Koester, 2002, 2010b), and as such are unlikely to say something like *I am afraid I disagree*, but express their disagreement in other ways.

Apart from the expression of disagreement in the overt ways already noted, what is more interesting and perhaps more difficult for learners to grasp is this more subtle way in which disagreement can be, and often is, expressed. This is also of course more difficult to identify in a corpus study, although cumulatively noting markers of disagreement through a combination of qualitative and quantitative techniques allowed for more indirect disagreement to be noted. The following highlights some ways that less overt disagreement is expressed in the Counter stage.

I mean, which appears in the 3 gram list above, seems to be a subtle signal for disagreement. When viewing concordances for *I mean* in this stage (21

occurrences in total, in 7 files), what becomes clear is that it often closely precedes or follows disagreement as in the following examples.

Table 6.11 *I mean* accompanying disagreement – Counter: provide

e.g.	speaker: transcript	file ref
1.	*s: I mean* obviously there weren't advertisements in the papers in the same way er **but**...	ahsem008pg
2.	t: **I don't** *I mean* I'm not su-, *I mean* I think **technically you're right** but on the other	ahsem010pg
3.	s: **but** *I mean* how obvious was that it he was going to die if I push someone off a moving vehicle	sssem006ug
4.	t: what about this adult thing *I mean* **you say that** adults learn there is a norm is it not the case	sssem007ug
5.	t: well *I mean* you you say partner turnover is a function of frequency of sex then cause it is that the implication you're just having so much sex you're ready for someone else much much quicker is that the implication **then I'm not sure about that but it** (do-go on)	sssem007ug

In Table 6.11, *I mean* is italicised and the counterargument/ countering evidence underlined. Other linguistic markers of the Counter stage are highlighted in bold. In the above extracts *I mean* alongside disagreement is expressed in a more tentative way than in the examples discussed previously. In examples 1 and 2, the speaker provides a concession before going on to the disagree using the conjunction *but.* In the final three examples the speaker tentatively disagrees using interrogative forms, and statements expressing uncertainty – *I'm not sure about that* or the mental process *I think* (as discussed above in the Argument stage) to make room for

dissenting voices. This can also be a precursor to reiterating an argument with *I'm not saying* as discussed above. In other instances, disagreement is so subtle that it is difficult to pinpoint it as such without looking at a greater amount of context. This is exemplified in the following extract from the SS subcorpus in which the students are debating whether the bus industry is differentiated or not. Language features common to the Counter stage are highlighted in the right-hand column.

Extract 6.7 Subtle disagreement

turn	speaker: transcript	stage: move	language features
1.	Bill: *you mentioned* about buses from the university to Leamington	Counter: provide	*verbal process to refer to previous speaker's argument*
2.	Tutor male: yeah		
3.	Bill: I'm living in Kenilworth actually and but I'm taking the twelve West Midlands	Evidence: provide	
	Tutor male: yeah		
4.	Bill: I don't dare to take West Midlands if I come to Leamington from the university because it's much faster it doesn't go through Kenilworth		
5.	so in that sense *I think* the product is perfectly differentiated	Counter: provide	mental process *I think* to show Counter argument part of Counter stage

In the Debating extract above, the speaker refers back to a previous point made by another student earlier in the seminar in order to open the floor for his own counterargument. Evidence is then provided to support the subsequent counterargument. However, these are the only markers of disagreement and although the previous argument is mentioned, there is no overt expression of

disagreement accompanying it. For example, there are no conjunctions expressing disagreement and no negatives used to express disagreement. The reversal of the Counter and Evidence stages is another sign of subtle disagreement as the speaker foregrounds the evidence by starting with this stage rather than with his own view. This is an illustration of where the opposing view would be difficult to find by corpus investigation alone, but the clues about the other ways in which disagreement is indicated (such as the reference to a previous argument) were a useful means of identifying it.

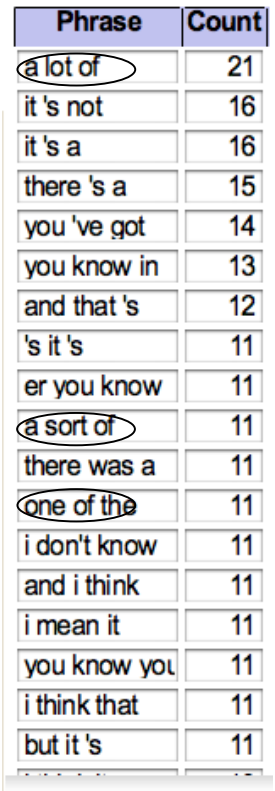
The more subtle expressions of disagreement presented here were more difficult to identify than the more obvious disagreement noted above. This echoes previous research into spoken academic discourse which has found markers of conflictual discourse hard to find in academic discourse (for example, Mauranen, 2002). Likewise, Allwood (1993) noted that interpreting an utterance as conflictual or cooperative often requires consideration of its relation to context. The results shown above confirm that that this is often the case and that there are a number of 'recurrent conflictual indicators … [that] constitute scaffolding for criticism, even if they might look non-critical and inconspicuous in themselves' (Mauranen, 2002, n.p.), and that these indicators indicate where criticism is likely to follow or be implied rather than constituting criticism itself.

The micro analysis from the Counter stage has shown some of the linguistic strategies used to position the speaker's argument in relation to a previous argument. This can be through direct reference to the previous argument, following which subtle or less subtle disagreement might follow. Overt strategies of disagreement used by participants include debating metalanguage and telling opponents what to do or think. These overt strategies sometimes suggest that speakers are becoming entrenched in polar positions as the debate gets more heated. More subtle forms of disagreement can use particular discourse markers associated with hesitation or hedging, concessions followed by disagreement and interrogatives rather than statements to put forward counter arguments.

6.3.4 Evidence stage

In the two stages previously discussed, there was a focus on the speaker then a shift to include the previous speaker's argument. In the Argument stage, this was through the speaker positioning themselves as central to, yet distancing themselves from, their proposition by allowing room for dissenting voices, often by use of an interpersonal Theme. In the Counter stage, this focus switched to include a previous speaker's point of view by direct reference to what was said and suggestions about what this opponent should do or think, or through more subtle disagreement with the previous argument. In the Evidence stage, the focus switches from the first and second person to the facts speakers use put forward to support their claims. The results below illustrate how this shift in focus is played out linguistically. Specifically, results show the vague language used to talk about propositions, and the discourse markers used to introduce examples. Finally, the results from the investigations into this stage show the types of evidence used in the different disciplines from across the corpus.

One group of functionally related phrases that occur most often in the evidence stage serve to adjust the accuracy of the content of the proposition, such as *lots of, a sort of, one of*. This group of phrases, in contrast to devices used in the Argument stage, rather than demonstrating the level of the speaker's commitment to a proposition, hedge on the accuracy of the proposition (Biber, 2006). That is, they put the 'evidence' rather than the speaker's position at centre stage. In this stage, these phrases do not tend to be introduced by mental processes which show speaker certainty or uncertainty; the lack of such explicit mental processes shows that the speaker is sure that the evidence exists, but may not be sure about the exact extent or type of it. Examples of such phrases are highlighted in the most common phrases in the evidence stage as shown below.



Phrase	Count
a lot of	21
it 's not	16
it 's a	16
there 's a	15
you 've got	14
you know in	13
and that 's	12
's it 's	11
er you know	11
a sort of	11
there was a	11
one of the	11
i don't know	11
and i think	11
i mean it	11
you know you	11
i think that	11
but it 's	11

Figure 6.4 3-grams Debating – Evidence stage

The phrases highlighted in Figure 6.4 all comment on the epistemic status of an entity, rather a speaker's opinion towards it. Although the mental processes *I think, I don't know* do occur, they are much less common than in the previous two stages, and the interpersonal Theme as used in the previous two stages is rare.

The example of *a lot of* is shown in the context of the evidence stages in the concordance below to demonstrate how with markers of vagueness, it is rare to have an interpersonal Theme.

ı Cuba by allow allowing them to celebrate Christmas and we saw that	a lot of	Cubans did celebrate Christmas that year and they are still celebrating i
lly in countries where there was a military dictatorship for a lot for quite	a lot of	years or you know a dictatorship the kind of Peron the church will be the
Chile too no yeah but still	a lot of	people do not join the Brown Shirts or the Black Shirts of Mussolini in W
ɨemina		
sm5153: i mean yeah	a lot of	it's determined by the kind of sterility of whitenessnf5151: everything ...
ɨemina		
he Midland Bank's sponsorship of the Proms concert has come under	a lot of	criticism but i would point it the other way and say why don't the arts cou
support you know linked in with the police and all the rest of it there are	a lot of	people in the black community in Birmingham who said this is we don't
ıars/ssı		
when it opened in Moscow is that basically the price of a Big Mac for	a lot of	people was a week's wages but they would spend it because there was
. i think on an individual level that's how it really works i meanit's it's	a lot of	try really hard to look American it's very i think
...ually to 'cause it is her it is her religion it is her cultureand there is	a lot of	pointing at if you do find a woman dressed in
ɾica Namibia has sent troops there andthis government they spend	a lot of	money on defence and the women are thefirst to speak up no why do yo
ıars/ssı		
very reserved and they probably would want a lot more space than	a lot of	other cultures which are more open to each other
ıditions flats cities other people couldn't bear that there seem to be	a lot of	individual differences in how much space which is important
ıars/ssı		
ıt's actually a good one that's a white collar job which cause there's	a lot of	stress in teaching so so people so you think i might be increasing as we
yeah like	a lot of	people wouldn't tell their spouses when you know the risk of being unem
there is	a lot of	evidence that actually ill health affects start before before redundancy a.
symptoms around fear gastric disturbance and things like that there is	a lot of	evidence that particularly impacts around peoples mental health the oth

Figure 6.5 Concordance: *a lot of* in Debating – Evidence

As can be seen in the examples above, these phrases are often introduced with relational processes like *there is*/*are*, but not generally preceded by *I think*. In this stage then, the participant does not intrude into the discourse as a Theme in the same way as in the Argument stage or the Counter stage. Here the focus is on the evidence. So while the opinion put forward often comes across as subjective and is elicited as such through questions like *What is your opinion of X*? or *Do you think X or Y?*, evidence used to support the opinion is presented in a more objective manner, using markers of vagueness that have been noted as common in academic language (for example, Swales, 2001). This adds to work from an SFL perspective which has shown that interpersonal elements expressing evaluation are foregrounded to different extents in different stages in the genres of spoken academic discussion (for example, Hood and Forey, 2005; Recksi, 2005). There are, however, exceptions to this lack of speaker presence in the Evidence stage. These exceptions are discussed below in relation to the type of evidence used in different disciplines.

The type of evidence used in the Evidence stage is directly applicable to teaching and materials design, and was thus investigated in detail. There is a clear

distinction between the types of evidence that are used in the two disciplinary subcorpora where Debating occurs. In the Social Science subcorpus, more evidence based on personal experience is used than in the Arts and Humanities subcorpus. In the Social Sciences subcorpus, this evidence based on personal experience seems permissible in addition to disciplinary evidence. The permissibility of the use of personal evidence in the SS subcorpus is exemplified by the evidence prompt in Extract 6.8.

Extract 6.8 personal evidence – Evidence: elicit

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t: but is there is there is there is there actually **evidence** that actually being unemployed are you familiar with t**his I gave you or from what you know or maybe you've known people who are unemployed** as well **so you can bring in both experiential and a kind of social science evidenc**e here but actually unemployment has a is a causal link to early mortality amongst people that are at retirement age namex you're nodding

---

sssem008ug

In Extract 6.8, the tutor actually names the stage that he is eliciting and suggests two types of evidence that the students may like to draw on – experiential (or personal) evidence and social science (or disciplinary) evidence.

In the Social Science subcorpus, personal evidence given includes narratives or other story telling genres (Plum, 1998), and when providing such personal evidence speakers often *do* intrude into the text. The following anecdote used as evidence in Extract 6.9 is taken from a seminar on gender and globalisation, where a student integrates personal evidence to back up the argument that society is still patriarchal (additional context is provided in brackets):

Extract 6.9 Narrative in Debating – Evidence stage

turn	speaker: transcript	Stage: move
1.	Anna: economy but er the well as far as the women's as far as for women I think it's er behind of industrialised countries we still patriarchy insist in Japan and er still women's er expected to play role of mother yes it's very strict	Argument: provide
	er this term with meeting more and more sort of international students who said oh you know er it must be so much better for you here and I'm like well you know in in sort of some ways there may be sort of certain you know I mean maybe the economic situation and things like that that I you know I can't argue although you know we got it just as bad but you know I said well you know patriarchy isn't you know we're still talking about it I mean it's not as though it's been eradicated so and I think er people I've spoken to were actually quite surprised by that because they'd come here thinking they would see these empowered happy women all over the place who were all like you know no problems at all er they were kind of a bit surprised with that as in you know how it is so I think it's quite you know it's interesting	Evidence: provide
2.	tutor f: yeah I agree with there it's a mistake to think that er gender and power relations don't exist here	

ssem002pg

In the extract above, the student integrates comments from other students to support the argument she is making and the tutor accepts this evidence, as can be seen in the final turn *yeah I agree with there it's a mistake to think that er gender and power relations don't exist here*. In this study, although not investigated in such great detail as the Macro Discussion Genres, such chunks can be seen as ‘embedded genres’, as noted in Chapter 4. Other embedded genres of personal storytelling used by students in the Social Science subcorpus are narratives about working for particular

NGOs and using public transport. The one SS seminar with no personal narratives is the Law seminar where evidence stages are all based on disciplinary evidence – perhaps because the hypothetical cases that the students are discussing are far removed from their own experience and they are required to refer only to disciplinary knowledge.

While in the Social Science subcorpus personal evidence is often used, in the Arts and Humanities seminars, when debating historical events, for example, students draw much more from disciplinary knowledge than from their own lives and experiences. Table 6.12 shows examples of disciplinary information in the Evidence stages from the AH subcorpus.

Table 6.12 Examples of disciplinary evidence in AH – Evidence: provide

e.g.	speaker: transcript	file ref
1.	s: and they were still dependent on sugar as their main export and they tried to er improve this they set the target of ten million	ahsem003ug
2.	s: er you know healthcare in Cuba is free at the point of delivery which is true in this country but it's not true in America	ahsem003ug
3.	s: er like the University of Havana it used to be like one of the main point main places where anti-dictatorship protest took place	ahsem003ug
4.	s: I read somewhere that it's something to do with the increase in separation of the public and private spheres and as women were pushed into their home they were given er more leeway to decorate it and to make it nice er	ahsem008ug
5.	s: so they had a medicine chest on the wall	ahsem008ug

The above examples all show use of disciplinary evidence in the Evidence stage. The students speak about events that happened in the past, or what people possessed in the past, so the evidence is exclusively in the third person.

Only one AH seminar, which discusses funding for Arts organisations, does include personal narratives in the evidence stage. This is perhaps due to the fact that the students are discussing experience of gaining funding for arts organisations they have worked for, and that the seminar has a professional focus.

In terms of where the evidence in the evidence stage is *from,* or sourcing their evidence, *students* in both disciplines sometimes refer to where they have read information, but the exact reference is rarely mentioned, as shown in the following examples.

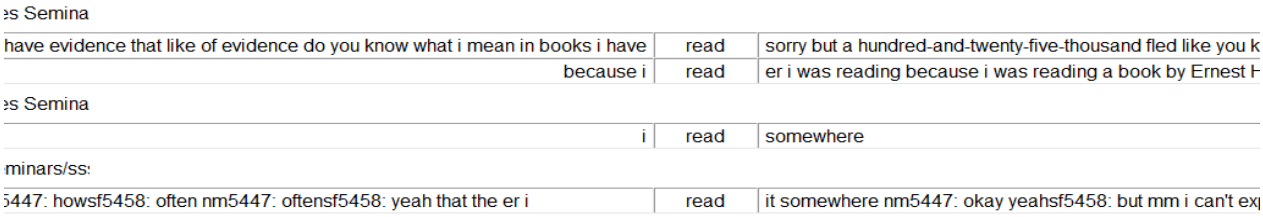


Figure 6.6 Sourcing evidence: screenshot

It seems the intertextual reference *I read it somewhere* is sufficient rather than actually stating where 'it' was read, and further specification is not called for by the tutor.

A final feature of this stage that is highlighted by an analysis of the key phrase list is the use of the discourse marker *you know* and *say* used in a similar way to introduce examples. It is known that *you know* has various functions for example, as a discourse marker of shared knowledge (Crystal et al., 1978; Schriffrin, 1987). In this stage, *you know* often functions as a synonym of *for example*. This is shown in the examples in Table 6.13.

Table 6.13 The use of *you know* to introduce examples – Evidence: provide

e.g.	speaker: transcript	file ref
1.	s: the outcomes are very useful link there er I think we're looking at *you know know* healthcare to start with now er *you know* healthcare in Cuba is free at the point of delivery which is true in this country but it's not true in America	ahsem003ug
2.	s: Americanisation I mean *you know* there's McDonald's in Moscow it's gotta be bad	ssem002pg
3.	t: really as as where you'd go for medical care but if you are receiving newspapers in which it says do you have *you know* gallstones or something like that have you tried I noticed Jones's friendly pills were cited at one stage in Porter	ahsem008pg

The above exemplify *you know* used to introduce examples in this stage.

The second discourse marker used to introduce examples, *say*, is exemplified below.

Table 6.14 Use of *say* to introduce examples

e.g.	speaker: transcript	file ref
1.	s: I mean there's an example I work in there's an NGO coming in through er *say* Oxfam UK Oxfam Canada and they would go to rural area	sssem002pg
2.	s: it's more that you *say* when you're you're brought up without other right	sssem007ug
3.	s: situations to do that *say* from a pub or something and er you go up and talk to them it's the nature [and that's okay but in a situation like that it's not really acceptable I'm not sure if it's inbuilt or not]	sssem007ug
4.	s: well we used examples of people if you're ill *say* you're a teacher yeah [I think also within within illness itself there might be sort of distinctions because middle class people you could say are more likely to be sufferers] you could say of something like M-E which isn't as highly recognized as *say* an early stroke or you know someone something which is seen much more as a working class disease	sssem008ug

In the above examples, *say* is used in the same way as the discourse marker *you know* above to introduce examples.

The use of discourse markers used to introduce examples contrasts with materials reviewed for this thesis where phrases using example metalanguage are given such as *I can give an example of that* (Fitzgerald et al., 2010, p. 45). These findings relating to the particular features of spoken discourse are discussed further in Chapters 9 and 10 in terms of the differences between spoken and written language.

The results from the micro analysis of the Evidence stage show linguistic strategies used to put the evidence at centre stage and make the argument more objective. It has shown some discourse makers used to introduce examples as well

as the type of evidence commonly used in different disciplines across the corpus and where this evidence become personal and less objective.

Table 6.15 provides a summary of the Debating DMG

Table 6.15 Debating DMG: key features

Key language features (examples from corpus)
Issue ***Presentation of the issue to be debated***
nuanced description of issue to be debated
Argument ***A stance on a particular issue***
Focus on own opinions, mental processes, especially *think* as common process type to foreground own opinion; justification of argument through use of progressive verb form; hedging
(Evidence) ***evidence to support an argument***
vague language (*lots of, sort of)* to hedge accuracy of proposition, different evidence types in different disciplines (personal/ disciplinary); discourse markers indicative of spoken language to introduce examples
Counter ***Opposing position to a previous argument or rejection/ refutation of previous evidence***
references to previous argument (verbal process types), use of 2nd person pronoun; imperatives of modals to 'instruct' opponent, metalanguage where debate most heated as well as less hedging.

6.4 Chapter conclusion

This chapter has shown that although Debating is a widely occurring DMG in the corpus, it does not exist in all of the disciplinary subcorpora and is more prominent in

the SS subcorpus than in the AH subcorpus. The chapter highlighted the linguistic resources used by students to focus on their own arguments, which, in contrast to formal written academic genres, are not necessarily marked by their objectivity. It showed the resources used by students to position these arguments in relation to a previous speaker's argument, and to put forward supporting information. It also demonstrated that while the issues debated may be complex, the questions prompting Debating narrow down the issue into polar positions through posing closed questions.

As in previous research, students tended to put forward Argument and Evidence stages rather than Counter stages. While disagreement could be more or less overt, those seminars with the most overt disagreement in fact showed to have the highest level of eristic argument.

Disciplinary differences were most apparent in the Evidence stages, where in the SS seminars personal evidence was elicited and often provided in the form of narratives. In the AH seminars, evidence provided was more often disciplinary.

The next chapter turns to the results of the investigations into the second DMG discussed in this thesis: Responding.

Chapter 7
Responding DMG

This chapter presents the results of the investigations into the Responding DMG. After a summary of the nature of the Responding DMG, its distribution across the corpus is set out, showing it to be the predominant DMG in the AH subcorpus. Responding also accounts for a considerable proportion of the data in the PS subcorpus. However, it hardly factors at all in the SS subcorpus. An overview of the function and frequency of stages of the Responding DMG is given, demonstrating that of the three stages that make up this DMG (Description, Evaluation and Interpretation), Interpretation is by far the most common stage. The linguistic manifestation of the stages is then set out in detail.

7.1 Responding DMG: summary and overview of quantitative data

The starting point for discussion in the Responding DMG is an artefact or event that students are required to respond to. Eliciting questions or points for discussion call for descriptions, personal reactions and interpretations. In the Responding DMG, the social purpose can thus be said to be to describe and give a personal reaction to and/or interpretation of an event or artefact. Some examples of the artefacts or events that the students respond to in the corpus are films, as in a Film Studies seminar where the students relate a particular part of a film plot and then evaluate and interpret it, and art installations, as in an Art History seminar where students describe an art installation, say whether or not they liked it and give an interpretation of its meaning. Another example of Responding is in a Chemistry seminar where students describe a teamwork event, evaluate it and then interpret what they learned from it. Three stages combine to make up the Responding DMG. These are: Description, Evaluation and Interpretation. Of these stages, the Description stage and either one of the two other stages need to occur to fulfil the social purpose of the genre. Often, though not always, the Description stage precedes either the Evaluation or Interpretation stage (or both). As will be seen in the examples in this chapter, where both the Evaluation stages and Interpretation stages are present, the Evaluation stage often precedes the Interpretation stage.

An overview of the Responding DMG is given in Table 7.1.

Table 7.1 Responding DMG summary

Social purpose:	to provide a personal response and/or interpretation of an artefact or event
Stages:	Description, Evaluation, Interpretation
Examples from corpus:	response to artwork (History of Art); response to teamwork event (Chemistry)

As was shown in Figure 5.1, Responding accounted for 28% of the discussion in the seminar corpus. It occurred across six seminars and, although it occurred in all three disciplinary areas, the occurrence in the SS subcorpus was solely in a discussion about the course, and was not part of the seminar proper. It is for this reason that the investigations below focus on Responding in the AH and PS subcorpora. The distribution of Responding across the disciplines is represented in Figure 7.1.

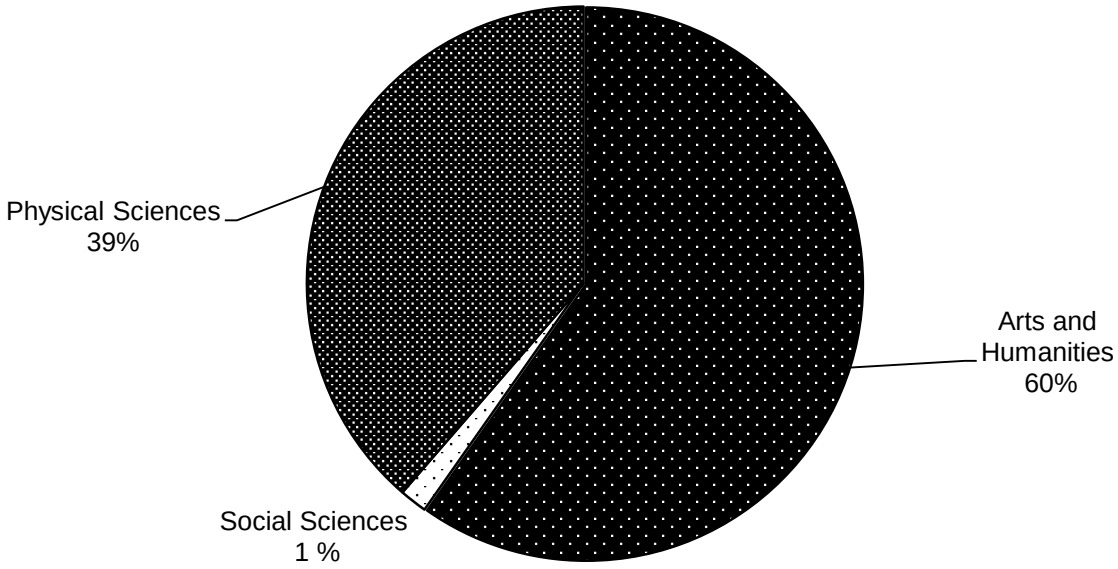


Figure 7.1 Responding across the disciplinary subcorpora

As stated in Chapter 5 and shown for clarity in the above chart, the majority of the Responding DMG (almost 60%) occurred in the AH sub corpus. This is perhaps not surprising and can be accounted for by the presence of Film and Television Studies, Art History and Poetry seminars in the AH sub corpus, all subjects we might traditionally associate with involving some form of response to or interpretation of an entity (for example, Barnet, 2011). What is more surprising is that Responding occurred to such a large extent in the PS sub corpus, a subcorpus populated by 'hard science disciplines' (as classified by, for example, Braxton, 1995). This occurrence of the Responding DMG in the PS subcorpus can be explained by the nature of the seminars in the PS corpus. Three of the PS seminars were groupwork events with a post groupwork event that involved responding to the task set. In the SS seminars, Responding appeared only in a discussion about the course, and otherwise did not appear (see Appendix 2 for overview of DMGs in each seminar).

An example of Responding is given in Extract 7.1. It is a minimal example taken from an Arts and Humanities seminar (Art History) where students discuss art installations that they have seen.

Extract 7.1 Responding

turn	Transcript	stage: move	notes
1	er well some like okay let's say take the one who that Ourman's The Plan and when he took the gallery and he filled it with rubbish and you weren't allowed to enter the gallery space or anything you had to er you had to look in through the window	Description: provide	Identification of art installation and who it is by. Description of art installation.
	and therefore he made the gallery as much of an art form as the rubbish inside it	Interpretation: provide	Suggestion of meaning of installation (why it was done in this way).
	which was brilliant it's a great idea	Evaluation: provide	Personal evaluation of art installation.

ahsem007ug

The above extract shows one of the students in an Art History seminar providing all the stages of this DMG. The student names the artist and the installation she is talking about before describing what was meant by it and then going on to evaluate it. In the seminar, the stages are recursive as this extract is added to by other students and there are other responses to this and other art installations.

7.2 Responding: stages and moves

Next, stages and moves in the Responding DMG are set out and exemplified. The frequency of stages is also given, showing that Interpretation is the most frequent of the three stages that make up this DMG. Table 7.2 provides an overview of the Responding stages and moves and shows how the different stages can be made up

of individual moves. On the left is the stage: Description, Evaluation and Interpretation; and on the right, the move within each stage (showing whether it is eliciting or providing information). The two stages where either, both or just one of the stages can be present, are shown in angled brackets. These are the Evaluation and Interpretation stages: the social purpose of the DMG can still be fulfilled if only one of these stages is present.

Table 7.2 Stages and moves in the Responding DMG

Stages	**moves**
Description	Description: elicit
	Description: provide
<Evaluation>	Evaluation: elicit
	Evaluation: provide
<Interpretation>	Interpretation: elicit
	Interpretation: provide

Descriptions of each stage, together with probes and examples for each move, are provided in Table 7.3.

Table 7.3 Responding: stages, moves, probes and examples

Functional stage* *Description*			
Probe	Move	Examples **	_file ref
Description *Identification of /details about artefact/ event*			
Asks the questions: What are we talking about? What does it look like? What happened?	Description: elicit	t: yeah yeah what what was the first thing that happened aft-, after you'd read it through then what what happened next	
Answers the questions: What does it look like? What happened?	Description: provide	like the the whole of like the first half an hour when they're er is it an island they're on an island_ ahsem006ug	
<Evaluation> *Opinions about the artefact/ event*			
Asks the questions: How good or bad was it? How did you feel about it?	Evaluation : elicit	what's your response to that [*another student's poem*] _ ahsem004ug	

Answers the questions: How good or bad was it? How did you feel about it?	Evaluation : provide	er I I thought it was great [I was er too busy thinking about I don't know]_ ahsem004ug
<Interpretation> *Interpretation of the meaning of the artefact or interpreting lessons learned from event*		
Asks the questions: What does it mean? What have you learned from this?	Interpretation: elicit	but did any part of your plan help you achieve what you achieved_ pssem003ug
Answers the questions: What does it mean? What have you learned from this?	Interpretation: provide	so I think the beauty in the thin in The Thin Red Line is sort of mainly linked to ideas of nature_ahsem006ug

* either or options in angled brackets <>

**Additional context from transcript or explanations (italicised) shown in square brackets [..]

Table 7.4 shows the frequency of these stages in the corpus.

Table 7.4 Frequency of stages: Responding

Stage	Total number of stages
Description	333
Evaluation	379
Interpretation	571

7.3 Responding: linguistic realisation

Having outlined the function of the Responding DMG, its distribution across the corpus and the function of the different stages, the next section describes the key language features of the DMG. Results from the micro investigations highlight the move from commonsense to uncommonsense meanings in this DMG. How this move is manifested linguistically is shown in the remainder of this chapter.

7.3.1 Description stage

The Description stage is at the lowest level of abstraction of the three stages in this DMG with its on focus on concrete entities. These are entities which can be experienced by the senses, or are, in Bernstein's terms, 'everyday community knowledge' (Bernstein, 1975, p. 99), cited in Christie and Derewianka (2008, p. 218), and 'common sense' meanings. This focus is manifested linguistically in various ways. Firstly, concrete nouns, and processes relating to the material world are prominent. The emphasis on the material world is also indicated through deictic reference where descriptions are multimodal. Finally, personal stance and uncertainty is least foregrounded in the Description stage, suggesting that students are relatively comfortable with what they are describing and feel unlikely to be challenged – perhaps a result of the common sense meanings under discussion. These features are described in more detail below.

Keywords in the Description stage, using the remainder of the corpus as a reference corpus (see Chapter 4), help to build the field and give a flavour of the 'aboutness' of this stage (Scott, 1997; Scott & Tribble, 2006). Explaining this from a SF viewpoint, through looking at the keywords we get an idea of the field of a text, whether it is about cricket, or art or films.[33] Examining keywords indicates that this stage occurs mainly in the three areas of films, art or poetry, which are the topics which account for the main portion of the Responding texts. The majority are concrete nouns such as actors in a film or gallery names, such as *Penn* or *exhibition*. While sometimes only occurring in single texts in the corpus, the keywords are still useful as they can be categorised across the texts to show common themes across the corpus. The keywords from the 333 Description stages, using the remainder of the corpus as a reference corpus, show the focus on entities in this stage. The top key words are listed below.

[33] See Chapter 4 for an explanation of keywords

Token	N (Text)	N (Ref. Corpus)	Propensity
panels	11	1	128.29
rhymes	6	0	30.00
collectors	5	0	25.00
transform	5	0	25.00
wall	15	17	17.15
placed	7	6	14.74
witt	12	17	13.72
penn	7	7	13.61
shot	6	6	11.66
exhibition	11	19	11.25
asher	11	19	11.25
pictures	7	11	11.13
goya	5	4	10.93
wife	9	17	10.29
beginning	11	21	10.18
sf5157	17	33	10.01
sf5156	6	9	9.72
sean	7	14	9.72
trailer	5	5	9.72
army	5	5	9.72
sf5158	9	19	9.21
walls	5	6	8.91
slide	5	7	8.33
character	5	8	7.90
closed	4	4	7.77

Token	N (Text)	N (Ref. Corpus)	Propensity
trees	5	10	7.29
gallery	27	73	7.19
took	12	33	7.07
sees	4	5	7.00
sea	5	12	6.88
quickly	5	13	6.73
guy	5	14	6.59
huge	5	15	6.48
fake	4	6	6.48
sf5152	21	65	6.28
private	7	22	6.18
speaking	4	7	6.11
persona	4	7	6.11
chicago	4	7	6.11
green	4	8	5.83
realise	4	8	5.83
village	4	8	5.83
says	20	68	5.72
started	10	34	5.72
lines	4	9	5.62
full	4	10	5.44
hours	4	12	5.18
laughter	4	12	5.18
room	9	34	5.15
su5161	11	42	5.09

Figure 7.2 Keywords Responding – Description

The keywords in the Description moves as shown in Figure 7.2 provide a flavour of the kind of entities that the participants are responding to. Many of the keywords clearly identify and describe the art installations talked about in the corpus, such as panels, collectors, exhibition, pictures and gallery as well as artists' names – *Asher* and *Goya* – and the location of the gallery – *Chicago*. There are keywords identifying and describing film plots. They include the names of characters and actors – *Witt*, *wife*, *the army*, *Penn* – as well as locations or 'scene setting' key words – *sea*, *trees*, and *beginning* or *end* (further down the keyword list for this stage) – used primarily to identify the part of a film, or event, as shown in below.

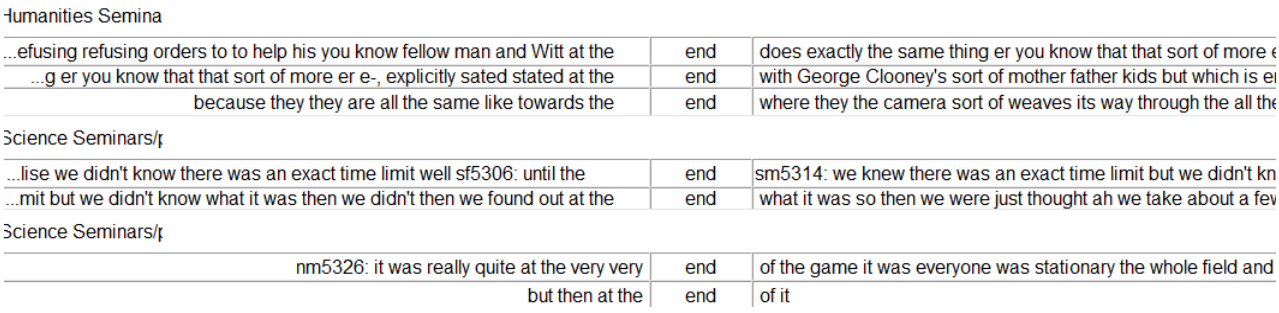


Figure 7.3 Concordance: *end* in Responding – Description

The concordances in Figure 7.3 show where seminar participants are specifying the part of the film they are talking about, for example, *towards the end where the camera sort of waves its way through*, or the end of the teamworking event, *but at the end of it*.

Other key words are more technical terms describing physical properties of entities described. Although these are not concrete nouns, they are still entities that can be experienced by the senses. For example, *shot* is used to talk about the nature of the cinematic takes, for example, *then we get instead of cutting back like in a point of view shot we see Ben Chaplin alone in the fields* (ahsem006ug). The term *rhyme* is another example: *it's a poem it's in a form it's in chains it's got half rhymes* (ahsem004ug).

As noted above, although the keywords are useful to highlight the topic of the Description stage, they are strongly tied to field and as such, in a small corpus analysis, they do not tell us much more than perhaps could already be presumed. To discover other important and more rhetorical linguistic features of the Description stages it is also useful to look at the key n-grams.

While the key words in the Description stage pointed to the entities being described, an investigation of the key n-grams highlights the importance of process types relating to the external world in this stage, namely behavioural, material, verbal and relational processes. Behavioural, material and verbal process types all relate to the *external* world rather than the speaker's *internal* world. An investigation of the

relational processes used here, shows that although ‘(r)elational clauses may construe both ‘outer experience’ and ‘inner experience’ ‘ (Halliday & Mathiessen, 2004, p. 211), here they are used to express primarily ‘outer experience’. For example, *they were middle class* (ahsem004ug) serves to identify something in the external world. It could be said that ‘facts’, rather than opinions or feelings are important in this stage. These process types used for relating the external world are marked in the screenshot in Figure 7.4 showing the key n-grams for this stage.

Feature	N (Text)	N (Ref. Corpus)	Propensity
he 's talking	5	1	39.25
he took the	5	0	25.00
i went to	5	0	25.00
at the beginning	7	14	13.08
you have the	5	8	10.63
right at the	4	4	10.47
when he 's	4	4	10.47
you could see	4	5	9.42
and he 's	7	26	7.04
er and then	4	14	6.73
it 's in	4	16	6.54
i mean they	3	5	6.28
rest of the	3	5	6.28
yes it 's	3	5	6.28
's in a	3	5	6.28
i was like	4	17	6.16
in the gallery	3	6	5.89
was it was	3	6	5.89
you had to	3	7	5.61
that and then	3	8	5.40
he 's like	3	8	5.40
it was it	3	8	5.40
like it 's	3	8	5.40
though it 's	3	9	5.23
er kind of	3	9	5.23
and then you	6	30	5.23

Figure 7.4 Key 3-grams in Description stages

The key phrases highlighted in Figure 7.4 are processes relating to the external world and are shown in context below.

Table 7.5 Processes relating to material world Description: provide

e.g.	speaker: transcript	file ref
1.	s: yes quite early on in the movie we actually *you see him he's talking saying he got drafted because he wanted to be with his wife*	ahsem006ug
2.	s: he *took the panels which lined up with the new gallery*	ahsem007ug
3.	s: like on Friday *I went* to the Asher monument	ahsem007ug
4.	s: when *he's on the the field*	ahsem006ug
5.	s: you *could see the plaster* underneath basically	ahsem007ug

In the examples in Table 7.5, the speakers are explaining external entities, even where, as in the final example, they use mental processes of perception such as *see* to project these external phenomena.

An examination of the concordance lines for the verb *be* followed by *like* shows that in this stage *like* in *was* or *were like*, when used as a verb (as opposed to a discourse particle), is used as a verbal process. It has a projecting function similar to I *said*, or *he said* as in the following examples in Table 7.6.

Table 7.6 *like* as a verbal process – Description: provide

e.g.	speaker: transcript	file ref
1.	s: *he's like* it's not human nature it's you've been into this	ahsem006ug
2.	s: *he's like* you can't stay here because you're too soft you're not manly enough	ahsem006ug
3.	s: you know where he's he's saying oh I have my imagination *he's like* and this is the only world you have	ahsem006ug
4.	s: and then *I was like* it's not working	pssem002ug
5.	s: the other guy was going are you finding this constructive we *were like* oh yeah he's taking it seriously and you were going oh no…	pssem002ug
6.	s: so I *was like* okay i'll just spell it out and then everyone started doing it	pssem002ug

The above exploration of the key phrases for this stage has shown there is an emphasis on processes focusing on the external world rather than on mental processes. A close analysis of a number of Description stages within each discipline, exemplified in Table 7.7, shows how the relational, verbal and material process types identified above are used to describe real world experiences. Examples are grouped according to topics described.

Table 7.7 Process type functions – Description: provide

e.g.	speaker: transcript _file ref	process type	to describe or identify:
1.	t: Munster er has this this culture exhibition _ahsem007ug	relational	exhibition
2.	t: you're using extreme long a long line _ahsem004ug	material	formal properties of writing/ film/ artwork
3.	t: he's using syntax he's disturbing the syntax the order of the words in the way_ahsem004ug	material	
4.	s: that showed er photographs er and it had three slide projection things working on three different sides of the wall_ahsem007ug	material relational	
5.	s: I mean it it is filmed in er this kind of documentary s-, style_ahsem006ug	relational	
6.	t: my own poetry does have a lot of science in it _ahsem004ug	relational	
7.	t: yes it's it's it's written of a of a mechanic_ahsem004ug	relational	
8.	s: he says who are you that I lived with walked _ahsem006ug	verbal	what happened
9.	s: oh he says to the lawyer oh you know have them all kind of thing just go away_ahsem006ug	verbal	
10.	s: he asks her if she's scared of him _ahsem006ug	verbal	
11.	s: you said there's just going to be one to six aren't there _pssem003ug	verbal	
12.	s: we got together in a line _pssem003ug	material	
13.	s: we sort of split into two little groups talking about stuff and then we just joined together _pssem003ug	material	
14.	s: er points the gun at them _ahsem006ug	material	

e.g.	example _file ref	process type	to describe or identify:
15.	s: then I went to the give and take exhibition at the er I went to not the Serpentine the V and A _ahsem007ug	material	what happened
16.	s: like when Sean Penn stands over his grave and says where's your spark now _ahsem006ug	material verbal	
17.	s: we did get Charles put four people in a a line_pssem003ug	material	
18.	s: I just started tapping Claire and then _pssem003ug	material	
19.	s: then we went into the last room which had *these big metal circles* hanging *from the ceiling* and on these *big metal discs* _ahsem007ug	material relational	what happened formal properties of artwork

The focus in Table 7.7, as might be expected in a Description stage, is on external processes, things existing or happening in the world outside. There are material and verbal processes used to talk about what happened in films or how a piece of work or writing was constructed, and relational processes used to talk about the formal properties of the entities described rather than to give opinions. Although there are a number of process types here, what is perhaps most telling is the process types that are *not* present. Examining the above examples, and indeed Description stages in general, the absence of mental processes of cognition or emotion are clear. *I think* occurs only 2.8 times per 1000 words in the Description stage, 9.8 times per 1000 words in the Evaluation stage and 12 times per 1000 words in the Interpretation stage.[34] This suggests that in this stage, students can be relatively certain about what

[34] *I think* in each stage:
Description stage – 28 occurrences: 28 /10,023 (total word count for stage) x 1000
Evaluation stage – 81 occurrences: 81/ 8280 (total word count for stage) x 1000
Interpretation stage – 162 occurrences: 162/ 13,453(total word count for stage**)** x 1000

they are talking about, and there is less chance that they will be challenged as their own opinion is not called for. How mental processes of cognition and emotion are introduced in the Evaluation and Interpretation stages where students' own voices become more overt but at the same time less certain, is discussed in Sections 7.3.2 and 7.3.3.

The above results show similarities with Donohue's (2012) analysis of film studies essays, where he notes that one student builds a particularly 'material' model of the film under discussion, with the camera, film maker or film characters as the active participants. This essay is in contrast to a more successful student essay in Donohue's study in which the participants are abstract rather than concrete and animate. In this spoken corpus however, this discussion of the concrete and animate seems to be an important part of the movement of the discussion from commonsense to uncommonsense meanings, as will become clear through the presentation of the results in the remainder of this chapter. In the Description stage in this DMG, the student is quite often the participant as we 'see' the event or artefact through their eyes as they relate what happened as in the following example in Extract 7.2.

Extract 7.2 relating what happened – Description: provide

s: I've actually *seen* it because he's redone it the trailer _ahsem008ug

One final point worth noting about the process types in this stage, in terms of the pedagogical aims of this thesis, is that where students are describing a film or a book or an artwork the 'historic present' is used most often. For example*: and he you know he looks around he looks at them* (ahsem006ug), or I was thinking of *er the Pier Work where he cuts out the kind of big half moon* (ahsem007ug). Where a student is talking about something that happened to them, that is, where they were

involved in a task or went to a gallery, the past tense is used, as in Extracts 7.3 and 7.4.

Extract 7.3 Past simple tense in Description stage 1 (elicit)

> t: yeah yeah what what was the first thing that happened aft-, after you'd read it through then what what happened next _pssem002ug

Extract 7.4 Past simple tense in the Description stage 2 (provide)

> so it meant that you had to walk around to er and you couldn't look at everything at once _ahsem007ug

A further linguistic manifestation in the Description stage of the focus on the outside world is spatial deictic reference, used as speakers show the artefacts they are describing. For example, in an Art History seminar, there are several stages with deictic reference indicative of multimodality, where the speaker is referring to slides on a projector or to postcards of artwork. Examples of this are given in Table 7.8.

Table 7.8 Multimodal stages in Art History Seminar – Description: provide

e.g.	speaker: transcript
1.	s: you mm it was *this* one which was in to-, I don't know how many sculptures ...
2.	s: anyway *this* is Menzel
3.	s: *this* is studio one
4.	s: er and er er I just got some postcards so *this* one
5.	s: and then look at that at *those* pictures which he has
6.	s: *that's* the slide that goes with it but I
7.	s: *this* was his artwork okay

ahsem007ug

Deixis can be personal *(I, you*), temporal (*here, now*), or spatial (*those, these)* (Carter & McCarthy, 2006). It is recognised that deixis, or those orientational features of language which indicate features of the immediate situation, is more common in spoken than in written language (for example, Carter & McCarthy, 2006, p. 178). As such these markers can be expected to be common in the corpus as a whole, but it is the spatial deictic markers that are particularly salient in this stage where speakers use these markers along with visuals in a way that means the utterances cannot be fully understood without the visual context.

The focus on the concrete, external world as highlighted above means that the Description stage is relatively straightforward. As such it is characterised by speaker certainty. The stage is relatively 'low stakes' and speakers can be fairly certain that they will not be challenged in the information they put forward. This speaker certainty is manifested linguistically in numerous ways from the declarative mood used where speech function is congruent with mood, to the fact that there are few interpersonal themes marking modality, although there are vague language markers as can be expected in spoken discourse. The markers used to express the fact that speakers are not certain are usually to do with when something happened or what happened rather than to modulate an opinion.

Table 7.9 exemplifies the declarative mood of this stage.

Table 7.9 Declarative mood – Description: provide

e.g.	speaker: transcript	file ref
1.	s: even animals are looking you know so like the little possum on the tree and the sort of tree lizard looking the owl	ahsem006ug
2.	s: so but then there's a moment where Witt returns from the village er and he meets someone alone on the hill	ahsem006ug
3.	s: because you you hear the woman say er he's he asks her if she's scared of him	ahsem006ug

e.g.	speaker: transcript	file ref
4.	s: you know she I think she says something about the child going to sleep it's this one er it's the I don't know how you pronounce his name is it Bressier	ahsem006ug
5.	s: also Goya was there but he was upstairs so I'll tell you about him in a minute	ahsem007ug
6.	s: er graffiti was er I'd better check cause I don't wanna get it wrong let me see let's have a look er right nineteen eight	ahsem007ug
7.	s: I got dragged about a bit and put in like almost the right position yeah	pssem003ug
8.	s: I was kind of going like that and just trying to see I don't know just see the tops or something it was just er yeah	pssem003ug
9.	s: we all discussed it	pssem003ug

Many of the Description moves are in the declarative mood as in the examples in Table 7.9. That is, the speech function of a statement is congruent with the declarative mood. This is in contrast to the Interpretation stage as will be discussed below, where a number of 'querclaratives' are used where speakers put forward opinions indirectly using the interrogative mood.

A Description stage is shown below with the key language features from the micro analysis highlighted. The seminar participants are describing a groupwork task.

Extract 7.5 Description: provide

speaker: transcript	Notes
tutor m: it was really quite at the very very end of the game it was everyone was stationary the whole field and you were just wandering around chasing this chap	relational process used to identify part of task reference to specificity part of task material processes to describe events

pssem003ug

The investigations reported above show that the Description stage, frequently the first stage in this DMG, often uses process types which describe entities and events in the outside world. There is referential language used to signal multimodality where descriptions are of visual entities, such as artwork. This stage is at the commonsense level of things that the students can see or things that happened, and speaker uncertainty relates to 'facts' rather than being used to hedge opinions.

7.3.2 Evaluation stage

If the Description stage is about entities, then the Evaluation stage is about thoughts, feelings and reactions. This focus is shown through the predominance of keywords which explicitly denote or 'inscribe' evaluation. It is also demonstrated through the main process types – mental processes of cognition and perception – and through the foregrounding of the speaker opinion. The results of the investigations that highlighted these features are shown below.

As a starting point for the analysis, and in order to contrast this stage with the previous description stage, the key words in the 379 Evaluation stages help to give a flavour of the 'aboutness' of the stages, and a way into the corpus in terms of what kind of language to investigate further. The top 40 keywords from the Evaluation stage are shown in the screenshot in Figure 7.5.

Token	N (Text)	N (Ref. Corpus)	Propensity	Token	N (Text)	N (Ref. Corpus)	Propensity
sf5134	5	1	35.55	sm5029	4	12	6.32
brilliant	10	7	28.78	comments	5	19	6.24
amazing	7	3	27.65	article	4	13	6.20
felt	13	14	22.01	sf5334	6	23	6.18
serpentine	6	3	21.33	clapping	4	16	5.93
fantastic	5	2	20.74	ha	4	16	5.93
t	5	3	15.80	contempor	5	20	5.93
pleased	5	4	13.33	found	8	33	5.75
v	5	4	13.33	unexpected	3	5	5.69
nm5326	18	35	12.19	stick	3	5	5.69
feelings	5	7	10.16	powerful	5	21	5.64
simon	4	4	9.48	numbers	8	34	5.58
harder	4	4	9.48	couldn't	9	39	5.47
managed	5	9	9.22	sf5335	3	6	5.33
thought	52	138	8.93	sf5031	3	6	5.33
pretty	9	26	8.20	goya	3	6	5.33
cube	4	6	7.90	artists	4	18	5.27
gestures	4	6	7.90	nm5019	18	82	5.20
worked	10	31	7.65	finding	3	7	5.08
sf5030	9	28	7.62	statement	3	7	5.08
beautiful	5	16	7.41	objectives	3	7	5.08
nf5302	7	23	7.21	sf5152	15	71	5.01
strange	5	17	6.97	artwork	4	19	4.99
film	12	42	6.77	love	5	24	4.94
funny	4	10	6.64	war	6	29	4.90

Figure 7.5 Keywords: Responding – Evaluation

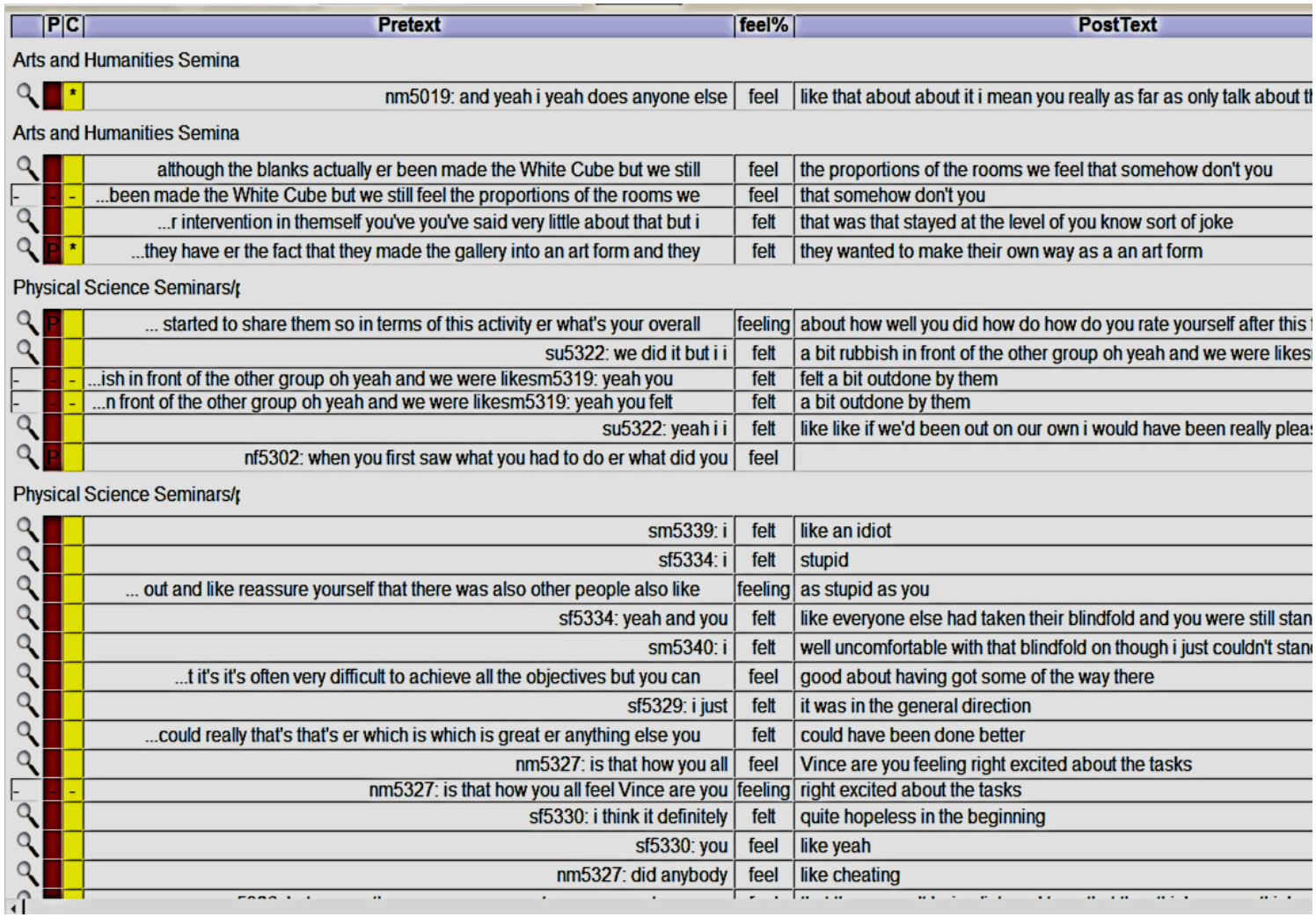
After removal of 'noise', the majority (19) of the key words above can be categorised as expressing some form of Evaluation. These are highlighted in the table above and grouped below. Some are immediately recognisable as evaluative, and others revealed as such upon further investigation. Some key evaluative language is categorised and contextualised in Table 7.10.

Table 7.10 Evaluative language in Responding – Evaluation

Language feature	Explanations and examples
1. adjectives:	*brilliant, amazing, fantastic, pleased, strange, funny, beautiful, harder, unexpected, powerful*. These are immediately recognisable as evaluative and are exemplified in the remainder of this section so are not discussed further here.
2. processes projecting evaluation (or their abstract nouns)	*felt* (*feelings*), *thought* and *find*. A concordance search for *find* in any form is made up predominantly of examples which use find as a mental process to signal evaluation as in the following examples: *i found it quite interesting _ahsem007ug* *do you find it effective _ahsem007ug* *I find it more beneficial to do it the way we do_sssem008ug*
3. lexical verbs denoting evaluation:	*worked* (a search for worked in this stage shows it used in all cases here to evaluate rather than as a synonym for labour); *managed; couldn't; stick to* (meaning to persevere with something)

Table 7.10 shows the different types of evaluative language used in this stage as highlighted in the keyword list. However, to discover more about the evaluative language used in this stage, it was useful to investigate some of these items further.

An investigation of the verbs from the key word list highlights the wide range of evaluative language that is used in these stages. For example, an investigation of the verb *feel* shows that it is used in both the AH and the PS subcorpora to project and elicit evaluation, but predominantly in the PS subcorpora where participants are responding to a groupwork task, and thus reactions are more 'personal'. The screenshot in Figure 7.6 shows the verb *feel* in context.



	P	C	Pretext	feel%	PostText
Arts and Humanities Semina					
		*	nm5019: and yeah i yeah does anyone else	feel	like that about about it i mean you really as far as only talk about th
Arts and Humanities Semina					
			although the blanks actually er been made the White Cube but we still	feel	the proportions of the rooms we feel that somehow don't you
-	-	-	...been made the White Cube but we still feel the proportions of the rooms we	feel	that somehow don't you
			...r intervention in themself you've you've said very little about that but i	felt	that was that stayed at the level of you know sort of joke
	P	*	...they have er the fact that they made the gallery into an art form and they	felt	they wanted to make their own way as a an art form
Physical Science Seminars/t					
	P		... started to share them so in terms of this activity er what's your overall	feeling	about how well you did how do how do you rate yourself after this
			su5322: we did it but i i	felt	a bit rubbish in front of the other group oh yeah and we were likes
-	-	-	...ish in front of the other group oh yeah and we were likesm5319: yeah you	felt	felt a bit outdone by them
-	-	-	...n front of the other group oh yeah and we were likesm5319: yeah you felt	felt	a bit outdone by them
			su5322: yeah i i	felt	like like if we'd been out on our own i would have been really plea
	P		nf5302: when you first saw what you had to do er what did you	feel	
Physical Science Seminars/t					
			sm5339: i	felt	like an idiot
			sf5334: i	felt	stupid
			... out and like reassure yourself that there was also other people also like	feeling	as stupid as you
			sf5334: yeah and you	felt	like everyone else had taken their blindfold and you were still stan
			sm5340: i	felt	well uncomfortable with that blindfold on though i just couldn't stan
			...t it's it's often very difficult to achieve all the objectives but you can	feel	good about having got some of the way there
			sf5329: i just	felt	it was in the general direction
			...could really that's that's er which is which is great er anything else you	felt	could have been done better
			nm5327: is that how you all	feel	Vince are you feeling right excited about the tasks
-	-	-	nm5327: is that how you all feel Vince are you	feeling	right excited about the tasks
			sf5330: i think it definitely	felt	quite hopeless in the beginning
			sf5330: you	feel	like yeah
			nm5327: did anybody	feel	like cheating

Figure 7.6 Concordance of *feel* in Responding – Evaluation

The above concordance of the verb *feel* shows how it is used in this stage to project evaluation in this stage. It shows how *feel* is used to elicit responses by the tutor, for example, *is that how you all feel?*, as well as in the responses to project personal responses, for example, *I felt stupid*.

As well as including a wide variety of evaluative language, the keywords noted above also include a number of hedges pointing to the fact that, in this stage, there is more at risk interpersonally than in the straightforward Description stage where speakers are less likely to need to make room for dissenting voices. While it is unlikely that someone will disagree with how a speaker felt about something, they may have a different view about how *they* felt about it.

For example, p*retty* as appearing in the key words above is used in all cases to downgrade an opinion in the sense of *quite*. For example, I thought *that was pretty good pretty clever so I liked that* (ahsem007ug).

As well as being used to project opinions *I think* is also used as a hedge as noted in Chapter 2. More hedging and some intensifying language are exemplified in the key phrases in Figure 7.7.

The remainder of the keywords relate to entities described, for example, *artists*, *film*, and are not discussed further.

Römer (2008), in an examination of a 3 million word corpus of book reviews, found that a more useful means of identifying evaluative language than examining keywords was to investigate 5 grams. This approach was taken up by Nesi and Gardner (2012) who used 4 grams to investigate evaluative language in reflective writing in the BAWE corpus. In the present study, because of the much smaller size of the corpus, it proved useful to investigate key 3-grams. The key 3-grams in the Evaluation stage of the Response DMG are shown below in Figure 7.7.

Feature	N (Text)	N (Ref. Corpus)	Propensity
it was quite	6	1	51.49
i thought that	11	8	32.03
it was just	10	9	25.88
thought it was	9	9	22.07
think we did	5	2	21.46
that was quite	5	3	16.35
was like oh	5	3	16.35
thought that was	6	5	16.18
i thought it	7	9	15.26
the v and	5	4	13.79
i was like	7	14	12.26
and i thought	4	4	9.81
v and a	4	5	8.83
and then i	5	13	8.49
er it was	4	6	8.17
think it was	6	19	7.74
i think we	14	48	7.15
and it was	7	25	6.87
a it 's	4	12	6.54
what sort of	4	12	6.54
i i i	4	13	6.41
there was a	5	20	6.13
'm not going	3	5	5.88
	3	5	

Figure 7.7 Key 3-grams: Responding – Evaluation

As in Nesi and Gardner's study, these 3-grams mostly reflect 'genre specific but not discipline specific characteristics' (2012, p. 240). This means that the 3-grams can be said to be characteristic of the DMG in this stage and that they are shared across disciplines. In other words, the 3-grams in the table above are used in the different disciplines to describe opinions in this DMG.

Looking at the 3-grams in Figure 7.7 it is clear that the phrases involving the lemma *think* are important in the Evaluation stage (occurring 122 times in total). An investigation of the lemma *think* shows the importance of *think* as a mental process in projecting evaluations here.

Of the 122 occurrences mentioned above, over 60 are used to introduce explicitly evaluative language as in the following examples taken from four different files in both the AH and PS subcorpora. While the use of mental processes to project opinion could perhaps be expected in this stage and is perhaps not so interesting in itself, as it has already been identified in the context of putting forward arguments, examining *I think* in context can help to pinpoint the type of evaluative language used. Investigations of *I think* highlight the wide range of language used to express evaluations, some typically 'academic' in nature, much of it more colloquial or 'creative'. Table 7.11 gives examples of the Evaluation stage with the lemma *think.* Evaluative lexis is underlined. Unless stated in brackets, the following are all Evaluation: provide moves.

Table 7.11 Responding – Evaluation stages with lemma *think*

e.g.	speaker: transcript	file ref
1.	s: I thought this is a bit trite	ahsem006ug
2.	s: so I think Witt just seems strange	ahsem006ug
3.	s: I think it is really sad I mean	ahsem006ug
4.	s: I think it some bits of it are a bit kind of crappy psychology	ahsem006ug
5.	s: it does have those moments where you think oh s you know stop this is so er you said wishy-washy	ahsem006ug
6.	s: I think that seems very rather strange and kind of arty now	ahsem006ug
7.	s: er I think it sort of it almost seems right that er his his wife should leave	ahsem006ug
8.	s: I think it's brilliant I don't think it can ever go wrong	ahsem007ug
9.	t: I think they were shallow gimmicks	ahsem007ug
10.	s: I thought some of the juxtapositions were quite crass	ahsem007ug
11.	s: I thought it was quite powerful	ahsem007ug

e.g.	speaker: transcript	file ref
12.	s: I thought that was pretty good pretty clever	ahsem007ug
13.	s: I thought that was quite interesting	ahsem007ug
14.	s: I think pleased is a good word	pssem002ug
15.	t: I thought that you were quite impressive as a group	pssem002ug
16.	s: I thought it was quite funny actually	pssem003ug
17.	s: I think we all managed to find each other pretty well	pssem003ug
18.	t: some of you thought it was funny some of you thought it was scary any other feelings (Evaluation: elicit)	pssem003ug
19.	s:I think we did good improvisation	pssem003ug
20.	t: I think you thought of the right idea	pssem003ug
21.	t: I think you did well in that task	pssem003ug
22.	s: I think it definitely felt quite hopeless in the beginning	pssem003ug

Table 7.11 shows the wide range of evaluative language that students have recourse to for making meanings in this stage, ranging from the neutral 'academic' language of evaluation *quite impressive as a group*, to the more creative *a bit kind of crappy psychology* or *wishy washy*. These final two examples are resonant of the creativity of 'common talk' noted by Carter, where he mentions cases of speakers using the extension –y or –ish to coin new terms (Carter, 2004, p. 223).

Other key phrases in the Evaluation stage show the move of this stage from the concrete where speakers can be certain about their opinions to phrases used to suggest hedging of opinions for example: *I don't know, it was just, the sort of, it was quite, was like oh, that was quite.* Examples of these phrases in context are italicised in Table 7.12.

Table 7.12 Hedging opinions in Responding – Evaluation: provide

e.g.	speaker: transcript	file ref
1.	s: er it didn't have the *sort of* buzz that contemporary art has but that was only my opin-,	ahsem007ug
2.	s: it its really powerful you know you really do well I thought I thought it *was quite* powerful	ahsem007ug
3.	t: I thought it was *quite* funny actually	pssem003ug

In Table 7.12 it can be seen how speakers hedge their opinion in this stage through using vague language. While intensifiers appear in the corpus in this stage (see *really powerful* in the example above), they are not as apparent as language downgrading opinions, and an intensifier is often followed by a downgrading of the same opinion as in the following examples.

Table 7.13 Intensifying with downgrading of opinions – Evaluation: provide

e.g.	speaker: transcript	file ref
1.	s: *which was* brilliant it was really re-, er I think *it was quite clever*	ahsem007ug
2.	s: er *sort of* and very *sort of* free verse	ahsem004ug
3.	t: I think that seems very *rather* strange and *kind of* arty now	ahsem006ug
4.	s: which is *pretty good* er anyway very *sort of* traditional display was very effective	ahsem007ug

The examples in Table 7.13 show the importance of mitigating opinions in this stage: it is rare to find students expressing very strong opinions here. Intensified evaluations such as the following are unusual:

Extract 7.6 Intensified evaluation – Evaluation: provide

> s: I thought that was really fantastic *I* thought that was brilliant what a statement_ ahsem007ug

In the extract above, there is a rare use of intensifying language woven throughout to express an opinion. Indeed, this opinion is expressed by the student who stands out as the most confident in the class and who dominates this particular discussion, perhaps akin to Ramsden's 'star' speaker (Ramsden, 2003).

As noted by various researchers, evaluation can be and often is, spread through different stages, but the focus on evaluation in this stage indicates the existence of a separate Evaluation stage which is tied to very personal reactions and a particular *type* of evaluation. Again, this echoes previous research by, for example, Hood & Forey (2005) and Recksi (2005), who note the foregrounding of particular types of evaluation in different stages in spoken academic discourse. Despite the fact that in guides to writing response genres (for example, Donohue, 2012), advice given is that emotional response or opinion is *not* what is required, in the Responding DMG in the corpus, it seems that emotional response *is* valued, if not for its own sake, then as a springboard into the interpretative part of the discussion, or perhaps as a means of engaging students in the discussion.

The value placed on personal or emotional responses in this DMG is highlighted by eliciting moves in Table 7.14, all made by tutors, in the Evaluation stage.

Table 7.14 Eliciting evaluation

e.g.	speaker: transcript	file ref
1.	t: do you find it effective you're nodding	ahsem007ug
2.	t: (..)some of you thought it was funny some of you thought it was scary any other feelings	pssem003ug
3.	t: when you first saw what you had to do er what did you feel	pssem003ug
4.	t: so in terms of your own feelings about it you know er h- did you enjoy it er what was what were your own personal feelings about...	pssem003ug
5.	t: er okay what about what you did what was what was best	pssem003ug
6.	t: is that how you all feel Jenny are you feeling right excited about the tasks	pssem003ug
7.	t: what do you think of the er the Ben Chaplin character	ahsem006ug

Table 7.14 shows that tutors elicit *feelings* from students irrespective of discipline in this DMG. The above examples are from a mix of AH and PS seminars.

While it might be tempting to transpose the requirements of written responding genres to the spoken tasks here (compare, for example, Donohue's (2012) investigation of film studies essays), the results from the analysis presented above show that this would be to miss out an entire stage of this DMG. For example, advice given for writing a visual analysis of an artist's work may be to recognise and understand the choices an artist made in terms of formal elements such as line, colour, texture etc., as well as possibly through the use of historical context. While these elements are apparent in the Responding DMG in the corpus, the seminar participants are also given more space for their own personal opinions and feelings, perhaps a reflection that the spoken mode of communication does not require the same level of objectivity, or as a way for the students to connect to the entity under

discussion and before moving on to the more ‘objective’ Interpretation stage. This is discussed further in Chapters 9 and 10.

An Evaluation stage is shown below with the key language features from the micro analysis highlighted. The student talks about the depth of characters in a war film.

Extract 7.7 Evaluation: provide

Transcript	Language features
what I *really* **like** about it is they're not **sort of you know just** flipped upside down they are **in some cases** they they are like that and **you know** they're given *real* depth and er *each one of them* is believable but you can you **could** *really* **just** in terms of describing them reduce them down to the same sort of character types as you'd see in Platoon or something	**mental process/ lexical verb** evaluative language **hedging opinion** *intensification of opinion*

ahsem006ug

The above results have demonstrated that the linguistic manifestation of this stage helps students to express their thoughts, feelings and reactions. With this move from the external concrete world to expressing opinions, there is a shift in process types to include the ‘internal’ mental processes of cognition and perception, and through the foregrounding of speaker uncertainty and hedging through which speakers present their opinions.

The linguistic manifestation of the Interpretation stage is next presented.

7.3.3 Interpretation stage

This final stage presented here, Interpretation, moves further away from common sense meanings in the Description stage and focuses on abstract disciplinary meanings attributed by speakers to the entities under discussion. This move away from concrete entities and also students’ personal reactions, is highlighted mainly through the use of abstract nouns, through ideational grammatical metaphor and

through, or perhaps resulting in, a greater level of speaker uncertainty in this stage.

As in the previous two stages in this DMG, this move towards greater abstraction was highlighted through an investigation of the keywords. The top 40 keywords in the Interpretation stages are shown in Figure 7.8.

Token	N (Text)	N (Ref. Corpus)	Propensity
reflector	9	0	45.00
craft	5	0	25.00
phenomenological	5	0	25.00
monument	7	2	19.18
philosophy	7	2	19.18
artwork	14	9	18.95
sf5027	29	19	18.59
exterior	5	1	18.27
village	8	4	14.62
nature	21	19	13.46
attention	11	10	13.40
sculpture	12	11	13.29
sf5158	14	14	12.18
nm5019	50	50	12.18
draws	7	4	11.72
museums	7	4	11.72
plaster	6	3	10.96
gallery	46	54	10.38
spaces	7	5	10.23
sf5026	10	12	10.15
seeing	8	9	9.20
art	55	74	9.05
sm5028	8	10	8.77

Token	N (Text)	N (Ref. Corpus)	Propensity
sm5028	8	10	8.77
witt	12	17	8.60
sf5030	15	22	8.31
beyond	5	3	8.12
sf5157	20	30	8.12
hero	5	3	8.12
critique	7	8	7.99
criticism	7	8	7.99
gesture	7	8	7.99
sf5156	7	8	7.99
ideas	20	32	7.61
ideal	5	4	6.85
thin	5	4	6.85
washington	5	4	6.85
minimalist	6	7	6.79
experience	12	22	6.64
man	23	43	6.52
sf5154	6	8	6.39
meaning	11	21	6.38
war	12	23	6.36
outside	26	51	6.21
sf5331	18	43	6.09
context	20	48	6.09

Figure 7.8 Keywords Interpretation stage

Through comparing the above results with the key words from the Evaluation stage of this DMG, a key difference between the Evaluation and Interpretation stage keywords can be seen immediately. This is the appearance of abstract nouns and language referring to theories in the Interpretation stage. Much of the language in this stage is ideational grammatical metaphor (of which the most common structure is nominalisation – for example, *criticism*). Ideational grammatical metaphor is, according to Halliday 'typical of the discourses of education and science,

bureaucracy and the law' (Halliday & Matthiessen, 2004, p. 636). Halliday goes on to note that ideational grammatical metaphor is learned later by children than interpersonal grammatical metaphor (such as *I think),* and 'is not part of the grammar of ordinary, spontaneous conversation that children meet in the home and neighbourhood' (ibid.). The abstract nouns in the keywords from the Interpretation stage are shown below:

- Abstract nouns: *(public) monument, philosophy, nature, war, critique, criticism, experience, context, ideas*
- Language related to theory: *reflector, minimalist, phenomenological*

Similar language features, while not appearing in the key words list are shown in the examination of other Interpretation stages as exemplified in Table 7.15.

Table 7.15 Abstraction in Responding – Interpretation: provide

e.g.	speaker: transcript	file ref
1.	s: er I think he's kind of very kind of linked to *transcendence*	ahsem006ug
2.	t: it's about it's about *divorce* and *getting back together*	ahsem004ug
3.	s: er well it's quite strongly er linked to *nature* sort of the the beauty in The Thin Red Line seems to be all surrounding the *ideas of nature and the natural*	ahsem006ug
4.	s: er because the darkness and light in it is er it is that kind of *dialectical enlightenment*	ahsem006ug
5.	s: er it's kind of set up a sort of *utopian ideal* that sets up those ideas of of *community* of *family* of *communication*	ahsem006ug
6.	s: I think it laments a *loss* of that a *loss* of that that level of humanity perhaps perhaps that ability to to see beyond the self	ahsem006ug
7.	s: so he has the he has the *colonial* he has the *spiritual* of this *juxtaposition religion* the *role of religion* and then he has the *role of desire*	ahsem007ug

e.g.	speaker: transcript	file ref
8.	s: I mean the er I think a lot of it's to do with the question of the *autonomy of gallery space*	ahsem007ug
9.	s: but it also affects *the self* it's all to do with the *self* isn't it and the *mind*	ahsem007ug
10.	s: I think *communication*'s probably the most important bit	pssem002ug
11.	s: *time management* should be a bit better	pssem002ug

Table 7.15 shows examples of students talking about more or less abstract notions. The noun groups highlighted in the above extracts, are not ‘things’ but in order to be able to talk about them, they need to become ‘thingified’ (for example, Donohue, 2012). In example 1, for example, *er I think he's kind of very kind of linked to transcendence*, the process *to transcend* needs to become ‘thingified’ in order for the student to speak about the *themes* of the film. Halliday and Martin explain how subject-specific disciplines use the process of grammatical metaphor to create their discourse in this way, through the use of meanings that are not semantically congruent (Halliday & Martin, 1993).

Transcendence in the example above is an example of subject discourse created through the use of grammatical metaphor. As noted by Halliday and Martin (1993), without grammatical metaphor ‘technicality and abstraction would not be possible. And this underlines the significance of writing in the development of discipline-specific discourses’ (ibid. 1993, p. 250). It is, precisely because grammatical metaphor is, as noted by Halliday and Martin, primarily a resource for writing, not speaking, that its overwhelmingly strong presence in this stage of the Responding DMG is so striking. Martin found that grammatical metaphor was used for creating technical discourse of Science and the abstract discourse of History. As noted by Martin (2008), different disciplines make use of grammatical metaphor in different ways. The results from the micro analysis of this stage have demonstrated that the discipline-specific uses of grammatical metaphor are key in the AH

subcorpora. However, in the PS subcorpus, where this can be said to be a non-discipline-specific DMG, grammatical metaphor is not used to refer to disciplinary terms. Grammatical metaphor has been viewed as crucial in work by SF linguists in the creation of knowledge. Recently, SFL research has opened up a dialogue with scholars influenced by Bernstein's sociological perspective on knowledge structure, focusing in part on the role played by grammatical metaphor in constructing various forms of vertical discourses of knowledge. Examples of this are Martin (2008), or the volume edited by Christie and Martin (2007), which gives a thorough discussion of this connection in the context of different subject areas.

Donohue (2012) found that students objectify events in film studies essays as material things, the elements of the film as technical things, and the meanings of the film as abstract things. The thematic formation represents how a film becomes an object of study rather than (or as well as) an experience of entertainment, all of which are paralleled by the language in the Responding DMG, with the meanings of the film becoming abstract things in this stage.

While the questions eliciting the Evaluation stage clearly called for students' opinions, the question eliciting this stage (the Interpretation: elicit move), require a higher level of thinking which relates more to disciplinary knowledge realised through abstractions such as those noted above. Questions eliciting the Interpretation stage, rather than focusing on what students feel and think, focus on why they think something was done in a certain way, what it might mean (a key 2 gram is *make of*, and is used in the question *what do you make of?*) and what they can learn from it:

Table 7.16 shows examples of how the Interpretation stage is elicited.

Table 7.16 Responding – Interpretation: elicit

e.g.	speaker: transcript	file ref
1.	t: now he's made a choice about the language he's chosen colloquial speech why do you think he's done that so what do you think	ahsem004ug
2.	t: yeah he's he's he's displaying and exposing the stereotype why do you think he's he's choosing to to do that	ahsem004ug
3.	t: now why is that poem written in that particular way what do you reckon	ahsem004ug
4.	t: he's writing for a particular point what do you think that point is	ahsem004ug
5.	s: why doesn't he drop his gun if he believes in humanity so much why doesn't he drop his gun	ahsem006ug
6.	t: so the ones you have read about what do you think they're about	ahsem006ug
7.	t: why then I think the one thing you haven't explained properly yet is why a lot of these gestures were ephemeral gestures why was that important	ahsem007ug
8.	t: what is he highlighting here	ahsem007ug
9.	t: why's he doing that	ahsem007ug

As shown in Table 7.16, the tutor is asking for reasons why something was done in a particular way. In answering these questions, students need to draw on disciplinary knowledge. It is no longer enough to say how they felt about something.

Another prominent feature of the Interpretation stage is the use of progressive verb forms to introduce interpretations as below.

Extract 7.8 Progressive verbs forms in Responding – Interpretation: provide

s: it's *kind of* saying don't believe this *kind of* nice family man thing, he's *kind of* making an observation about it, he's talking about language_ahsem006ug

The extract above shows three uses of a progressive verb form (underlined) to introduce an interpretation. Because of the high stakes of this stage, where the students are venturing into the territory of disciplinary knowledge, the combination of these progressive verb forms with hedging devices as in the example above (in italics), is common. The most common verbs used in the progressive form in this stage are shown in the screenshot in Figure 7.9.

saying	29	(8.12%)
doing	18	(5.04%)
going	16	(4.48%)
being	16	(4.48%)
making	16	(4.48%)
meaning	11	(3.08%)
trying	11	(3.08%)
beginning	8	(2.24%)
seeing	8	(2.24%)
talking	7	(1.96%)
using	7	(1.96%)
interesting	7	(1.96%)
having	6	(1.68%)
writing	6	(1.68%)
looking	6	(1.68%)
moving	6	(1.68%)
playing	6	(1.68%)
putting	6	(1.68%)
taking	5	(1.40%)
drawing	5	(1.40%)
dying	5	(1.40%)
asking	5	(1.40%)
building	5	(1.40%)
questioning	5	(1.40%)
contributing	4	(1.12%)
giving	4	(1.12%)
coming	4	(1.12%)
feeling	4	(1.12%)
exposing	4	(1.12%)
selling	4	(1.12%)
thinking	4	(1.12%)
responding	3	(0.84%)

Figure 7.9 *ing* verbs in the Responding – Evaluation stage

The second most common verb used in this form doing is generally used in tutor questions to ask for example: *What's it doing? What's he doing? Why is he*

doing that? Some other examples of this form to express interpretations are given in Table 7.17 (italicized).

Table 7.17 Progressive verb forms in Interpretation: provide in context:

e.g.	speaker: transcript	file ref
1.	t: by doing that *he's exposing* a masculine stereotype	ahsem004ug
2.	s: *he's talking* about language	ahsem004ug
3.	s: it's also *having a little go* at poetry as well	ahsem004ug
4.	t: do you think *it's asking* if there's a place for that kind of mysticism in the modern world	ahsem006ug
5.	s: and and it's i'm i'm not sure what I make of it but it kind of ju-, it wants to sort of it again it's sort of *harking back* to a lot of the other things *talking about* it's kind of implicitly *ref-, referring* without you know he's drawing the audience to make their own conclusion	ahsem006ug
6.	s: by doing that *he's exposing* a masculine stereotype	ahsem006ug
7.	s: *he's talking* about language	ahsem007ug

All of the above are uses of the progressive form of the verb to talk about the meanings of art, films or literature, and are all instances from the AH subcorpus. In the PS subcorpus where the Interpretation stage generally refers to lessons learned from the groupwork tasks, the processes can often be classified as fulfilling the role of 'suggestions' (as noted above, a speech role between a command and an offer, Halliday, 2004) about what should be done in future group work tasks.

Table 7.18 Suggestions in Responding – Interpretation: provide

e.g.	speaker: transcript	file ref
1.	s: yeah *you need to* talk to each other	pssem002ug
2.	s: time management *should be a bit* better	pssem002ug
3.	[t: just run me through how apart from knowing what the time is how would you do time management] s: maybe *like call it out* s: *give warnings*	pssem002ug
4.	t: so it's quite important that members of the team kind of *take a pause* and think about what everybody has to say before they start	pssem002ug
5.	s: *be more open-minded* about the possible problems you could have thrown at you	pssem003ug
6.	s: yeah make su-*, make sure everyone understands* the task yeah	pssem003 ug
7.	s: er or *underline the key points* like cause the first one was a really big like long bit we could underline that I suppose	pssem003ug

Table 7.18 exemplifies ‘suggestions’ made in the Interpretation stage in the PS sub corpus, and demonstrates that the Interpretation stage differs according to which of the two discipline areas in which Responding occurs. In the AHs seminars, the Responding DMG is central to the course content and so the abstractions are related to this. In the PS seminars, rather than being concerned with the disciplinary content of the PSs, the students reflect on lessons they can learn for the future from a group work task. Although it could be argued that these are perhaps two different DMGs and should not be grouped together, the similarities, that they have the same broad purpose of responding led them to be categorised together, though of course what they are responding to differs. The response to the groupwork task could be compared to a ‘reflective’ genre as noted by Gardner and Nesi (2013).

The linguistic realisation of the Responding DMG and the move from common sense and material to abstract and general meanings is further demonstrated in the two short extracts. Extracts from the PS and AH subcorpora are shown, both in order to highlight the striking similarities in grammatical realisation of the DMG, but also in order to highlight the differences. The first of these extracts is from a PS seminar where students are responding to a groupwork task.

Extract 7.9 Responding: *Pipeline*

turn	speaker: transcript	stage: move	notes
1.	[tutor f: when you first saw what you had to do] er what did you feel	Evaluation: elicit	mental process: elicits personal response
2.	Louise: oh my god	Evaluation: provide	evaluative language
3.	Kate: aft-, after after talking about it with each other	Description: provide	behavioural process: answers question: what happened?
	it was became clearer and that so	Evaluation: provide	second student builds on personal response of first student using more formal evaluative language
4.	Tutor f: yeah yeah what what was the first thing that happened aft-, after you'd read it through then what what happened next	Description: elicit	material processes tutor guides text asking what happened next?
5.	John: just decided on er started thinking about how to make the pipeline didn't we	Description: provide	mental processes to describe what happened but metaphorical as actually external verbal processes

turn	speaker: transcript	stage: move	notes
6.	Kate: yeah some people like picked up on different parts of what like the whole thing		
7.	su: the group like all together		
8.	Geraint: I think we each just pr-, you know pretty much took our own roles and then we decided who was going to be where and		
9.	Tutor f: how did that happen	Description: elicit	material process
10.	Louise: I think it just sort of happened nobody	Description: provide	material process
(further Description and Evaluation stages followed by:)			
11.	tutor f (…) is there anything you've learnt from this one that you think you might like to roll into the next one	Interpretation: elicit	mental process referring to internal world of the senser
12.	John: time management <u>should be a bit better</u> Kate: yeah definitely	Interpretation: provide	abstract noun <u>modalised suggestion</u> for future action

pssem002ug

In the initial eliciting move the tutor asks what the student felt, calling specifically for an emotional or personal response. This response is given in very colloquial terms *oh my god* and the second student then builds on this response framing it in a more 'objective' manner *it became clearer*. The description is built up through the elicitation of material processes which are provided in the past tense as students talk about what they did. In the final Interpretation stage, the tutor elicits a generalisation from the students based on the material examples of the groupwork event that they have been evaluating and the student responds by using the abstract noun time management and saying that it needs to be improved.

The following extract for comparison is from an Art History seminar and is a student talking about an exhibition she visited.

Extract 7.10 Responding *Mark Quinn*

turn	speaker: transcript	stage: move	notes
1.	Elena: [yeah sure yeah okay. I was interested because I just read an article yeah] on the Mark Quinn exhibition which was well I'll show you mm it was this one which was in to- I don't know how many sculptures it was er of disabled bodies mixed with these ideal	Description: provide	reference to slides and description given alongside this noun phrases to describe entities (the adjectives here used as part of description of formal properties rather than personal evaluation) *material process*
2.	tutor f: neo-classical		
3.	Elena: neo-classical casts and mm you know when you *walk through* there		
	it it's *really* powerful you know you *really* do *well I thought I thought it was quite powerful* and its *even more* powerful when you actually read this article and it tells you why he actually did it	Evaluation: provide	evaluative language (*amplified* and then *hedged), mental process (also has a hedging function)*
	and I *kind of* worked out why he did it it was obvious why he did it he's trying to say these people deserve the same *kind sort of* hierarchy that the you know the these sort of ideal forms have because there's no difference they're all bodies they're just bodies	Interpretation: provide	*interpretation hedged* ing form of verb abstract noun

turn	speaker: transcript	stage: move	notes
4.	Charlotte: isn't isn't he also *like playing* with <u>the fact</u> that when you have a classical statue and its missing an arm you take it for the whole body		interpretation hedged as question, *ing* form of verb
5.	Elena: yeah exactly it's all well it's the fact that you take it that you still take it as an ideal form but that you take it as an ideal form it's exactly the same		

ahsem007ug

In the above extract, the Description stage can be already said to contain some disciplinary information as the student refers to the formal properties of the sculpture she is talking about (the neo-classical casts). The Evaluation stage is then provided, again with a strong response which is then downgraded *it's <u>really</u> powerful you know you <u>really</u> do well I thought I thought it was quite powerful*. The next part is a justification of the evaluation through referring to an article and also serves to introduce the Interpretation stage, which is then attributed to an external source rather than the student claiming her own interpretation entirely.

Table 7.19 provides a summary of the key features of the Responding DMG.

Table 7.19 Responding DMG: key features

Stage **(Key language features)**
Description
Processes that describe the outside world. Material and verbal processes to describe events and relational processes to describe the formal properties of entities. Statements often bald assertions as ‘facts’ that are unlikely to be questioned.
Evaluation
Mental process of cognition and emotion; hedging and (some) intensifying language.
Interpretation
Abstract nouns, concepts, philosophies; hedging. ‘ing’ verb forms; suggestions for future action in PS seminars.

7.4 Chapter conclusion

This chapter has shown that while the DMG shows similarities across disciplines in moving from commonsense to uncommonsense meanings, there are differences in whether the abstractions used can said to be discipline specific or not. This can be said to be a result of whether the DMG is ‘core’ to a discipline or not. In the AH seminars the Responding DMG can be said to be ‘core’, whereas in the PS seminars, it is a peripheral DMG. The results have also shown how the DMG differs from parallel written genres, where the objective analysis of material objects is most highly valued: in the spoken DMG the students build up to the Interpretation or make generalisations through discussing feelings about the entity under discussion. The two less abstract stages (Description and Evaluation) are often preliminary to the Interpretation stage and this sequencing echoes the stages in child language development.

The next chapter presents the results of investigations into the final DMG – Problem Solving.

Chapter 8
Problem Solving DMG

This chapter presents results of the investigations into the Problem Solving DMG. After a summary of the function and stages of Problem Solving, its distribution across the corpus is set out, identifying it as the third largest DMG across the corpus as a whole. These results show that Problem Solving accounts for the majority of the discussion in the PS subcorpus, and for just under a third in the SS subcorpus, but barely features in the AH subcorpus. An overview of the function and frequency of the stages of the Problem Solving DMG is given, demonstrating that the Solution stage is the most common of the four stages that make up this DMG – Situation, Problem, Solution and Evaluation. The linguistic realisation of the stages is then set out in detail.

8.1 Problem Solving DMG: summary and overview of quantitative data

The starting point for discussion involving the Problem Solving DMG is a problem to be solved, with the problem set out in tutor prompts, or written tasks. The social purpose is to find one or more solutions to a problem. The problem can be presented as a hypothetical situation with an element that requires a response, as in a Law seminar where the tutor describes a hypothetical crime. Another type of problem is a real world political problem, as in a Political Science seminar where students discuss what can be done to tackle environmental problems in the Third World caused by industrialisation. A final type is that of ‘on task’ Problem Solving when students work through an equation or another problem exercise, as in a Chemistry seminar where students discuss how to bind ruthenium complexes to semiconductor surfaces as they work through chemical equations. Four stages may be identified within the Problem Solving Discussion Macro Genre: Situation, Problem, Solution, and Evaluation. Of these, if the Problem and Solution stages do not occur, the social

purpose of the DMG is not fulfilled. These are thus the obligatory stages. As with previous DMGs, the stages do not always occur in a particular order and stages are recursive. However, Problem often occurs near the beginning of the text as well as Situation, though Situation is more frequently returned to in the 'on task' problem solving texts as participants reassess their situation. Evaluation can be spread throughout the DMG. A summary of the Problem Solving DMG is given in Table 8.1.

Table 8.1 Problem Solving DMG summary

Social purpose:	to provide a solution for a problem through applying disciplinary knowledge
Stages:	Situation, Problem, Solution, Evaluation
Examples from corpus:	legal problem (Law); problem exercise (Chemistry); environmental problems caused by industrialisation in the third world (Political Sciences)

Problem Solving: overview of quantitative data

As was shown in Figure 5.1, the Problem Solving DMG accounted for 22% of the discussion in the seminar corpus. It occurred in 9 of the 17 seminars, appearing in each of the three disciplinary areas, PS, AH, and SS. The distribution of Problem Solving across the disciplines is represented in Figure 8.1.

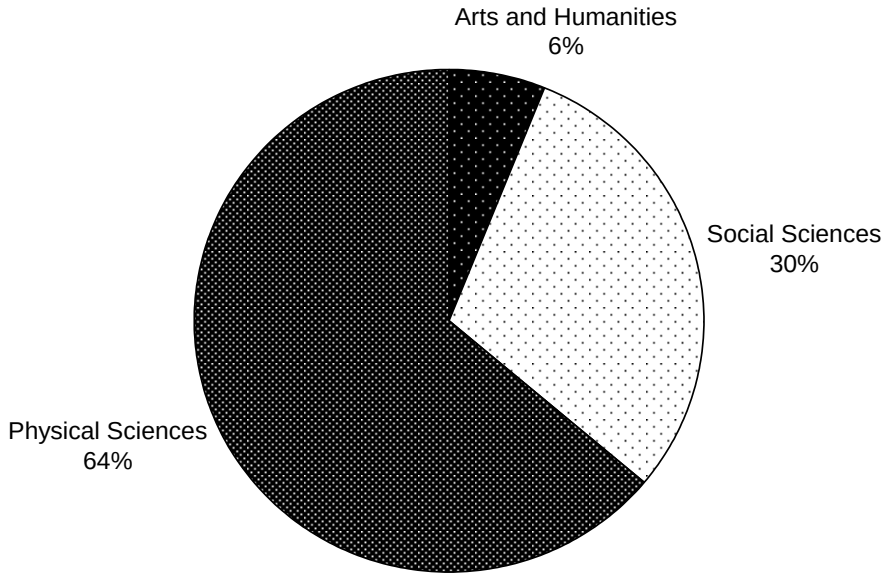


Figure 8.1 Problem Solving across the disciplines

As can be seen in Figure 8.1, the majority of Problem Solving (64%) occurred in the PS subcorpus. Some examples of Problem Solving in the PS subcorpus involved working through equations and solving practical group work tasks. Problem Solving also occurs in the SS subcorpus, where students talk about solutions to political or real world problems, or answer problem questions in seminars such as Law. In the Arts and Humanities Seminars, Problem Solving accounted for 6% of the seminar discussion, occurring only in a Theatre Studies seminar with a professional focus, where participants were discussing the practicalities of arts organisations finding funding.

The stages present in this DMG and its two obligatory stages, Problem and Solution, echo previous findings of research into problem-solution patterns in writing (Hoey, 1983; Jordan, 1984; Scott, 2001; Flowerdew, 2003). This pattern has been noted as an important form of discourse organisation in English (Hoey, 1983; Scott,

2001) and has been reported as occurring in various contexts ranging from advertisements (Hoey, 1983), to professional and academic reports in Engineering (Flowerdew, 2008). As problem solving is such a common pattern across so many different contexts it is perhaps not surprising that the Problem Solving DMG was found to be so important in the seminar discussions. It is however surprising that the pattern has not previously been investigated in seminar discussion, and that it is not generally included in current seminar teaching materials for classroom use.[35] A brief example of a Problem Solving text from a Physical Science seminar (Chemistry) is given below.

Extract 8.1 Problem Solving

Turn	stage: move	stage: move
1.	Tm: I've got say suppose you've got a g-, a silica surface or an alumina surface or a titanium surface and you want to get a metal complex to lock on to that surface and stick er really hard	Situation: provide
	ruthenia bypyridium won't be awfully good at doing this it will just wash off	Problem: provide
	but so how what what do you want to do to the ligand to make it bind to a to to a surface	Solution: elicit
2.	Jill: put a polar group on it	Solution: provide
3.	Tm: yeah er yeah put a polar group on it er is a suggestion that is that is a good suggestion actually	Evaluation: provide

pssem001ug

Extract 8.1 represents a typical sequence from this seminar in which all the stages are present in a relatively short piece of dialogue. The tutor provides a situation and a problem, and students give solutions, in an interaction of only three stages realized

[35]The online seminar skills materials EASE (Kelly, Nesi & Sharpling, 2013) does highlight language from one of the task-based problem-based seminars in the BASE corpus in terms of turntaking, but does not focus on the language required to fulfil the social purpose of problem solving.

over four moves. This is a ‘rapid fire’ Problem Solving sequence in contrast to other Problem Solving sequences which have longer stages (see Appendix 6 for a visual representation of the difference between a rapid fire on-task Problem Solving task and a drawn out problem solving discussion where the stages, although grammatically similar, are much longer).

8.2 Problem Solving: stages and moves

Next, the stages and moves in the Problem Solving DMG are identified and exemplified. The frequency of stages is also given, showing that although both obligatory stages are always present, Problem and Solution differ greatly in their frequencies. Table 8.2 sets out the possible stages and moves in Problem Solving and shows how the different stages can be made up of individual moves. In the left column is the stage: Situation, Problem, Solution and Evaluation, and in the right column, the moves within each stage (showing whether it is eliciting or providing information). Obligatory stages such as Problem and Solution are defining of the genre. These are not bracketed. Optional stages are shown in brackets (Situation and Evaluation). The social purpose of the genre can still be fulfilled without these optional stages and resulting moves.

Table 8.2 Stages and moves in the Problem Solving DMG

Stages	**moves**
(Situation)	Situation: elicit
	Situation: provide
Problem	Problem: elicit
	Problem: provide
Solution	Solution: elicit
	Solution: provide
(Evaluation)	Evaluation: elicit
	Evaluation: provide

Descriptions and probes for each stage, and probes and examples for each move, as well as common language patterns, are provided in Table 8.3.

Table 8.3 Problem Solving: stages, moves, probes and examples

Functional stage* *& description*		
Probe	Move	Examples ** * _file ref
(Situation) *Details about the situation*		
Asks the question: Who/ what/ when/ where are we talking about?	Situation: elicit	sf1: so where are the sm1: yeah where are the barrels _pssem002ug
Answers the question: Answers the question: Who what/ when/ where are we talking about?	Situation: provide	sf2: one at this side one at the other side to collect and put it in _pssem002ug
Problem *The issue that needs resolving*		
Asks the question: What part of the situation requires a response?	Problem: elicit	tm: ..Lucy where would you start Lucy: er I suppose in establishing wha-, what actual crimes took place] _sssem006ug
Answers the question: What part of the situation requires a response?	Problem: provide	ruthenia bypyridium won't be awfully good at doing this it will just wash off _pssem001ug

Solution ***Possible action to be taken to solve problem (does not need to be a positive outcome)***		
Asks the question: What action could be or was taken?	Solution: elicit	tm: the question is how do you convert this through to O-H_pssem001ug
Answers the question: What action could be or was taken?	Solution: provide	Jill: you just add radiation that would split from this_pssem001ug
(Evaluation) ***Opinion about the success of the solution suggested/ attempted***		
Asks the question: Would the action suggested be successful in addressing the issue/ was it successful?	Evaluation: elicit	Simon: is that a good idea or not _pssem002ug
Answers the question: Would the action suggested be successful in addressing the issue/ was it successful?	Evaluation: provide	tm: so so you you you you you were certainly i-, with H-two-O-two you were in the right kind of ballpark _pssem001ug

* optional stages bracketed (…)

** additional context shown in square brackets […]

Table 8.4 shows the frequency of these stages in the corpus.

Table 8.4 Frequency of Problem Solving stages

Stage	Total number of stages
Situation	189
Problem	76
Solution	548
Evaluation	313

Table 8.4 shows that, even though the Problem stage is crucial to this DMG, it appears much less frequently then the other obligatory stage, Solution. This is because alternative solutions are put forward for any one problem. As noted by McCarthy and Carter of written texts, '[i]f positive evaluation for any particular solution is withheld the writer naturally returns to consider other positive solutions' (2014, p. 55), and the same can said to be true here. The Solution stage sits at the disciplinary core of this DMG: this is where speakers are actively applying their disciplinary knowledge. As speakers often evaluate one solution, and then put forward alternative solutions, the Evaluation stage is another frequent stage. Situation occurs 189 times and is a stage that is often returned to after the evaluation of a possible solution.

As with the other DMGs, the stages are a necessary simplification of the data. That is, the categories are wide enough to allow for recognition of both grammatical similarities and differences in stages across disciplines. So for example, while Problem Solving texts in the Law seminar could have been further divided to follow the categories commonly used by researchers of legal academic English under the acronym IRAC (*Issue, Rule, Analysis, Conclusion*, for example, Candlin et al., 2002), here they are categorised according to the more general Problem Solving DMG stages pattern.

8.3 Problem Solving: linguistic realisation

The next section describes the key language features in the stages of this DMG, showing that the DMG shares certain linguistic features across disciplines even although field and task may differ. Overall, this DMG is manifested in the corpus as a primarily collaborative DMG, which the results of the micro analysis presented below help to highlight.

8.3.1 Situation stage

The linguistic manifestation of the Situation stage shows its focus on time, place, people and entities around which the problem is centred. Relational and existential processes are important, when the participants talk (perhaps unsurprisingly) about what there is and about what they *have got* (mainly in a metaphorical sense), before going on in the Problem stage to signal the problem with these entities.

An investigation of the most common verbs as well as the key phrases for this stage shows the focus on time, place and people. *Be, get* and *have* are the three most common verbs in this stage compared to *be, do* and *have* in the discussion corpus as a whole (see Appendix 7 for a lemmatised frequency list of verbs in this stage). Although these verbs can be used in a number of ways, investigation shows that in this stage, the three top verbs are often used as relational processes. Relational processes, processes of being and having, are used to categorise and identify (Halliday & Matthiessen, 2004, p. 210) and, particularly relevant for learners of English, have a 'distinct grammar' of an unmarked present shared with mental processes (Halliday & Matthiessen, 2004).

These relational processes can be further divided into intensive (*x is a*), possessive (*x has a)* and circumstantial (*x is at a*) subtypes (Halliday & Matthiessen, 2004, p. 216). Examples of each are provided from the corpus and discussed in terms of what is identified and who possesses.

Extract 8.2 is an example of a relational attributive possessive as the tutor sets the scene for the problem in a PS seminar.

Extract 8.2 Problem Solving – Situation: provide

turn:	speaker: transcript	elements of process
1.	so if *we* had some meth-, if *we* had some methanol in er a container	*Carrier* *process relational: attributive* Attribute

pssem001ug

Extract 8.2 is a relational attributive process showing possession, where we is the Carrier, talking about what *we* have, the Attribute (*some methanol in a container*).

The reason that *get* replaces *do* in the frequency list for this stage (as compared to the discussions as a whole) is tied to its use in the phrase *'ve got* to express possession. Although Halliday and Matthiessen (2004, p. 239) state that '*have* is the unmarked verb in attributive clauses of possession', here *have got* is often used, a more common colloquial form. Likewise, the focus on relational processes is shown through an investigation of the top 2 grams: *it's* and *'ve got* are the top 2- grams in this stage (see Appendix 7 for a lemmatised list of verbs in this stage). Because of the unexpected occurrence of the phrase *'ve got* as a relational attributive process of possession in this stage, and as something that is particular to the Situation stage in spoken rather than written problem solving texts, the results of the investigations into this phrase are presented below. These investigations showed that *'ve got* is used mainly in the Physical Science subcorpus to talk about the starting point for the problem, and the collaborative nature of the DMG is borne out in the fact that it is usually the collective *we've got* or *you've got*, signalling that the students are or will be working together to solve the problem. Table 8.5 gives examples of the relational process featuring in *you've got* or *we've got* to talk about possession in this stage. What participants are referring to, the Attribute: possessed, is categorised in the right hand column.

Table 8.5 Relational attributive process with *'ve got* in Situation stage

Key : *Carrier* (italics) Attribute (underlined)

e.g.	speaker: transcript	file ref	function
1.	t: *you'*ve got a a g-, a silica surface or an alumina surface	pssem001ug	establishing the entities around which problems centre
2.	t: I'll call it M-O *you'*ve got on the surface *you'*ve got O-two-minus ions all the way down and *you'*ve got M-two-plus	pssem001ug	
3.	t: *you*'ve got a set of products and then *you*'ve *you'*ve got a mechanism there	pssem001ug	
4.	t: so suppose *you*'ve got some glycine in water	pssem001ug	
5.	t: so *we'*ve got two principle crimes	ssem006ug	
6.	s: *we*'ve got four long ones and four small ones	pssem002ug	establishing resources available to solve problem
7.	s: have *we* got any more bits	pssem003ug	
8.	s: *we*'ve got ten minutes to do it	pssem003ug	establishing time allowed to solve problem
9.	s: *we*'ve still got five minutes	pssem003ug	
10.	s: *we* have got ten minutes to move	pssem003ug	
11.	s: how long have *we* got to actually complete the whole thing	pssem003ug	

In Table 8.5 the focus on the time, place and entities around which the problems centre is identified through the use of the relational attributive process. The phrasing *'ve got* to indicate possession in this stage is perhaps a feature that is particular to the British context of the corpus used in this study. A comparison of how the relational attributive possessive is expressed in comparable corpora (for example, MICASE for American English or VOICE to look at English as a lingua franca), would be a worthwhile endeavour. However, even though different realisations maybe used, it is worth pointing out for learners the use of the simple aspect in this stage.

Extract 8.3 shows relational processes with *it's* in this stage.

Extract 8.3 Relational attributive processes in Problem Solving Situation stage

speaker: transcript	elements of process
well *it*'s not an aqueous solution *it*'s just ac- just pure crystalline D-N-A one of oh that's I'll do it here if your surface is down here so basically *it*'s a metal oxide surface	*identifier* *process relational: identifying* identified

In Extract 8.3, the speaker is *identifying* the participant through the use of a relational identifying process.

As well as the use of relational processes to identify and categorise in this stage, another common feature of this stage is the collective nature of the participants who will be discussing the problem or whose problem is to be discussed, thus demonstrating the collaborative nature of this DMG. In Extract 8.3 (in italics), the collaborative nature of the stage is evidenced through the use of the collective *we* as well as *you* as the Carrier. These pronouns *you* and *we* occur more regularly in this stage than *I*, which is placed low down the frequency list at number 11. This is unusual in spoken discourse: for example, in the spoken component of the BNC, *I* is second, *you* third, and *we* is at position thirteen (Leech et al., 2001). However, because this stage in Problem Solving DMG often involves the tutor setting the stage or the students clarifying the situation, in both cases, the collective *you* or *we* is often used. While *we* as a pronoun is uncommon in spoken discourse generally (Leech et al., 2001), it has also been shown to be important in 'problem solving' talk in business meetings (Handford, 2010).

The word frequency list for the Situation stage is shown in Figure 8.2 with the personal pronouns highlighted.

Token	Frequency
the	160
it	100
to	81
's	74
you	65
a	64
and	64
we	58
su	51
that	51
i	45
so	44
have	40
of	39
yeah	35
are	34
er	34
've	34
is	33
in	33
got	33
but	32
be	31
can	29
get	26
there	25
minutes	23
at	22
was	21
he	20
or	20
on	20

Figure 8.2 Word frequency list – Situation stage

The above frequency list may not, at first glance, demonstrate the collaborative nature of this stage: *a singular you* could in fact be considered oppositional (see Chapter 6 where *you is* shown to highlight differences in opinion and signals a more oppositional style of discourse). However, further investigations showed that a singular *you* is not used at all in this stage. The collective use of *you* in this stage is exemplified in Table 8.6.

Table 8.6 Uses of *you* in the Situation stage

e.g.	speaker: transcript _ref	use of *you*
1.	t: so suppose *you've* got 've got some glycine in water and *you* gamma irradiate it_pssem001ug	*you* as one or we to introduce hypothetical problem
2.	t: *you* have twenty-five minutes to deliver your oil and bring all of your equipment_pssem002ug	*you* refers to group of students who will be working together

Table 8.6, exemplifies the main uses of *you* in this stage from the PS subcorpus. In the first example, *you* is used by the tutor to exemplify a hypothetical situation *if you've got x*, where *you* corresponds to the more formal written *one*. In the second, you refers to the group of students who will be working together in the group work task.

Previous researchers commenting on the language of 'situation' in problem-solution texts in relation to written or hypothetical texts has been that situation includes 'situational features', that is, where certain connectors such as *while* or *when* can be inserted into the discourse (Hoey, 1983, p. 45), or lexical features such as those features shown above focusing on time or place. However, more interesting than the fact that these results confirm previous findings about written and hypothetical problem solving texts is that they extend the 'situational features' to include situational features pertinent to the context of Problem Solving in spoken academic seminar discussions. The results highlight that a key situational feature of this particular spoken context is the collective participants *you* or *we.*

In fact the role of the participant in problem-solution patterns has been noted before as crucial: 'a problem can only be a problem for someone' (Hoey, 1983, p. 95). This has been demonstrated using the example of simulated computer-human interaction in the context of a chess game (Davy & Longuet-Higgins, 1978, cited in Hoey, 1983, p. 95), where the interaction is marked through problem-solution patterns running through it, as the protagonist and antagonist both face problems.

Therefore, the following elements are visible: *your situation*, *your problem*, *your response* and *your solution*. These run alongside *my situation, my problem, my response* and *my solution*, creating a rather marked discourse (Hoey, 1983) Also, although outside the field of EAP, Angouri and Bargiela-Chiappini, in investigating the problem-solution pattern from a sociolinguistic perspective, found the importance of the stage of negotiating 'ownership' of a problem (Angouri & Bargiela-Chiappini, 2011). Through the corpus used in this study, *our situation*, *our problem*, *our solution* and *our evaluation* appear.

Even though the second person is used, this is used to refer to the group collectively, and the students then work together to discuss the problem. The collaborative nature of the discourse is still borne out in a number of ways where the key participants in a stage are not *we* or the collective *you.* That is, when students discuss the problem of a third person singular or plural (as in the discussion of problems faced by women in the third world), or where the first person singular is used to describe a problem that they themselves have dealt with.

An example of a situation stage is given in Extract 8.4, with key language features discussed above indicated.

Extract 8.4 Situation stage

speaker: transcript	**language features**
t: if your surface is down here so basically it's a metal oxide surface M-, I'll call it M-O you've got on the surface you've got O-two-minus ions all the way down and you've got M-two-plus ions say it's suppose it's er a binary er er I'll I'll put it as M-two-plus if you've got a ligand say by p-, the ruthenium complex with a ligand	if/ suppose mark hypothetical situation your: collective participant relational processes

pssem001ug

The results from the Situation stage have a focus on what, when and where, and who will be dealing with the problem. They highlight the collective nature of this stage through the use of collective participants.

The results from investigations into the Problem stage will now be presented.

8.3.2 Problem stage

In moving from Situation to Problem in text, there are various indicators of the existence of a problem that needs solving. These are lexical indicators of negativity as well as textual references of clause relations such as subordinators and conjuncts (for example, Hoey, 1983). This analysis focuses on the lexical indicators of the problem stage. This is because previous researchers have noted that it is in lexical indicators that the difference in expert/novice language can become apparent, when students can overuse metalanguage to signal the problem-solution pattern. This is possibly because 'they lack knowledge of the range of implicit verbs (e.g., *alleviate, eliminate)*' (Flowerdew, 2003, p. 101). However, what I provide here is only a brief analysis, due to the fact that there were only 76 stages identified as the Problem stage, and many of these consisted of the tutor eliciting the problem.

By way of introduction, Table 8.7 sets out some negative lexical items from the Problem stage in the corpus. This lexis was extracted using UAM CT's 'subjectivity tool',[36] and is sorted below according to discipline area. However, it is important to note that such overtly negative lexis identified is only very small sample of the language expressing negativity identified in this stage, with the interpretation of negativity closely tied to context, as will be shown in the remainder of this section.

[36] UAM CT subjectivity tool categorises lexis from 'strong negative' to 'strong positive'.

Table 8.7 Negative lexis in the Problem stage

Lemma	AH frequency (files)	SS frequency (files)	PS frequency (files)
lack	2 (1)	-	2 (1)
need	1 (1)	1 (1)	5 (1)
problem	-	7 (2)	3 (1)
crisis	-	3 (1)	-
murder	-	3 (1)	-
false	-	1 (1)	-
difficult	1 (1)	1(1)	-
imperialists	-	1(1)	-

Table 8.7 shows that the lexis that, as well as indicating a problem, has a discourse-organising function (belonging to what Winter terms 'vocabulary 3' items (Winter, 1977))[37], is more common than more specific terms indicating a problem, or metalanguage indicating a problem. For example, *problem* occurs 9 times, while *offence*, particular to a Law seminar, occurs only 4 times. It is perhaps unsurprising that these more general terms occur more often across the corpus while the more specific terms are subject-specific, but it is how these terms are used in conjunction with one another in the context that is of interest. Lists of lexis that appear in the Problem stage and other stages in various problem-solution texts have been previously supplied for example by Flowerdew (2003) (in professional and student engineering reports) and by Jordan (1984), although as noted by Flowerdew, Jordan's is 'a somewhat random choice of various text segments covering different genres and register' (Flowerdew, 2008, p. 7). The lexis outlined above can therefore

[37] Winter suggested that it is possible to signal a clause relationship in three different ways. These are through subordinators ('vocabulary 1) conjuncts (or vocabulary 2) and lexical signals that signal relations between portions of texts (vocabulary 3). Examples of vocabulary 3, or discourse organising lexis are from Winter's list are *cause, point* and *situation*. (Winter, 1977).

add to these lists of lexis indicating the Problem stage in a spoken context across various disciplines.

Out of context, however, this isolated negative lexis presented in Table 8.7 does not tell us a great deal except to provide evidence for the existence of a problem solving pattern (Winter, 1977, 1982; Hoey, 1983; Jordan, 1984; Flowerdew, 2008). Learners need to know how to use this kind of vocabulary in context. It is therefore useful with regard to the pedagogical aims of this thesis to examine examples of Problem stages, to see how the negative lexis helps to focus on the sense of problem, but also where more implicit negativity is signalled, and to investigate negativity that is not picked up through the use of corpus tools.

Extract 8.5 from the SS subcorpus shows how the build-up of negative lexis contributes to focus on the sense of problem. The extract is from a seminar on gender and globalisation where the students are discussing the problems facing women in the third world as a result of globalisation.

Extract 8.5 Problem: provide from SS subcorpus

turn	speaker: transcript
1.	Tamara: (…) [as the consequences of structural adjustments have become institutionalised in the global development process] and in times of **crisis coping strategies** of women have now become **embedded** in their daily lives
2.	Ginevra: in their daily lives
3.	Tamara: so they've gone from they've gone from a point of of living the way they lived to to **crisis** of that kind of **crisis** every now and again is what a **permanent crisis** is

sssem002ug

In Extract 8.5 there is a clear sense of the problem created through the negative lexis woven throughout the stage (bolded). In turn 1, when the speaker talks about the coping strategies of women, what seems like it might become a solution is in fact the problem which becomes embedded in the lives of women. This is also an example of ‘multilayering’ in the problem-solution pattern, where what seems to be the solution in fact becomes the new problem (Hoey,1983, pp. 81-106).

At this point it is useful to return the terms *inscribed and evoked* (following Martin & White, 2005) in terms of identifying the resources used by students for meaning making in this context. Explicitly evaluative lexis where the evaluation is encoded in the word is termed *inscribed.* Superordinate lexical items such as *problem* and *solution* belong to this category. *Evoked* on the other hand, refers to 'meanings which invite a reaction' (Martin & White, 2005, p. 289). As stated by Flowerdew (2003):

> An item in this category, such as *noise*, has an intrinsically less negative connotation than an Inscribed item, such as *problem*, although a reader's conventional interpretation may still include a negative connotation for the word when seen out of context. (p. 494)

In an item where the negative meaning is not stated explicitly, but requires a reading of the context, the attitude is evoked.[38] Although there are some difficulties with this kind of classification (as noted by Flowerdew, 2003) and there are often borderline categories (Martin, 2005), it is nevertheless a useful distinction for categorising those terms in which negativity is intrinsic to the word and those where the interpretation of negativity involves more context. In Extract 8.5, both types of negative evaluation are used by the speaker, who uses inscribed evaluative items, such as *crisis*, together with terms which evoke a negative evaluation and have a particular relevance for the topic – gender and globalisation – such as *embedded*.

To explore how the inscribed and evoking lexis functions in the extract above, we can examine the word crisis. Without the use and repetition of *crisis* in turn 3, it would not be clear that *embedded* is being used to express negative evaluation. A further example of evoked negative evaluation is the expression *daily lives* which, echoed as it is by speaker 2, helps to contribute to the overall negativity running through the text. *Daily lives,* on its own does not necessarily have negative connotations, but viewed in context of women's lives globally, it is clearly value laden and as stated by Martin and White: '[i]nscribed attitude… launches and subsequently reinforces a prosody which directs readers in their evaluation of non-attitudinal

[38] Though the categories and labels have changed with the developing theory, "evoked'' is preferred here to describe meanings where evaluation is invited.

ideational material under its scope' (2005, p. 64).

In Flowerdew's work on a corpus of professional and student engineering reports, the overuse of the *inscribed* meanings in the problem-solution pattern is a sign of the 'students' lack of verbal lexical knowledge which led to the overuse of the pattern solution+problem instead of using the lexicogrammatical pattern of implicit causative verb (e.g., *alleviate*, *minimise*) + problem' (Flowerdew, 2003, p. 506). In this study however, the high use of inscribed lexis signalling the Problem stage is indicative of the spoken mode of communication, although it is certainly the case that more adept participants in the problem solving DMG will have recourse to a greater variety of options for evoking as well as inscribing evaluation.

Two examples are provided in Extracts 8.6 and 8.7. The first shows a high use of inscribed lexis or discourse-organising words for expressing negativity which do not tell us much about the problems under discussion. The speaker in the second example, (a tutor) employs a greater amount of disciplinary lexis evoking negativity and signalling the particular problems. Negative lexis is marked in bold, discourse-organising lexis, which inscribes negativity, bold and underlined):

Extract 8.6 Negative lexis in Problem: provide

turn	speaker: transcript
1.	Kim: yeah and er the the **problem** with women and structural **problems** also is they've got a very high expectation er of the **result** they've been promised if we come in we'll do this to you if
2.	you do the programme this way in which you haven't done it in the
3.	past this and this will be the **result** if it is not achieved women become very what's the English word Petra: **disheartened** Shereen: yeah **dismayed disillusioned** ach you people come in from the west and you told me it won't be like this you're nothing else but the **imperialists** and you know what I mean

ssem005ug

The discourse-organising words, *problem, results*, uttered by the student, lead to the expectation that the problems or results will be explained in more detail, but they are not. That the speaker is a NNS, as indicated by *what's the English word*, is not relevant here (see Chapter 4). The terms *dismayed* and *disheartened* and *not achieved* also inscribe evaluation. *Imperialists* evokes negative evaluation although its meaning depends on context and it could be argued to have mainly negative connotations in contemporary use.

In extract 8.7, a Problem stage outlining the funding problems faced by small arts organisations provided by the tutor, is much shorter but also more descriptive, as the tutor uses evoked negative evaluation to talk about the problems suffered by small arts organisations in gaining funding. Evoking (bold) or inscribed (italics) negative attitude is highlighted.

Extract 8.7 Problem: provide (negative attitude)

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t: when a **small organisation** that has *suffered from* a *lack of* government funding or a *lack of* public funding and then needs to make that five percent to **survive** then the *decisions become much more difficult* and they may be **inclined** to **give away** more than the money is actually worth

---

ahsem010pg

In Extract 8.7 *small organisation* only becomes a negative evaluation by virtue of the context. It is because the organisation is small that it lacks public funding. Disciplinary, contextual knowledge is needed to know that art organisations in order to *survive* must be involved in difficult (ethical) decisions about the funding they accept and that feel pressured to *give away* more than the money is worth. Some of this negative evaluation would not have been picked up by corpus analysis alone, but as noted by McCarthy (1984) and Carter (2012) readers search for *motivation* in text, and therefore even without an extensive use of inscribed discourse organising words, this text functions to outline the problems that art organisations face through recourse to disciplinary vocabulary.

The above investigations into the negative lexis in the Problem stage have shown that speakers need the ability to draw on lexis both inscribing and evoking negativity in this stage. Furthermore, while discourse-organizing terms can be generalised across disciplines, students also need to be aware of the more discipline-specific lexis used to evoke negativity.

The next subsection of this chapter presents results of investigations into the linguistic manifestation of the Solution stage.

8.3.3 Solution stage

The high number of Solution stages in this DMG (548 in total) points to the fact that solving a problem using disciplinary knowledge is the central function of this DMG. It is here that the students have most opportunity to display their disciplinary knowledge and so this is the 'main disciplinary business' at hand. For these reasons, more space is allocated to the results for this stage than for the other Problem Solving stages.

A move from the Problem stage to the Solution stage is indicated in various ways. The results presented here focus on the material processes that are key to the solutions, and the desiderative mental processes, realised for example, by the verbs *need* or *want* (Halliday & Matthiessen, 2004, p. 225) that elicit and project these material processes. Multimodality in this stage is discussed, and finally lexis indicative of the Solution stage presented. It is in this stage that the collaborative nature of this DMG is most clearly demonstrated. Participants often work together to co-construct the Solution stage. How this collaboration is manifested linguistically is highlighted in the results from the micro analysis.

Firstly, prompts eliciting the Solution stage are given. Prompts for the Solution stage, that is, the Solution: elicit move, can be questions such as *how would you …?* and material processes with instructions or imperatives *convert x to y* as in the examples in Table 8.8.

Table 8.8 Solution: elicit

e.g.	speaker: transcript	file ref
1.	t: how you can tether them to start with?	pssem001ug
2.	t: can you give some examples of how the environment can economists are trying to solve these costs?	sssem005pg

The two examples in Table 8.8 are both commands expressed through interrogatives and the modal *can* following Halliday's notion of 'incongruent speech roles' (Halliday & Matthiessen, 2004, p. 636).

Another common way of expressing a prompt for a solution are the mental processes that indicate the presence of an eliciting move, for example, the use of *want* or *need* for prompts, together with material or sometimes behavioural processes that give the solutions – *build, convert, organise, identify* – as participants talk about what they have to do in Solution stage.

The following extract is a mental process projecting a material process in the prompt for this stage:

Extract 8.8 Use of mental process in Solution: elicit

> t: what what do we need to *drive* methyl chloride through to that into that _pssem001ug

In Extract 8.8, the mental process *need* elicits the solution of what it is that they need to do in order to *drive* the methyl chloride through.

The following further examples show how the Solution stage is elicited using mental and material processes.

Table 8.9 mental and material processes – Solution: elicit

e.g.	speaker: transcript	file ref
1.	t: so if you er **want** to *take us through* it	pssem001ug
2.	s: it's embedded yeah but we **need** to know er what *can* women's groups *develop* I mean what *can* effectively *be done*	sssem002ug
3.	t: let's hear it how you *can tether* them to start with if you **want** to *tether* a complex to a polar surface	pssem001ug

In Table 8.9, the mental processes (bolded) prompt the material processes (italicised). In the eliciting move, superordinate material processes are used, for example *do*, and in the responses, more disciplinary-specific material processes are used, for example *tether*. So while the grammatical patterns are common across disciplines (mental process + material process), the lexical realisation of the Solution is discipline specific. This is exemplified in Table 8.10, which compares Solution stages from a PS seminar with those from a SS seminar.

Table 8.10 Mental + material processes in Solution SS and PS compared

e.g.	speaker: transcript (Social Science seminar)	move
1.	s: it's embedded yeah but we **need to** know er what can women's groups *develop* _ssem002pg	Solution: elicit
2.	s: what they **need** to do is to er *group together* as women they need to *identify* as they have to the task they need to to identify as they have to the task the need to *set up* er movements_ssem002pg	Solution: provide
3.	s: maybe third world people need to *reunionise or unionise* themselves_ssem002pg	Solution: provide
4.	s: what **they need to do** one of the reasons of coming forward is that that they have to *take on board take on board* the responsibilities of determining their lives _ssem002pg	Solution: provide
e.g.	**transcript (Physical Science seminar)**	
5.	t: if you have the quartets a very complex p-, ground state you **need to** *excite* it with er could be with visible light actually	Solution: provide
6.	t: taking methyl chloride through to C-H-three C-L-minus what do you **need** to *add to* methyl chloride to push it over to the right	Solution: elicit
7.	t: so how what what do you **want to** *do* to the ligand to make it **bind** to a to to a surface	Solution: elicit
8.	t: if you **want** to *tether* a complex to a polar surface what's the best thing to *do* to it _pssem001ug	Solution: elicit

Table 8.10 demonstrates the use of superordinate mental processes that are used across all disciplines such as *want* and *need* (bolded), and the subordinate material or behavioural processes that are elicited which can be said to be more discipline specific and related to field (italicised). The above results further demonstrate that students need a handle on superordinate terms as well as the more discipline-specific terms. The discipline-specific processes are discussed in more detail below

as they are manifested in the SS and PS subcorpora.

The discipline-specific process types in the SS and PS subcorpora can be characterised by the fact that in the PS subcorpus the process types are material process types and in the SS subcorpus, they are often metaphorical material processes or behavioural processes. Table 8.11 demonstrates this distinction with an examples from each of the two subcorpora.

Table 8.11 Process types in the PS and SS Solution stage

Participant	***mental processes***	**material processes: examples from corpus**	**discipline area: process type**
we/ you	**need** **want** **have to**	*take on board* *unionise* *identify* *develop* *set up*	SS: metaphorical material processes crossing over into behavioural processes
		twist *tether* *excite* *drive* *add* *go (back and forth)*	PS: concrete material processes

As exemplified in Table 8.11, while the social scientists *unionise* and *identify,* for physical scientists problem solving is about concrete actions of *exciting* chemicals or *adding*. These results parallel the research of Martínez (2001) who found that material processes dominated in the method sections of scientific research articles she investigated, as it is the section that described what was going to be *done*. Different process types in academic writing have been examined before by Nesi and Holmes (2009), who found that there is a difference in the way that hard, soft, pure and applied disciplines construct knowledge, and this distinction is echoed in the results of the current study. Such a difference in process-type patterns has been usefully referred to as the 'experiential signature' (Matthiessen, 1995, p. 360), a notion I will revisit in Chapter 9.

Apart from the mental processes used in the congruent elicitation moves for the Solution stages, as shown in Table 8.11, there are a number of other metaphorical and more colloquial elicitations, so that a prompt for this stage is not always a question directly asking for the solution. Some examples are given in Table 8.12.

Table 8.12 Solution: elicit – metaphorical realisations

e.g.	speaker: transcript
1.	t:any on-, any offers from anyone
2.	t:have a crack at that one
3.	t: let's hear it
4.	t: so any any thoughts on that one

pssem001ug

The above examples all show an 'informal' or 'conversational' tone where tutors are down toning a potentially face threatening act (Brown & Levinson, 1987). In fact these 'polite' elicits may pose more problems for learners than direct elicits.

Having shown the different ways of eliciting solutions that are used in the corpus, I now turn to the realisation of the Solution: provide move. The most common verbs for this DMG (see Appendix 10) show a focus on material processes in the Solution stage. It is perhaps not surprising that material processes are common in the 'on task' Problem Solving genres where participants are working through equations or a talking about a group work task, as in Extract 8.8 However, material processes are also important in the Social Sciences and Arts and Humanities in the discussion of solutions to hypothetical or real world problems. The following extract is taken from an Arts and Humanities (Theatre Studies) seminar. The student is talking about the problems arts organisations have in gaining funding, and the fact that it is very difficult for them to ensure that the public is aware of the sponsors. Language features discussed up to now are highlighted in the right hand column.

Extract 8.9 Problem Solving: *get up a gobo*

turn:	speaker: transcript	Stage: move	notes
1.	[can I just say mm I've noticed] in Manchester there's a er new concert hall *that's been open* for about two or three years now called Bridgewater Hall	Situation: provide	existential process (there is) *relational process* (been open) Circumstance indicating time/ place (for about two/ three years)
	and they've obviously noticed this thing they've [i talked to someone at the development department an they said] mm not many people actually notice the logos in the programmes or those sort of things	Problem: provide	[intertextual ref- indicates source] conjunction *and* indicates move onto problem stage; lexis signalling negative part of situation (implicit – thing/ notice not picked up through corpus analysis without context – an example of invoking negative evaluation in Problem stage)
	they've actually got up a gobo you know like a projection of a slide on to the wall as you come in so for each concert they have a projection of you know this concert is being sponsored by Midland Bank	Solution: provide	material process (got something up meaning set up) key to solution stage the clause from *like* is an explanation of what they have got up with *you know like* signalling definition

ahsem010pg

As well as exemplifying more subtle examples of the features outlined above that would perhaps be more difficult for learners to follow, for example, *notice* and *thing* as examples of language evoking negative evaluation, Extract 8.9 demonstrates a material process used in the AH corpus where the student discusses the action that

was taken by the arts organisation *they've got up a gobo*.

Another common marker of the Solution stage across this corpus is the word *if* (37% of all instances occur in this single stage[39]). Seminar participants use *if* to provide and elicit solutions, although the focus here is on provide. They use *if* to talk about solutions or hypothetical solutions which may or may not work, in the sense *suppose we do x*. The following examples show how *if* is used in the Solution stage. Because of the focus in this thesis on English useful to learners, the traditional categories of conditionals are used in the analysis.

In putting forward suggestions, as shown in Table 8.13, speakers used either what is traditionally known as the first conditional (examples 1-2); or the zero conditional (example 3), or quite often as a suggestion without the second clause, (examples 4-6); in only one instance in this stage, the 'second conditional' being used to put forward a hypothetical solution where the speaker is talking about a third party (example 7).

[39] 80 out of 211 instances of *if* in the *entire* discussion corpus occur in this stage

Table 8.13 putting forward suggestions – Solution: provide

e.g	Transcript
1.	t: *If* you deluge the solution of hydrogen gas you will convert round you take iron-two and react it with electrons you c-, you drive it down to iron-one _pssem003ug
2.	s: *if* we no no *if* we go in a line now it'll be easier to keep in a line _pssem003ug
3.	t: *if* you put in naphthalene naphthalene C-ten-H-eight what happens is _pssem001ug
4.	s: *if* we try and get half to the other side_pssem002ug
5.	s: *if* we sort sort *if* we sort out an order of clapping now _pssem002ug
6.	s: *if* we look at each individual and decide what their liability is based _sssem006ug
7.	s: *if* they were to decide to pull out of the wage market they would need an employee at a higher salary which they would have to do or they would have to pay more to the women _sssem002pg

The above exemplify students making use of hypothetical language to put forward solutions or make suggestions in a collaborative manner. *If* shows an interpersonal meaning as well as an experiential meaning, because as well as suggesting hypothetical solutions, it can be a way of making solutions more tentative. The above also demonstrates the fact that speakers often do not speak in full sentences in what Goh (2009) refers to as a 'textbook like talk'. In fact the Solution moves often only include the first part of a solution, for example *if we push it this way.* This is a way of showing that the suggestions are not set in stone and, as well as demonstrating that the discourse is part of the thinking process, like in Mercer's (1995) notion of exploratory talk, which opens the floor for further alternative solutions to be put forward. The totals of *if* as used in the three main DMGs across the corpus as a whole are shown in Appendix 9, demonstrating its importance for this particular DMG (appearing 3 times more often in Problem Solving than in Debating, and almost twice as many time when compared to Responding).

One final aspect of the Solution stage that is relevant for a functional characterisation of disciplinary seminar discussions is the aspect of multimodality. As

noted in Chapter 3, according to Baldry and Thibault (2006), multimodal texts use a combination and integration of meaning-making resources from more than one semiotic modality to make meanings specific to a text. These semiotic modalities include language, gesture, movement, and visual images (Baldry & Thibault, 2006). Multimodality is important for learners and therefore relevant for teaching and materials design as it is important for students to understand the different modes of making meaning. As noted by Kress (2000), in order to understand a text, it is necessary to understand all the different modes of communication that coexist in that text.

The importance of multimodality in this stage is partly evidenced by the comparatively lower word counts for the seminars which are predominantly made up of Problem Solving, even where the time span is the same (see Table 4.3). Because many of the Problem Solving texts include multimodal stages where it is not necessary to express in words what the interlocutors can see, or because the point that the speaker is trying to make can be made more effectively using visual means, the word count of seminars containing Problem solving DMGs is lower. Although a full multimodal analysis such as those conducted by O'Halloran (2004, 2005), is beyond the scope of this thesis, it is important to highlight the multimodality of a number of these stages in particular disciplines as students are often called upon to participate in these multimodal stages.

For example, there is boardwork done in a Chemistry Seminar, which exhibits the characteristics of the Solution stage in terms of material process types and other features noted up to now.

Extract 8.10 Multimodal Solution: provide

speaker: transcript	notes
tutor: (...)*if* I put quartet there chromium there's the excited state which is a quartet as well and the doublet state is over here and essentially you you you put you use visible light to get up to there and then essentially you get intersystem crossing to take you over to the doublet state which is then the one which the which actually phosphoresces okay	material processes deictic ref indicating location

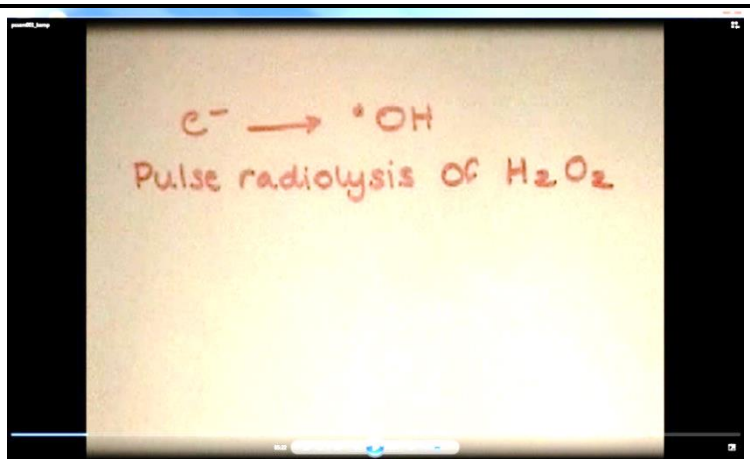


Figure 8.3 Screenshot – accompanying Extract 8.10 multimodal Solution stage

The references to circumstances in the examples above are accompanied by gesturing to boardwork as shown in Figure 8.3, and the spoken text in the accompanying extract needs to be understood in conjunction with the board work shown in the above example. Without this, the dialogue itself would make little sense.

Because of the real-time nature of the unfolding seminar discussion, participants do not use prepared slides as found in Crawford Camiciottoli's (2007) investigations of business studies lectures, or slides in Dubois' (1980) study of biomedical presentations. Instead participants use more immediate means of visually representing what they are discussing through boardwork. The boardwork echoes the real-time nature of the seminar discussions, with false starts and hesitations represented by wiping out or rewriting as more contributions are made. This real-time creation of the visuals, with many of the false starts and hesitations of verbal communication, further reflects Mercer's notion of exploratory talk where the focus is more on the speaker's thinking process than the audience, as opposed to

presentational talk (for example, Mercer, 1995). This brief discussion of the multimodal nature of many of the stages in the Problem Solving DMG, especially in the PS and in Economics, has shown that further research is necessary into this aspect of seminar discussion as successful seminar participation in various disciplines is not based on language alone.

The collaborative nature of the Solution stage has been highlighted to some extent in the micro analyses above. However, it is worth elaborating through one final example of this stage due to the many instances in the data of participants building on previous solutions. The following text from a practical Problem Solving discussion in a Chemistry seminar. Key features of the text noted up to now are signalled in the notes column. The significance of these language features is then discussed.

Extract 8.11 Problem solving: Solution stage – collaboration

turn	Transcript	stage: move	notes
1.	Karl: we *should* all just get in a line and just push it along	Solution: provide	plural pronoun: participants *modality* material processes
2.	su: *unless* you want to make the pipe line first	(alternative) Solution: provide	build up of material processes
3.	Karl: yeah build it over here and just pass it along		turn initial discourse markers
4.	Timothy: yeah and then like put the islands out		
5.	Wesley: yeah get people in position then		*unless as a synonym of if* *to hedge suggestion* imperatives hedged (like and just), less tentative as solution is taken up
6.	Nia: yeah then we can pass the pieces across		
7.	su: yeah		

The collaborative nature of Extract 8.11 is exhibited in a number of ways. The first student tentatively puts forward a solution, realised as a suggestion through using the modal verb *should* and with reference to the participant in the discussion through use of the first person plural *we*. This is followed by an alternative solution in Turn 2, which is collaboratively built up by the other students (Turns 3-7). The turn initial discourse marker *yeah* signals the start of each new turn. As noted by McCarthy and Fung, '[i]n spoken discourse *yeahs* function primarily in interpersonal and structural categories to acknowledge, agree, affirm and mark continuation' (Fung & Carter 2007, p. 431). Here, as well as structuring the discourse as a continuer, *yeah* functions as a positively marked acknowledgement token which adds to the sense of the collaborative nature of the dialogue and the fact that the students are working together. Even in the second turn where the student is suggesting disagreement with the previous suggestion, the suggestion is not discredited altogether, rather the student uses *unless* (as a negative equivalent of *if)* to signal that this is a viable option, but his is just another possible option, and that the pushing is still to be done but after the building in this practical groupwork task. The build-up of the material processes here (*make, build, pass, put*) is indicative of the Solution stage and shows how students co-construct the stage. The suggestions for action start off as tentative, but become less tentative with the acceptance of the other group members and as the suggestions are taken up.

The collaborative nature of this interaction, common across the Problem Solving DMG as a whole, echoes Vygotsky and Cole's (1978) view that people utilise language not only as a psychological tool to try out ideas, but also as a cultural tool for thinking together. This kind of talk involving what seems to be genuine collaboration allowing speakers to try out sometimes undeveloped ideas and solve problems by working together is reminiscent of exploratory talk investigated in school classrooms (Mercer & Hodgkinson, 2008), or dialogic talk as described by Alexander (2008) (this point is picked up again in Chapter 9 where the implications of these findings are discussed).

Next, the results of analysis of the linguistic realisation of the Evaluation stage are shown.

8.3.4 Evaluation stage

As was demonstrated in Section 8.3.2 where the Problem stage was discussed, evaluation is spread through the different stages and is not confined to the Evaluation stage. This is consistent with previous research into evaluative language (for example, Hood & Forey, 2005; Martin & White, 2005). It similarly parallels research into texts which show a problem-solution pattern in academic discourse (Flowerdew, 2008). It is also consistent with findings from research into the problem-solution pattern in spoken discourse in other fields. Koester (2010b, 2011), for example, examining the problem-solution pattern in decision making texts in her corpus of workplace discourse found that evaluation was important *throughout* the problem solving process.

This section presents results of the analysis of the Evaluation stage, or those stages where evaluation is the dominant meaning, and where the stage asks or answers the question: would the action suggested be successful in addressing the issue or was it in fact successful? The analysis in this stage goes beyond whether the evaluation is realised through inscribed or evoked attitude to discuss the *type* of evaluative resources used here, by categorising the attitude according to the categories of *affect, judgement and appreciation* (see Appendix 11 for an overview of these categories).

The key 3-grams for this stage are shown in Figure 8.4, as they prove to be a useful indicator of the type of evaluation that students are doing in this stage, and the language that they use to realise this. These key 3-grams served as a starting point for analysis in this stage.

Feature	N (Text)	N (Ref. Corpus)	Propensity
quite a good	5	3	38.24
that 's probably	4	5	20.65
that was er	3	6	12.91
won't be able	3	7	12.29
that that was	3	9	11.47
you you you	3	9	11.47
to be able	3	11	10.95
want to say	3	11	10.95
be able to	7	37	10.85
that 's quite	3	13	10.59
as long as	3	14	10.45
do you know	3	18	9.56
that that 's	4	24	9.56
yeah i think	5	31	9.25
got to be	3	19	9.06
it 's very	4	28	8.19
way of doing	2	6	7.65
er you 've	2	6	7.65
's a good	4	31	7.40
you get the	2	7	7.37
going to take	2	7	7.37
it i think	2	7	7.37
know you 've	2	7	7.37
that that that	2	8	7.17

Figure 8.4 Key 3-grams: Problem Solving – Evaluation

The first key phrase *quite a good* refers in three cases to an answer, and also to a summary and an idea. These are all ideas about what to do. In these cases the students evaluate ideas, assumptions or suggestions using the APPRAISAL category of appreciation: valuation to express attitude. That is, they evaluate a *phenomenon* according to how worthwhile it is (Martin & White, 2005) (see Appendix 11 for summary of how affect is institutionalised as appreciation or judgement in the APPRAISAL system). An example of this and other examples of students evaluating ideas about action to take or taken are shown in Table 8.14.

Table 8.14 Problem Solving – Evaluation: provide

e.g.	speaker: transcript
1.	t: that's that's that's **quite a good** summary_pssem001ug
2.	t: yeah **not a bad not a bad** assumption_ pssem001ug
3.	s: sorting out the clapping I think the hand on the shoulder and go in a line idea is a **good** plan_ pssem003ug

An investigation of other items in the key phrase list reveals that another main type of evaluation in this stage is the APPRAISAL category of judgement to discuss how successful actions will be or have been rather than how good or bad a plan or suggestion is using the key phrases *to be able*, and *won't be able.*

Examples of evaluation using the APPRAISAL category judgment are shown in context in Figure 8.5.

Pretext	Contained	PostText
know quite a i mean you've done methanol you've got to be	able	to jump from one a molecule that you know about t
is enough similarity to carry the ideas over you've got to be	able	to extemporize a bit in in doing some of these ans
sm5319: let's be perfectly honest you're not going to be	able	to make it if it's like properly wide out
su5322: you should be	able	to do it get it out
sf5337: but we still won't be	able	to get ourselves in order doing that
cause we won't be	able	to see anything
sf5329: he won't be	able	to see that's the only trouble
nd we got out of them in a week what nobodyelse had been	able	to do

Figure 8.5 Responding – Evaluation – judgement

Further examples of judgement and appreciation used in this stage are shown in Table 8.1.5.

Table 8.15 Judgement/appreciation in Evaluation: provide

e.g.	speaker: transcript	file ref
1.	t: er and so it would be **more profitable** okay	ssem003pg
2.	s: he **won't be able to** see **that's the only trouble**	psem002ug
3.	s: yeah that'll work **that'll work**	psem002ug
4.	s: otherwise it **doesn't work**	sssem002pg
5.	s: you should **be able to do it** get it out	ssem002ug
6.	because I realised say this is what the WHO wants you to do **didn't have any effect at all**	sssem002pg
7.	s: so by the time we finish with the programme and we got out of them in a week **what nobody else had been able to do**	sssem002pg
8.	s: **is that going to reach**	psem002ug
9.	s: well but something that **will work** it will take time it will take organising but **it's a way**	sssem002pg
10.	s: but I don't think they've actually realised that they do have that power and that they **can exert that power**	sssem002pg

The examples in Table 8.15 all refer to whether something will or will not work, and use inscribed attitude to evaluate solutions.

Other examples question the solution. In these cases they are not necessarily committing to saying *that's a good* or *bad idea*, but rather implicitly expressing doubt as shown in Table 8.16.

Table 8.16 Subtle evaluation – Evaluation: provide

e.g.	speaker: transcript	file ref
1.	s: that's it yeah but it's very how plausible is it how	sssem002pg
2.	s: yeah what if someone's picked the same number	sssem002pg

What is noticeable in the Evaluation stage of the Problem Solving DMG, is not so much the evaluative meanings that are present, but those that are *not* present in this stage. While a number of resources from the system of attitude are used to express evaluative meanings, these can all be regarded as *institutionalised* meanings of appreciation, or judgement of behaviours according to *societal norms*, rather than an emotional response expressed through affect (for example, *I like it*).

The evaluative resources outlined above are essential for this stage; other means of expressing interpersonal meanings are also key here and these highlight the collaborative nature of much of the DMG. A crucial characteristic of this stage is the discourse markers used. These further highlight the collaborative nature of this particular DMG. A common way that speakers start their evaluations is by using the discourse marker *yeah. Yeah* is the starting point for a total of 100 out of the 313 Evaluation stages.[40] Even where yeah is not a turn-initial discourse marker, it is still prominent in this stage. As a semantically positive discourse marker (Gardner, 2001), the presence of *yeah* helps to add to the collaborative nature of the DMG. Table 8.17 exemplifies uses of *yeah* in the Evaluation stage.

[40] Total instances of *yeah, yes and yep* across the different DMGs are shown in Appendix 9.

Table 8.17 Discourse marker *yeah* in Problem Solving – Evaluation: provide

e.g.	speaker: transcript	file ref
1.	t: **yeah** okay electron transfer	pssem001ug
2.	s: **yeah** that makes sense	pssem002ug
3.	oh I suppose **yeah yeah** true true	pssem002ug
4.	s: **yeah** that'll be alright	pssem002ug
5.	t: **yeah** I think I think the reasoning you've got here is right actually	pssem003ug
6.	s: **yeah** might be a better idea	ssem003pg
7.	s: **yeah** if we can we'll do that but if we can't	pssem003ug
8.	s: that's it **yeah** but it's very how plausible is it	sssem002pg
9.	s: **yeah yeah** what if no-one's no-one's one though	pssem003ug

Table 8.17 shows the use of the *yeah* as a turn-initial discourse marker, or otherwise expressing interpersonal meanings in the Evaluation stage. The examples show where *yeah* is used to express agreement, acknowledgement or confirmation of a solution (examples 1-5), but also where it is used in conjunction with negative evaluation or doubt such (examples 6-9).

The following longer passage pulls together the different themes discussed in this chapter to show how the DMG is manifested linguistically and how the participants work together to build on each other's ideas and to co-construct the different stages and moves. In this extract from a seminar on gender and globalisation, students are talking about the effects of structural adjustment programmes on women and what can be done to tackle the effects on their daily lives.

Extract 8.12 Problem Solving – longer extract

turn	transcript	stage: move	notes/ key language of stages
1.	Tamara: (…) **as** the consequences of structural adjustments *have become institutionalised* in the global development process	Situation: provide	*relational process*
	and in times of crisis coping strategies of women *have now become embedded* in their daily lives	(Solution) Problem: provide	*and* signals start of new stage **inscribed negative evaluation/** evoked negative evaluation
2.	Ginevra: in their daily lives		
3.	Tamara: so they've gone from they've gone from a point of of living the way they lived to to **crisis** of that kind of **crisis** every now and again is what a **permanent crisis** is		
4.	Ginevra: it's embedded yeah		
	but we *need to know* er what can women's groups *develop* I mean what can effectively be done	Solution: elicit	*mental process* and superordinate *material process* to elicit specific material process *what can be done to..?* *What we need to know* is as a reference to the written question prompt and emphasises the pedagogic nature of the discussion.
5.	Tamara: [well what they've actually said] is that what they *need to* do is to er group together as women they *need to* identify as they have to the task they *need to* set up er movements as we would call them here in the west to counteract this [but then the]	Solution: provide	[what they've said – intertextual reference] building up chain of material processes projected using *mental processes*. *need* refers back to situation counteract is also positive lexis evoking solution

6. Ginvera: what are they going to say 7. Shereen: <u>yeah</u> 8. Ginevra: that's right 9. Shereen: because of feminism 10. Ginevra: but even beyond that even in even in even <u>yeah</u> 11. Shereen: <u>yeah</u> 'cause if the if the if the elite go	Evaluation: provide	negative evaluation of previous solution put forward (evoked through question: what are these women's movements going to say?) <u>turn initial discourse marker: yeah</u> shows collaborative nature of discussion. (unclear what the because of feminism comment here refers to)
the **problem** is it's the women who need to be heard the most are the ones least likely to actually be able to get their voices out 12. Ginevra: yeah directly yeah 13.Shereen: yeah but how often does that yeah 14. Tamara: <u>yeah</u>	Problem: provide	new problem provided on strength of negative evaluation of previous solution – inscribed and evoked negative evaluation signalling problem yeah suggesting agreement with new problem
15. Ingrid: talk to the men in the country the government the government	Solution: provide	Behavioural process
16. Ginevra: I don't think I don't think it gets into any individual level a broader economic level 17. Tamara: I think she's right though 18. Ginevra: yeah yeah I mean the men are	Evaluation: provide	mental process (think)

19. Tamara: because because what they do is when they implement these policies or they want policies to be implemented what they do is they speak to the men even if it's not the men who deal with that particular issue	(+solution +new problem)	Reason it doesn't work (material process, behavioural process) Positive turn initial discourse markers
20. Ginevra: yeah yeah		
21. Tamara: and so what women can't what what effectively they do is they and I think they've said it in those one of the ways is to just not do it you know	Solution: provide	Material process not do something
when there have been programmes on or projects	Situation: provide	Existential process Focus on what
and it's not going to benefit them	Problem: provide	Focus on what part of situation needs a solution
it's just not to do them and that's one of them then what they have to take on board is that they need to decide for themselves what they need to do *one of the reasons of coming forward is that they have to* take on board the responsibilities of determining their lives and once they do they make their for them what's essential and then I mean there are a lot of things women can do I mean I know union organisation in the old fashioned sense is dying but it's a way of having force and it's a way of exerting power	Solution: provide	chain of material/ behavioural processes lexical indicators of solving a problem projected using mental process need
and maybe third world people need to reunionise or unionise themselves in order to perform some force out to get more wages because if they were to decide to pull out of the wage market they would need an employee at a higher salary which they would have to do or they would have to pay more to the women but when women		material process hypothetical if

	are fragmented and continue to be paid the pittance then		
22.	Ginevra: that’s it yeah but it's **very how plausible is it how**	Evaluation: elicit	Evaluative language
23.	Tamara: it takes time like most things but **it does actually work**	Evaluation: provide	Evaluative language

sssem002ug

In Extract 8.12, even though the problem affects women in the Third World, and the third person is used rather than first person plural participants as in previous examples, there is still a strong sense that the students are collectively working together to solve the problem. Linguistically, there are a number of devices which contribute to the sense that the speakers have claimed this as their *own* problem to find a solution to. The turn initial discourse marker *yeah* punctuates this and many other extracts from the Problem Solving DMG and gives it a sense of ‘working together’ as do the fact that the students echo previous turns grammatically (through for example building up of material process types) to co-constructing the stages. This is a clear example of how the students work together to build up their ideas, not always agreeing, but suggesting alternatives.

Table 8.19 provides a summary of the key features in the Problem Solving DMG.

Table 8.18 Problem Solving DMG: key features

Key language features (examples from corpus)
Situation ***Details about the situation***
Relational processes ((*there*) *is*/*are*, *we've*/*you've got*) to explain what interactants 'have'. Language denoting person, time and place to give details about the situation. Use of often collective Participants (*you ,we*) to alk about ownership of the problem.
Problem ***The part of the situation that requires a solution***
Lexical signals (inscribed or evoking) for negative part of situation: (*problem*, *suffer*, *lack*, *trap*, *difficult*, *crisis*).
Solution ***Possible action to be taken to solve problem***
Subordinate and discipline-specific material/ behavioural processes (*convert*, *move*, *split*, *go*, *add*), elicited and projected using mental processes common across disciplines (*want*, *need*); lexis carrying positive meaning overcoming problem (*empower*, *try*).
(Evaluation) ***Opinion about the success of the solution suggested/ attempted***
Evaluation (inscribed/ evoked) , evaluative language (positive or negative) and positive turn initial discourse makers (e.g. *yeah*). APPRAISAL categories judgement and appreciation used to express whether a solution will or has worked.

8.4 Chapter conclusion

This chapter has shown that Problem Solving is an important DMG in both the SS and the PS subcorpora. It has shown that there are characteristics that the DMG shares across the disciplines, such as the process types used in the Solution stages to project and provide answers, but that there are variations in the lexical expression of process according the whether they are used metaphorically or not. In the SS seminars the processes were often used metaphorically as opposed to in the PS seminars.

This section highlighted the linguistic resources that contribute to making this a collaborative DMG as students work together to think through problems and put forward solutions.

The next chapter discusses the results and analysis presented in Chapters 5 to 8.

Chapter 9
Discussion

The previous four chapters presented the results from the investigations in terms of the DMGs identified, their distribution across the corpus, their linguistic manifestation and overall character. This chapter draws together key themes from the results and analysis chapters and discusses how these results as a whole answer the main research question: What are the characteristics of seminar discussions across the disciplines? Six key findings giving us insights into the general character of seminar discussion are discussed, adding to our knowledge of seminar discussion and disciplinary discourses.

The first important result regarding the macro shape of seminar discussion is that each disciplinary subcorpus is characterised predominantly by two DMGs, indicating that disciplinary purpose creates a different shape for seminar discussions.

Second, results demonstrate that ‘debating’ is not a one size fits all model for seminar discussion and that investigating other social purposes can highlight useful patterns for teaching and materials design. While the oppositional Debating DMG was present in two of the discipline areas, the DMGs are predominantly non-oppositional and the discussion as a whole is collaborative rather than combative in nature.

A third finding was the recognition that at the core of the main DMG in each discipline was a ‘disciplinary’ purpose, where students had most opportunity to display their disciplinary knowledge. Fourth, this disciplinary knowledge was led by tutors, who often elicit the stages of a DMG. This highlights the importance of tutors in guiding discussion, a crucial finding for the pedagogical implications of this thesis.

The fifth key result was that there were similarities in DMGs across disciplines in terms of their characteristics and lexicogrammar which would be useful for teaching and materials design, but also distinctions between disciplines.

Finally, the results demonstrate that in relation to spoken and written discourse, the multiple demands of seminar discussion lead to the different written and spoken-like aspects of the talk on the semantic and lexicogrammatical planes.

These outcomes of the study are discussed in more detail in sections 9.1 – 9.6 below.

9.1 The shape of disciplinary discussion

In answering the main research question about the functional characteristics of seminar discussions across the disciplines, research question three focussed on the distribution of DMGs across the corpus. The first significant finding here was that each of the three main DMGs was important in two of the disciplines and not at all (or only had a very minor appearance) in the third discipline.

The study points to the following as important DMGs in each of the discipline areas in the corpus (the DMGs in parentheses have a minimal appearance of under 5% of the discussion):

- Arts and Humanities: Responding, Debating, (Problem Solving)
- Social Sciences: Debating, Problem Solving (Responding)
- Physical Sciences: Problem Solving, Responding

Specifically, Debating was significant in SS and AH but not present at all in the PS subcorpus. Problem Solving was the most important DMG in the PS subcorpus and was also apparent in the SS subcorpus, although it only appeared in one seminar in the AH subcorpus. Responding was most important in the AH subcorpus, and also significant in the PS subcorpus, but it only occurred in one of the SS seminars. Where a third DMG did occur in a discipline, it was possibly unrepresentative. For example, in the AH subcorpus, the only seminar in which Problem Solving occurred was in seminar related to professional practice. Further research is needed to see if the Problem Solving DMG only appears in seminars related to professional practice, and how common it is in Arts and Humanities seminars.

That each of the three disciplinary sub corpora would be so strongly characterised according to two particular DMGs was unanticipated. Of these results, it was most surprising that Responding was so apparent in the PS subcorpus: after Problem Solving, Responding accounted for 29% of the discussion data in the PS subcorpus. These three seminars were specifically related to group work problem solving tasks. More research is needed to find out whether Responding is a common DMG in PS generally.

The strong picture that emerges for each of the disciplines from the combination of two of the three DMGs as noted above suggests that the social purposes that are important in a particular discipline result in the disciplinary ways of speaking on the macro level. That is, the social purposes can be said to be integral to the disciplines. In the Arts and Humanities there is an emphasis on responding to artefacts through personal responses as well as through applying more abstract disciplinary interpretations. The emphasis is less on deciding whether an answer is right or wrong and more on discussing different alternative, although equally valid, responses and interpretations. There is also an emphasis on debate, for example, in History or American Studies, indicating that as well as discipline area, there are also differences according to subdiscipline. The Social Science subcorpus is shaped mainly by Debating – in Politics, Economics, Gender Studies – but also by Problem Solving as students put forward ideas about how to solve real-world problems using disciplinary knowledge, or talk about how problems have been solved. The PS subcorpus is strongly shaped by Problem Solving, a DMG that we may imagine is central to the disciplines in this subcorpus, but also by Responding. It is these key functions that tell us what a discipline is ‘about’, and that also help to clearly shape the discourse. The fact that there are similarities across disciplines in terms of the DMGs, suggests that it would be not inconceivable to have general EAP coursebooks for teaching seminar skills but that these need to take into account different DMGS.

The characterisation of each discipline areas by two DMGs parallels previous research that classifies the *writing* that students are expected to produce at university in terms of its function and form, as discussed in Chapter 3. This research indicated that disciplinary areas are strongly characterised by particular written genres

produced by students or expected by staff (for example, Gardner & Nesi, 2013). Findings from the present study suggest that in the same way as EAP teaching does not group together all forms of written assignment and presume it to have the same function and form, so it should not group together all seminar discussion and presume it has the same function and form.

It is not suggested that the DMGs identified in the corpus investigated for this study are the only DMGs in UK HE seminar discussions, but it is hoped that the investigation of this small corpus offers an alternative way of conceiving of discussion, and that other DMGs might be investigated in the future. By starting from the presumption that the social purpose of seminar discussion is debate, the possibility of discovering other DMGs is closed. Rather than assuming that the motivations for seminar talk are for students to be able to put forward, argue and defend an opinion, it is worth considering what the other aims of discussion might be. Up to now, researchers of EAP have spent much time and effort looking for the central goals in written discourse with the promise of finding useful patterns of language for teaching. As noted in Chapter 3, this has been a hugely worthwhile exercise (for example, Swales, 1990; Martin & Rose, 2008; Nesi & Gardner, 2012), but notions of a social purpose of discussion beyond pedagogy have been ignored in spoken academic discourse generally. That seminar discussion is a structured experience beyond the traditional notions of argument (see, for example, Coffin at al., 2012) or of IRF structures (Basturkmen, 2000) is clear from the research conducted here which shows the presence of a number of DMGs in the corpus. Social purpose is integral to the structure of the discourse and needs to be included in a description of spoken academic discussion.

9.2 In defence of non-oppositional discussion

This section turns to the fact that of the three main DMGs in the corpus, only one, the Debating DMG, was oppositional in nature. The oppositional nature of the Debating DMG was demonstrated by the opposing viewpoints as elicited by the tutor prompts or highlighted in an Issue stage (see section 6.3.1). The other two main DMGs in the corpus had more collective aims, that is, the participants were working on a convergent rather than a divergent task (Tan, 2003).

Specifically, 29% of the discussion is made up of Debating while 50% is made up of the two non-debating DMGs, those that explore alternative interpretations or different solutions to problems, and that have a common rather than opposing goal. In fact, the subcorpora can be divided into 'debating' and 'non-debating' discipline areas. While Debating was important in the SS subcorpus, and to a lesser extent in the AH subcorpus, its absence from the PS subcorpus suggests that students preparing for PS courses may find their time better spent preparing for other forms of discussion.

If the evidence for the need in EAP teaching to move away from seminar discussion as synonymous with debate towards more exploratory forms of dialogue is compelling on a macro level, the evidence on a micro level is perhaps even more so. Results from the micro investigations of the data indicate that traditional teaching models characterising seminar discussion as debate or battle of ideas and encouraging the use of formulaic phases which suggest preformed or 'static' ideas (for example, *In my opinion*, or *I am afraid I disagree*) do not reflect actual seminar discussion across the disciplines. The non-debating DMGs, when examined on the micro level, at their most inclusive and most productive, seem to encourage contributions about what students are not sure of or think may be the case. These findings support previous research which has found tendencies to consensus in academic discussion (for example, Mauranen, 2002).

This consensus orientation is also clear from looking at the seminar discussion data in its entirety. By way of example, the third most common 3-gram in the entire corpus is *I don't know* (see Appendix 12). This echoes Hyland's cursory investigations of the MICASE seminar data. This phrase, according to Hyland (2009),

> is a collocation which can express the speaker's unfamiliarity or uncertainty with a topic, but which more often helps oil the interactional wheels. This is typically achieved either by interjecting a personal note into an academic comment, or by hedging a statement to tone down its impact. (p. 108)

Again, this highlights the importance of the interpersonal in seminar discussions and the fact that a mastery of these aspects of language is required as well as 'disciplinary' language.

The fact that the function of the majority of the discussion is convergent rather than divergent in nature is reflected in the linguistic manifestation of the two non-debating DMGs. Problem Solving for example, exhibited a number of discourse features reflecting students working together, such as the high use of turn-initial discourse marker *yeah*, and hypothetical solutions co-constructed in the Solution stage. Similarly, the Responding DMG showed how students worked together to put forward interpretations and evaluations of a film, not necessarily needing to 'disprove' another student's interpretation before they could add to it. This was in sharp contrast to some of the most eristic arguments in the oppositional DMG, where there were instances of students making off-topic dismissals or arguing for argument's sake, as commented on by a student at one point: for example, *I mean look we're getting on a big personal level let's not do that* (sssem005pg). So, while on the micro level there were features of certain sections of the Debating DMG that were reminiscent of confrontational talk that has been investigated previously (for example instances of metapragmatic language and explicit performatives used in disputational talk as noted by Koester, 2010b), more of the talk across the corpus as a whole was non-confrontational.

The collaborative nature of much of the data in this study is reminiscent of research into classroom talk from a sociocultural perspective. The co-construction of or exploration of ideas evident in the corpus echoes previous work about the nature of exploratory language found in classroom discourse: 'Exploratory talk is hesitant and incomplete because it enables the speaker to try out ideas, to hear how they sound, to see what others make of them, to arrange information and ideas into different patterns' (Mercer & Hodgkinson, 2008, p. 5). It is also reminiscent of Alexander's notion of dialogic teaching where talk is:

> **collective:** pupils and teachers address learning tasks together, whether as a group or as a class, rather than in isolation; **reciprocal:** pupils and teachers listen to each other, share ideas and consider **alternative viewpoints;** cumulative: pupils and teachers **build on their own and each others' ideas** and chain them into coherent lines of thinking and enquiry; and **supportive:** pupils articulate their ideas freely, without fear of embarrassment over 'wrong' answers, and they **help each other to reach common understandings**
>
> (Alexander, 2003, pp. 35-36; emphases added).

The fact that so much of the discussion was non-oppositional but still had a clearly identifiable purpose and shape demonstrates that seminar discussion that is not combative or even oppositional is not in any way 'inferior', but is simply applying knowledge according to other disciplinary social purposes than defending or putting forward an opinion. This recognition of the value of non-oppositional talk is in contrast to traditional views of or some previous research into academic discussion. 'Ideal' academic discussion has often been viewed as debate, using metaphors of battle (as noted by Tannen, 1998).

One group of studies investigating academic discussion from this perspective, that is, presuming the aim is to put forward opposing points of view, have often found discussion wanting. Looking for disagreement they have more often found consensus (Coffin et al., 2012), this lack of argument has been seen as a negative aspect of discussion. O'Keeffe and Walsh lament a lack of what they term argumentative talk in their discussion data of small group university teaching:

> Most tutors would be delighted if students would engage with their discipline, discuss, debate and argue about new concepts, challenge existing principles and offer new ideas of their own. Unfortunately, all too often, this does not occur and students resort to being passive recipients, apparently disinterested and only motivated by information which will help them pass the course or success in an assignment. (O'Keeffe & Walsh, 2010, p. 116)

O'Keeffe and Walsh suggest that a key way to help students become better interactants is to encourage them to take a stance, while the results presented in the previous three chapters of this thesis suggest that 'taking a stance' is not necessarily the way to become a more successful interactant in academic discussion.

Coffin and O'Halloran similarly note the important role of conflict, stating that it is 'an important catalyst for cognitive change in the sense of modifying one's beliefs and positions' (Coffin & O'Halloran, 2009, p. 4). They state that although counterargument is rare in their data, it plays a significant role in sustaining and developing argumentation. Coffin et al., looking at online conferencing data, also note that it is 'of some concern that recent research studies have consistently found that students across a number of educational and disciplinary contexts avoid confrontation, preferring instead to support rather than challenge each other's points of view'. However, although the findings from this study support the fact that students

are more likely to agree with another student's claim than counter it (as shown in studies by Coffin et al. (2012), Hewings et al. (2007), and Jeong and Joung (2007)), agreement did not necessarily put an end to discussion. Students can accept that an idea is valid and may build on it, or suggest equally valid alternatives, building on a previous student's move, if it is recognised that the goal is not always to 'counter', but that there are other aims to the discussion.

Recognising these other aims of discussion as exemplified in the Responding and Problem Solving DMGs can help us to view seminar discussion along the lines of a metaphor 'of the town square with its associations of barter, conversation and redirection' rather than the more familiar metaphors of war and battle (Andrews & Mitchell, 2000, p. 267). In contrast to the previous researchers noted above who have viewed the lack of counterargument in discussion as an area for concern, a second set of researchers have found that the consensus-orientation of spoken academic discourse is not necessarily a negative aspect of the discussion (for example, Alexander, 2003; Mauranen, 2002). The high proportion of the corpus made up of collaborative DMGs add to these findings by showing that there can indeed be a goal to being consensus-oriented. These goals are related to the disciplinary objectives as well as to interpersonal motivations that lead to the cooperative and consensual nature of casual conversation or other face-to face interactions (Mauranen, 2002; McCarthy & Handford, 2004; Eggins & Slade, 2005).

A one-size, debate-fits-all approach when it comes to teaching seminar skills in EAP is clearly not what is required, or at least what is needed is a course that takes account of different types of seminar discussion and the debating and non-debating disciplines. However, even where disciplines favour Debating, there is a fine line between the useful exchange of opinions and eristic argument, and tutors need to steer the talk to constructive debating rather than arguing for argument's sake, while also recognising that this form of discussion may be something that not all students are comfortable with or accustomed to. This also has implications for subject teachers in the 'debating' disciplines particularly when dealing with students from what Cortazzi and Jin (1996) classify as a Confucian style educational background.

9.3 The disciplinary ‘core’ as the application of disciplinary knowledge

A further key result emerging from the micro investigations of the DMGs is the differing frequencies of each stage, and specifically, how the most frequent stages constitute the ‘disciplinary core’ of the discussion where the students are able to demonstrate disciplinary knowledge. The most frequent stages in each DMG were Debating: Evidence and Argument, Problem Solving: Solution, Responding: Interpretation. It was in these ‘core’ stages that the main disciplinary business at hand was most clear and these most frequent stages in each DMG were investigated further because of their relevance to EAP teaching and materials design.

In these core stages students were applying rather than merely recalling disciplinary knowledge, and this application of knowledge is a common feature of the three main DMGs. 77% of discussion (the remaining 13% was other, Organising and Describing) included an application of disciplinary knowledge, rather than explaining verbatim content that would previously have been explained in a lecture or a textbook. In terms of existing seminar descriptions, guidelines and tutor expectations (for example, Lammers & Murphy, 2002; Exley & Denick, 2004) this fulfils the expectations of what a seminar should be and is an encouraging outcome of the investigations.

While, as noted in Chapter 2, this is a linguistic study and not a cognitive exploration of learning, the results suggest that what is taking place in most of the seminar discussion is an application of disciplinary knowledge seemingly meeting what Jaques and Salmon (2007) refer to as the ‘intellectual aims’ of seminars. In terms of the implications of this for EAP teaching, students clearly need to be prepared for taking part in discussions which involve the formulation and application of disciplinary knowledge in new ways.

9.4 The importance of guidance to DMGs

Another important finding relating to the internal shape of the DMGs was the fact that the tutors’ input was imperative in shaping the disciplinary discourse through their eliciting moves and by the type of questions they asked to elicit individual stages.

This shows that the shape of the discourse can be predicted to some extent by the questions or tasks that elicit it.

Table 9.1 shows some of the questions or prompts used to elicit each DMG.

Table 9.1 DMG elicits by tutor

Problem Solving	Debating	Responding
how could you make the following conversions _pssem001ug	ok we talked a lot about er structural and economic aspects of globalisation but what about the cultural argument how far does cultural globalisation spread do you think we're all becoming one culture_sssem02ug	and yeah I yeah does anyone else feel like that about about it_ahsem006ug
so how what what do you want to do to the ligand to make it bind to a to to a surface_pssem001ug	do you think it's reducing competition or or not_ssem003ug	do you find it effective you're nodding_ahsem007ug
ah but we need to know er what can women's groups develop I mean what can effectively be done_sssem02ug can you give some examples of how the environment can economists are trying to solve these costs_ssem005ug	is there any other there are five people here from from er Asia developing Asia does anyone else want to participate in this debate give your opinion I mean you're all from countries who are trying to basically trying to get rich right catch up I mean do you think you should all be allowed to have two cars why not a lot of people in Europe have got two cars why can't you have two cars_ssem005pg	so in terms of your own feelings about it you know er h-, did you enjoy it er what was what were your own personal feelings about it_pssem002ug
Features of questions		
How questions	closed questions; polar opposites highlighted	Open-ended questions What did you think/ feel? What does it mean?

The questions in Table 9.1 can be briefly characterised by the DMG metalanguage in each and the question types. There are open questions for Problem Solving and Responding, which suggests a number of possible alternatives or what Tan (2003) would call 'divergent tasks'. They are: for Problem Solving, how, or what can be done questions; for Responding there also open questions but this time asking *what do you think?*, or *what does it mean?* The questions eliciting Debating are often closed 'oppositional' questions. Previous research has shown that closed questions lead to argumentative discourse and often disputational talk (Mercer, 1995) and this is the case here as well. This is evidenced by the fact that the only 'disputational' talk occurs in the Debating DMG (see Chapter 6 for a discussion of this). However, as well as being a result of the question type, there do seem to be disciplinary preferences for question types leading to particular DMGs.

One clear example of tutor guidance in shaping the DMGs is where the tutor changes the direction of the law seminar from Debating to Problem Solving as shown in Extract 9.1.

Extract 9.1 Tutor guidance of DMGs

speaker: transcript
t: okay le-, let's cut through this we're having **great arguments** for the defence and the prosecution here and these are exactly the **sorts of arguments** that we'd hear in court in this case but of course when **we're doing the problem** our job is to play the role of the judge not the jury I'm always warning people against doing what they naturally want to do which is to decide the open questions of fact which y-, you started by doing didn't you by saying it was not murder and siding with the prosecution in saying that it could be the important question is that there is a question there to be decided by the jury and we play the role of judge **in in in dealing with this problem** and **our job is to set out what the issues are** what the result will be if the jury decide either way so if it was charged as murder what would be the issue for the jury

_sseem006ug

Extract 9.1 shows how the tutor clearly steers the direction of the discussion. In this case the tutor uses metalanguage referring to the DMGs (highlighted in bold above). The discussion which follows this extract can be clearly categorised according to the stages of the Problem Solving DMG. This and other similar examples in the corpus

demonstrates that when tutors frame discussion tasks in particular ways, particular types of talk are more likely to ensue.

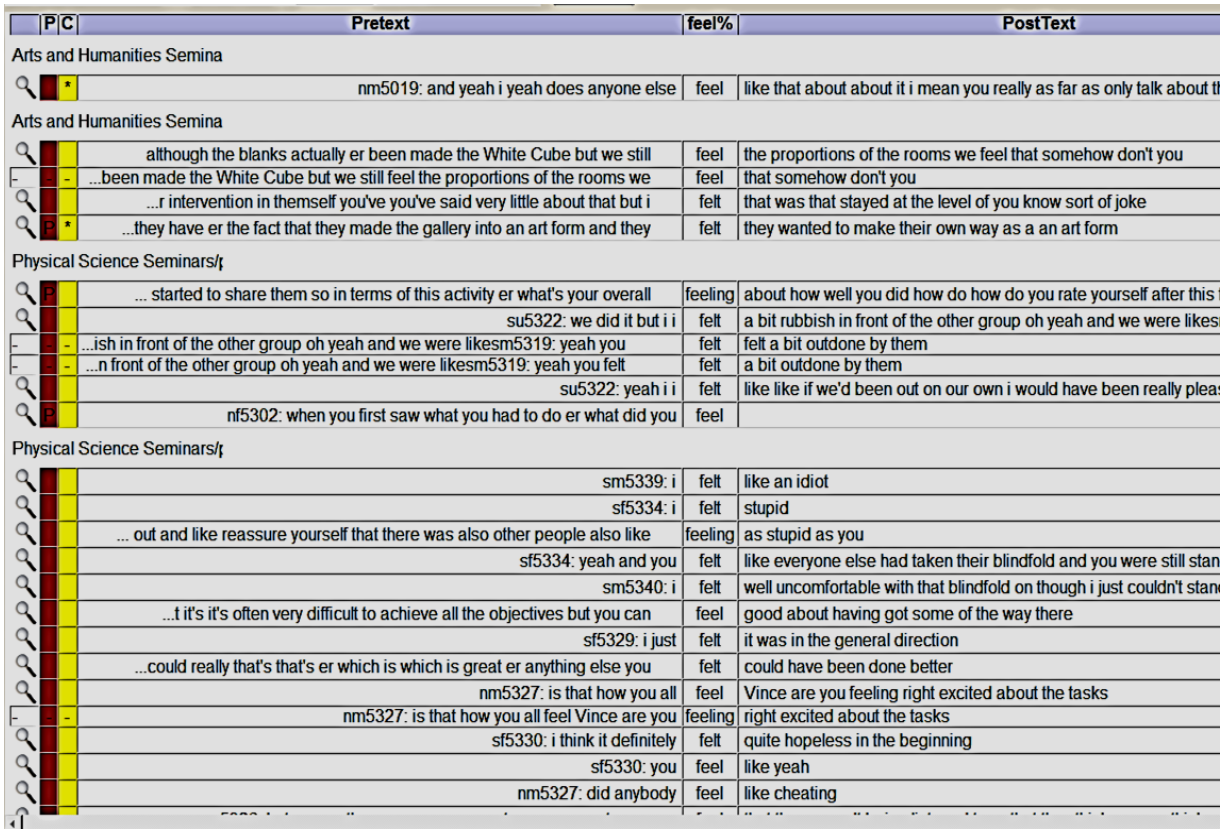
The findings relating to tutor guidance of DMGs show numerous similarities to previous research. Firstly, previous research both in Education and Linguistics has often found that teachers control seminar discussions (for example, Benwell & Stokoe, 2002; Fiksdal, 2014), particularly thorough the types of questions they ask. The findings are also reminiscent of Vygotsky's notion of scaffolding (developed from Bruner, 1978), showing how tutors are able to guide the discussion. However this thesis has taken the notion of tutor guidance of discussion a step further by showing that the particular types of question and resulting discussion, and the situation, for example, of a 'closed' question leading to disputational talk, is perhaps more a matter of disciplinary practice than individual teaching styles or ineffectiveness in leading seminars.

9.5 Differences and similarities across the disciplines

Research question five asked what the linguistic features of the DMGs stages were. First, the results show that each DMG has key features which emerge from the results of the micro investigations. These characteristics of DMGs are common across disciplines and are thus tied to DMG rather than discipline. Second, results showed that although the stages are generally similar across disciplines, there are a small number of disciplinary differences which are nevertheless important. Third, the results show that there are key language features on the micro level particular to spoken discourse, differentiating the DMGs from parallel written genres.

Each DMG has a defining character which can be known as a 'functional fingerprint' that emerges from the micro investigations. Specifically these were: the oppositional nature of Debating; the collaborative nature of Problem Solving; and the move from common sense to uncommonsense meanings in Responding. That there would be linguistic differences between the DMGs was considered. However, that the differences would characterise the discourse and shape it so strongly according to these themes, even across disciplines, was unanticipated.

While the functional fingerprint of each DMG was discussed in detail in Chapters 6 to 8, the notion is exemplified neatly by looking at some corpus investigations comparing isolated features across the DMGs. For example, in the Responding DMG in both the PS and the AH subcorpora, the focus in the Evaluation stage is on feelings and thoughts, moving to abstractions in the Interpretation stage. This commonalty in the DMGs of these very different subjects can be seen in the concordance for *feel* below, showing both elicitations and responses from the Arts and Humanities subcorpora.



P	C	Pretext	feel%	PostText
Arts and Humanities Semina				
	*	nm5019: and yeah i yeah does anyone else	feel	like that about about it i mean you really as far as only talk about t
Arts and Humanities Semina				
		although the blanks actually er been made the White Cube but we still	feel	the proportions of the rooms we feel that somehow don't you
-	-	...been made the White Cube but we still feel the proportions of the rooms we	feel	that somehow don't you
		...r intervention in themself you've you've said very little about that but i	felt	that was that stayed at the level of you know sort of joke
P	*	...they have er the fact that they made the gallery into an art form and they	felt	they wanted to make their own way as a an art form
Physical Science Seminars/				
P		... started to share them so in terms of this activity er what's your overall	feeling	about how well you did how do how do you rate yourself after this
		su5322: we did it but i i	felt	a bit rubbish in front of the other group oh yeah and we were likes
-	-	...ish in front of the other group oh yeah and we were likesm5319: yeah you	felt	felt a bit outdone by them
-	-	...n front of the other group oh yeah and we were likesm5319: yeah you felt	felt	a bit outdone by them
		su5322: yeah i i	felt	like like if we'd been out on our own i would have been really plea
P		nf5302: when you first saw what you had to do er what did you	feel	
Physical Science Seminars/				
		sm5339: i	felt	like an idiot
		sf5334: i	felt	stupid
		... out and like reassure yourself that there was also other people also like	feeling	as stupid as you
		sf5334: yeah and you	felt	like everyone else had taken their blindfold and you were still stan
		sm5340: i	felt	well uncomfortable with that blindfold on though i just couldn't stan
		...t it's it's often very difficult to achieve all the objectives but you can	feel	good about having got some of the way there
		sf5329: i just	felt	it was in the general direction
		...could really that's that's er which is which is great er anything else you	felt	could have been done better
		nm5327: is that how you all	feel	Vince are you feeling right excited about the tasks
-	-	nm5327: is that how you all feel Vince are you	feeling	right excited about the tasks
		sf5330: i think it definitely	felt	quite hopeless in the beginning
		sf5330: you	feel	like yeah
		nm5327: did anybody	feel	like cheating

Figure 9.1 *feel* across the DMGs

The above examples demonstrate that in both the disciplines in this DMG the participants talk about their thoughts and feelings, irrespective of field.

Another example of how micro features are indicative of the DMGs is the fact that social purposes of the DMGs are closely tied to common process types that realise them. These process types were discussed in detail in each of the previous three chapters but to highlight the difference, it is worth comparing the process types in each DMG across disciplines. Responding and Debating tend to be tied to mental

and relational processes, while what Matthiessen terms the 'experiential signature' (Matthiessen, 1995, p. 360) of Problem Solving is material process types, but also relational process types where in the Situation stage students talk about what they *have got*. The top verbs in each of the DMGs are shown in the following table. Of course, process type is not the same as verb, rather process types are *realised* by patterns of verbs, but the investigations of these verbs discussed in the previous three chapters seem to confirm what a glance at the table below tells us: Debating and Responding are *thinking* DMGs and Problem Solving is a *doing* DMG. This relates to previous findings about different process types in different fields (Nesi & Holmes, 2009).

Table 9.2 Verbs across DMGs

Problem Solving	Responding	Debating
be (10.7%)	be (12.84%)	be (14.31%)
do (4.52%)	think (4.95%)	know (4.21%)
get (4.37%)	do (4.77%)	have (4.13%)
go (4.35%)	have (3.32%)	think (3.78%)
have (3.83%)	like (3.30)	do (3.32%)
can (3.06%)	know (3.13%)	like (2.25%)

Table 9.2 is a simple exemplification of how particular language features are more or less important, depending on which DMG is being considered, showing how language on a micro level is heavily tied to the DMG and the social purpose of the discussion the students are involved in (particular language features of each DMG were given in Chapters 6 to 8). Obviously discussion tasks and field are determined by discipline, however, a Problem Solving text in AH, for example, has more similarities on the grammatical level with a Problem Solving text in PS than with a Responding text in AH.

Previous literature has also found that across different fields there can be grammatical similarities in texts according to function. For example, as was noted in Chapter 3, Hoey (1983) has identified the common characteristics of problem-solution texts in different contexts, and researchers have consistently found common

structures of narratives after Labov (1972), in a wide variety of contexts from conversation (Eggins & Slade, 2005) to lectures (Alsop et al., 2013). It seems that the social purpose leaves its fingerprint on the micro as well as the macro level.

The fact that the DMGs share characteristics across disciplines has significant implications for EAP teaching and materials design. It means that materials need to take into consideration the different shape and focus of the DMGs that students need to participate in. On a grammatical level these are not defined as much by disciplinary differences as by differences in DMG. The discourse is shaped by the social purpose of discussions, and there are similar social purposes across disciplines. The fact that the DMGs share characteristics across the disciplines means that the use of EAP textbooks rather than ESAP (English for Specific Academic Purposes) textbooks is not precluded, but that EAP textbooks need to teach a number of different features that will allow students to practice using the language they will need to participate in the seminar discussions in their chosen academic discourse community.

On the other hand, differences highlighted by the micro investigations show features of the DMG which depend on discipline area. For example, in the Debating DMG, there were a number of personal narratives present in the Evidence stage, but this was only the case in the Social Science seminars, or in the Arts and Humanities seminars relating to professional practice. The Evidence stage then is more tied to discipline in the *type* of evidence which students can draw on to back up their arguments. Another example was the different verbs used to express solution in the PS and SS subcorpora. In the PS subcorpus material processes were projected by mental processes, for example, *bind* or *tether*, but in the SS subcorpus the processes were metaphorical material process types, such as *reunionuse* or *develop*. Such differences in the manifestation of the stages of the DMG is something that EAP tutors need to be aware of this so they can draw students' attention to them in multidisciplinary classes. It is also something that can be incorporated into EAP materials design.

9.6 Spoken vs. written academic discourse

A key aim of this thesis has been to provide a description of seminar discussions that would allow materials designers to move away from scripted dialogue that often has more in common with written than with spoken language. This section discusses two of the findings that make a contribution here. Firstly, these findings relate to the similarities and differences of the DMGs in terms of their functional stages, that is on the semantic level, from 'parallel' written texts; and secondly, they support the argument for a separate lexicogrammar of EAP that recognises the grammatical and discourse features as well as the different and multiple aims of spoken academic English.

First, on the level of discourse semantics, it was noted that although some of the DMGs can be said to parallel written genres investigated previously, there are stages that are particular to the spoken mode of the DMG. For example, the Interpretation and Description stages in the Responding DMG are similar to those functions found by researchers investigating written genres such as those of film studies (Donohue, 2012). However, the additional Evaluation stage that calls for a personal response is something that would perhaps not be encouraged in written discourse. The implication of this for EAP teaching and materials design is that it should not just be assumed that we can transpose written genres to the spoken, but we need to recognise the different purposes of seemingly 'parallel' genres

Second, there are the often informal or conversation linguistic features within the stages (that is on the level of lexicogrammar). It has been shown that students tend to follow the institutional demands of the genre in the shape of the seminar discussion and the predictable staging, that is, on the level of discourse semantics. The 'conversational' nature of academic talk and the ways that students manage to integrate the interpersonal into their texts are accomplished through the use of what could be perceived as often informal grammar or lexis, and often integrating creative or colourful or playful language into a serious academic point. While Benwell and Stokoe (Benwell & Stokoe, 2002) noted the 'dumbing' down of the academic culture, and students being disengaged, the data here shows students are in fact adept at managing the multiple demands of 'impressing' the tutors who will evaluate them while at the same time not sounding too 'textbook like' (Goh, 2009).

The following extracts show how students manage to meet these dual aims. Below, a student signals the main point of his argument about the success of the Cuban revolution.

Extract 9.2 *that's the biggie* – Argument: provide

s: *church that's the biggie the lack of a church_* ahsem003ug

While seemingly using what might be considered informal language *the biggie* the student manages to mark a serious point in the discussion, signalling that this is the main argument that he then goes on to discuss in detail. This particular student's contributions in the discussion are well received by the tutor and students in general; in fact he seems to be what Ramsden (2003) has referred to as the star speaker.

A similarly confident student makes the following evaluation of a film in a different seminar.

Extract 9.3 *crappy psychology* – Evaluation: provide

s: *I think it some bits of it are a bit kind of crappy psychology_* ahsem006ug

The above extract, from a Responding Evaluation stage, shows how on the semantic level the student remains within the 'confines' of the DMG (evaluating a film), but on the lexicogrammatical level displays elements of creativity and language play, using the –y suffix to an adjective (cf. Carter, 2004). By exercising creativity within the semantic domain of the Evaluation stage, the student is simultaneously able to meet institutional and interpersonal demands.

By meeting these dual demands of discussion, students are able not only to gain authority in seminars by mastering the discourses respected by their peers and tutors (Fiksdal, 2014), but are also able to combine these interpersonal demands with the intellectual and institutional demands of the seminar.

However, it is not just students whose language displays multiple social purposes, institutional and 'private intentions' through use of informal or creative language. The tutors are also it seems, adept at 'getting down with the kids'. One

tutor, during an elicit for a Problem Solving text in the Physical Sciences, uses an informal metaphor meaning to try something: *Have a crack at it* (pssem001ug). A number of similar elicits were noted in Chapters 6 to 8.

With reference to government funding of arts organisations another tutor uses a particularly opaque metaphor.

Extract 9.4 *the cake is getting smaller* – Argument: elicit

> t: *we have to ask ourselves is whether the icing is getting bigger or the cake is getting smaller* _ ahsem010pg

The examples above all demonstrate creativity *within* the stages, that is, on the lexicogrammatical level, and not on the semantic plane. Seminar participants, students and tutors alike are adept in using this strategy to satisfy the dual institutional/ interpersonal demands of seminar discussion. Highlighting such uses of language to fulfil dual demands would be a worthwhile addition to seminar skills materials.

As well as instances of language creativity, grammatical features of 'informal' spoken discourse were also noted in the results chapters. Discourse markers are an example of these grammatical features. For instance, the discourse marker used to introduce examples *you know* was commonly used in the Evidence stage, whereas in written language, or even in EAP teaching materials, we might expect *for example*, or *such as*. Another example in the Problem Solving DMG was the use of incomplete 'conditional' phrases to put forward suggestions (for example, *unless you want to…*). This supports the idea as noted by, for example, McCarthy and Carter (2002), that spoken language is different from written language and should be recognised as such by a grammar. McCarthy and Carter in fact go as far as advocating a separate spoken grammar stating that 'spoken grammars have uniquely special qualities that distinguish them from written ones, wherever we look in our corpus, at whatever level of grammatical category' (McCarthy & Carter, 2002, p. 1). Thus, expecting students to use the grammar and vocabulary we teach them for writing academic prose in a spoken situation can make them seem 'bookish and pedantic' (Channell, 1994). Students at least need to be given the choice.

Uses of language play, vague language and metaphor are, it seems, a common and not insignificant feature of academic seminar discussion. Such features of spoken academic discourse in other settings have also been recognised by previous researchers. As noted by Swales in his investigation of a dissertation defence, ‘it would seem that one can go all the way up the academic ladder, beginning utterances with ‘the thing is’!’ (Swales, 2001, p. 52). However, he also asks whether as a result, these phrases should be taught to non-native speakers. In answer to Channell’s above claim that underuse of vague language can make non-native speakers seem pedantic or bookish, Swales recognises an alternative perspective: that not using such phrases could lead to the non-native speakers appearing ‘clear, clever, and precise’ (Swales, 2001, p. 52). He goes on to say that it is important for speakers to know when to use such language and when not to. Students, I would argue, should be alerted to different interpretations of formal language use in spoken academic English and given the choices about the forms they wish to use.

9.7 Chapter conclusion

This chapter has discussed the characteristics of seminar discussion on the macro and micro level. It has shown that seminar discussion is shaped by disciplinary purpose which allows the identification of DMGs discussed. The three main DMGs identified each had a strong character relating to their social purpose, that is, a functional fingerprint shared across disciplines. Disciplinary purposes discussed in this chapter take us beyond ‘debate’ as a model for seminar discussion.

As well as investigating which DMGs are present in the corpus, the study also aimed to investigate disciplinary similarities and differences in the DMGs. Overall, the stages in each of the three main DMGs display commonalities across disciplines in terms of both function and linguistic manifestation, but while some differences are discipline specific as anticipated at the beginning of this study, others are related to the DMG in question. The chapter has shown that seminar discussion is pragmatic in nature leading to its overall generic shape, but that on the micro level, creativity and informal language features are common, showing how seminar participants manage to meet the dual interpersonal/ institutional demands.

[S]ince the study of grammar grew out of writing, it is when language comes to be written down that it becomes an object of study, not before – our grammars are grammars of the written language. We have not yet learned to write choreographic grammars; so we look at spoken language through the lens of a grammar designed for writing. Spoken discourse thus appears as a distorted variant of written discourse, and not unnaturally it is found *wanting* (Halliday, 1989, pp. 66-67).

Chapter 10
Conclusions and Recommendations

This thesis began with a discussion of the low status of academic speaking in relation to writing and its neglect in EAP research, as well as teaching and materials design. While different genres of writing had previously been explored across disciplines, there were no previous studies that had attempted to compare different spoken genres of academic discussions. The need for research into the nature of seminar, and specifically for a study investigating the function and language of discussions across disciplines in UK HE seminars was identified. A study using an SFL genre framework combined with corpus techniques was conducted order to fill this gap in the research.

The original contributions to the field are threefold – empirical, theoretical and methodological. As an empirical piece of research, the study adds to our knowledge about the nature of seminar discussions across the disciplines. In terms of genre theory, the notion of genre to explore 'chunks of talk' has been extended. Methodologically, how corpus techniques can be incorporated to explore extended stretches of talk has been demonstrated. Each of these contributions is explored below as well as limitations with the study, and finally, recommendations are made for practice and for future research.

10.1 Original contributions of the study

10.1.1 Contributions to the field of EAP

As seminar discussions have not been investigated from a Systemic Functional perspective before, the findings reported in this thesis make three main contributions to the field of EAP from an empirical perspective. First, a clear picture is painted of

the function and linguistic patterning of disciplinary talk according to overall central disciplinary purpose. This picture of seminar discussion goes beyond the 'empty' exchange structures of classroom talk or isolated language items that have been the focus of much previous research on academic discourse. This thesis offers a first step in mapping the genres of disciplinary discussion. Second, the study has been able to demonstrate that previous notions of seminar discussion as 'debate' are not an adequate description of disciplinary discussions. Finally, the study has made an original contribution to previous dialogues about where on the spoken/ written continuum academic discussion stands, by showing that the multiple demands of seminar discussions lead to predictable patterning on the semantic plane, but that speakers exhibit creativity and 'conversationlike' features in their language use on the lexicogrammtical level. It is suggested that the adeptness that seminar participants are able to show in managing these multiple demands through language can be understood using Halliday's (2005) notion of a choreographic grammar of spoken discourse.

10.1.1.1 Disciplinary purpose and functional fingerprint

The first empirical contribution to the field is the characterisation of the discipline areas according to the most significant DMGs in each disciplinary subcorpus as noted in Chapter 9. The characterisation of discourse in particular discipline areas builds on work by previous researchers in universities as well as in school contexts (for example, Coffin, 2006; Nesi & Gardner, 2012). It also builds on work of previous researchers who have looked at different genres in written discourse in individual subjects (Coffin, 2006; Donohue, 2012). Of course the research presented here is a small-scale study and uses a small data set, so it cannot attempt to accomplish what researchers with much larger and more representative data sets of written language have achieved. However, it does pave the way for similar studies using larger data sets and more sophisticated methods than have been used here to characterise the form and function of disciplines as shaped by their disciplinary purpose.

The study found key characteristics of the DMGs shared across the different subcorpora, termed the 'functional fingerprint' of the DMG. These were the move from commonsense to uncommonsense meanings in the Responding DMG; in the Debating DMG, the oppositional nature of the discussion; and in the Problem Solving

DMG the collaborative nature of the discussion. Due to the paucity of research comparing disciplinary form and function in spoken discourse, it is not possible to compare this finding to previous work on spoken discourse. However, this work complements previous work on written discourse that noted grammatical and structural similarities between texts with similar purposes in different contexts (for example, Hoey, 1983). It also complements previous research into written academic discourse that has investigated differences in disciplinary practices (Nesi & Holmes, 2009).

By exploring the similarities and differences across disciplines, this study has helped identify lexicogrammar shared between disciplines. It has shown, for example, that the students in the PS subcorpus, as well as the students in the AH subcorpus are required to discuss their feelings about and responses to an event. The PS Responding DMG has more in common on the grammatical level with the Responding DMG in the AH sub corpus than it does with the Problem Solving DMG in the PS subcorpus. Rather than suggesting that particular disciplines use particular process types, for example, the findings from this study suggest that particular DMGs are likely to occur across different disciplines, and when students are involved in a particular DMG they are likely to use similar process types. This finding is significant as it means that EAP teachers can be made aware of what language is shared across disciplines, that is, what can be taught in a generalised EAP class, and where further differentiation is required, as, for example, in the different Evidence stages in the Debating DMG in the different subcorpora).

In the same way that previous researchers have started to ‘map’ school genres across the curriculum (mainly written genres, for example, Rose & Martin, 2012), this research is a very tentative first step towards mapping spoken discourse in higher education in the UK as Discussion Macro Genres. A simplified map of the Discussion Macro Genres identified in the corpus is shown in Table 10.1 below, but, as will be recommended in Section 10.4, can be refined following further research and can be adapted by departments for their own needs in particular institutions. It can also be broken down in to further levels of delicacy following further research according to exact discipline.

Table 10.1 Disciplinary map of Discussion Macro Genres across the corpus

DMG	Discipline Areas	Example of Field	Focus	Useful language features
Debating	Arts and Humanities	The Cuban Revolution (its success or failure)	Debating opposing viewpoints	Language to express polar positions, references to previous arguments, expressions of subtle disagreement, mental processes for putting forward opinions
	Social Sciences	Market-based economics (its compatibility with sustainable development)		
Responding	Arts and Humanities	The theme of beauty in film *The Thin Red Line*	Responding to an entity or event	Historical present often used in Description stage. Mental processes of cognition and emotion (Evaluation stage). Language for expressing uncommonsense meanings, for example abstract nouns (Interpretation stage)
	Physical Sciences	Responses to a team-work event		
Problem Solving	Physical Sciences	Binding ruthenium complexes to semi conductor surfaces	Solving a problem	Different process types in different stages, implicit/ explicit evaluative language, language for putting forward hypothetical solutions, collective participants, different process types in different discipline areas
	Social Sciences	Environmental problems caused by industrialisation in the third world		

Table 10.1 gives example of different fields for each DMG in each disciplinary area. In a multi-disciplinary EAP class, it would be useful for a teacher to have examples for each of the subject areas to which different students belong, while recognising that many of the lexicogrammatical features are the same across disciplines.

10.1.1.2 Moving beyond seminar discussion as debate

A second significant empirical contribution is the fact that this thesis offers a way of looking beyond 'debate' as the only form of discussion. Many current teaching materials for teaching seminar skills model functions of language that are in accordance with a 'debating' view of seminar discussion (see Chapter 3). While this may be suitable for some disciplines, no previous research has considered other macro purposes of discussion. In, fact as noted in the previous chapters, Debating appears in only two of the three disciplinary areas, and in AH is a secondary DMG. This is an exciting result, as despite realising as an EAP teacher that setting up debates in class was not the ideal way of teaching academic speaking, lack of resources and little empirical research meant I had no other models of effective seminar discussions. Through the identification of the two other DMGs prevalent in this small corpus of seminar discussion, it is now possible to show EAP teachers other types of seminar discussion and to provide the linguistic tools for students to participate in these other types of discussion. Perhaps more significantly, the study has opened up the possibility of recognising other social purposes of discussion. The results presented here suggest that debating an issue is not the only purpose that shapes discussion. Findings were reminiscent of types of talk put forward by those using a sociocultural approach (for example Mercer & Littleton, 2007) and offer ways of being creative in setting tasks for students to participate in that will allow maximum involvement.

10.1.1.3 A 'choreographic' grammar of spoken academic discourse

A third contribution is to add to the dialogue about the differences between spoken and written discourse (McCarthy and Carter, 2002), and where on the continuum spoken academic discussion stands (for example Csomay, 2006). The pragmatic nature of the discussion according to central disciplinary purpose is shown on the macro level, supporting previous research about the structure of disciplinary written

texts. Furthermore, the co-construction and dynamic ordering of stages helps highlight the flow and spontaneity of spoken academic discussion. This co-construction and dynamicity of the DMGs is supplemented by lexical and grammatical features of 'informal' spoken discourse which together demonstrate the interpersonal character of seminar discussion and make it seem conversation-like.

These findings relating to the mixed pragmatic/ interpersonal nature of discussions add to previous observations about where spoken academic discourse lies on the oral–literate continuum (Csomay, 2006). However, rather than solely investigating isolated language features to discover more about the hybrid nature of academic discourse, as previous researchers have done, this study recognised that the prose-like feel of the discourse is related to its overall macro purpose. This supports Csomay's (2006) observations that spoken academic discourse is prose-like as a result of its information load. The results also point to the importance of recognising 'conversation-like' features on the micro level. Moving away from stilted static functions typical of the EAP text book (*I am afraid I disagree with you*) the study goes some way in helping to write Halliday's (1989) notion of a 'choreographic grammar' of spoken discourse to give students the tools they need to take the floor in real rather than idealised academic seminar discussion.

In fact, it transpires that Halliday's metaphor of the choreographic grammar of spoken discourse is one that is fitting for academic seminar discussions in a number of ways. Specifically, the results of the investigations point to a grammar which gives speakers the tools they need to step in time to the institutional beat of the staging of a DMG on the semantic plane, while exercising creativity and using conversational features on the lexicogrammatical level. That is, the staging is determined by disciplinary content and remains relatively fixed in terms of function, while the linguistic expression of the content is more fluid. In other words, the mix of the prose-like and the conversation-like, the fixed and the flexible, helps seminar participants to manage dual demands. These demands are the disciplinary/ institutional demands and the complexities of interpersonal demands of face-to-face seminar discussion with staff and peers. If on the semantic level the students follow the DMG stages, on the lexicogrammatical level they need to make use of a grammar that notes the distinction between speech and writing as advocated by McCarthy & Carter (2002).

Some features of grammar of this spoken academic discussion were highlighted in Chapters 6 to 8. The results showed what might perhaps be termed 'unpleasing anomalies' in spoken language (following McCarthy & Carter 2002). Many of the features discussed are certainly the irregularities that McCarthy and Carter (ibid.) note may go against the grammarian's instincts concerning correctness or acceptability. For example: *and then I was like it's not working* (pssem003ug). The question is, should we immediately throw away the rule book and start teaching our students to say *he's like…* instead of *he said…*? The answer to this is, infuriatingly, mixed. While there is certainly an overwhelmingly strong case for recognising and investigating further the particular grammar of spoken academic discourse, this should be approached with caution. The features presented in the preceding chapters are only a first step in recognising the spoken grammar of the DMGs identified, and as McCarthy and Carter (ibid.) note, anomalies should be checked as to their distribution across speakers and contexts. If it transpires that there are a sufficient number of examples from different speakers in different contexts to indicate that a feature is normal and widespread, then it should be entered into a 'grammar' of spoken academic discourse, even though it may be considered unacceptable in writing, or in more formal contexts. That is, the findings presented here are a first step only, and need to be investigated in a larger corpus and on further data sets to see which of these features should be entered into a grammar. However, what is certain from the results presented here is that the interpersonal elements of spoken academic discourse are not an extra: managing the dual demands of disciplinary and interpersonal aims in seminar discussion is crucial for successful participation in seminars.

10.1.2 Discussion Macro Genres: a SFL genre model of extended stretches of talk

The SFL genre framework adapted for use in this study enabled the identification of longer stretches of talk than have previously been noted (for example Eggins and Slade, 2005), leading to further insights on the micro level. The fact that so much of the seminar discussion could be categorised according to the DMGs identified showed that social purpose can extend beyond small chunks which are often mainly one person speaking or transactional genres to much longer chunks of seemingly

open-ended discussion. Previous research into genres in spoken language has looked at narratives in conversation (Eggins & Slade, 2005), or transactional genres such as service encounters (Ventola, 1987). The extension of an SFL genre model (after Eggins & Slade 2005) to investigate longer stretches of discourse, namely Discussion Macro Genres, is particularly relevant for spoken academic discourse. This framework can be used to map other DMGs in seminar discussions or other academic talk, as the DMGs investigated here are not an exhaustive list. While previous research has provided invaluable insights into the way that students build on turns to construct discussion (for example, Basturkmen, 2000), approaching the discussion from this functional angle has shown that there is an overall shape or purpose to the majority of the seminar discussions in the corpus, which allows them to be classified according to a number of different DMGs.

As reported in Chapter 4, common patterns in the order of stages were highlighted, and led to a number of useful insights, such as the move from commonsense meanings to abstraction in the Responding DMG, and the use of subtle counterargument through foregrounding the Evidence stage in Debating. However, it was not attempted to signal the order of stages in the seminar discussion using structural notation, as other researchers had done with purely transactional interactive genres in spoken discourse, for example the service encounter (Mitchell, 1957), or other ‘chunks of talk’ such as the narrative (Plum, 1998; Eggins & Slade, 2005). This is due to the interactional nature of the DMGs and the fact that multiple speakers are working together to co-construct the dialogue. The importance of recognising that language can have predictable patterns according to function while still being dynamic and open to change, has long been noted by genre theorists in SFL and ESP schools, as was observed in Chapter 3 (for example, Martin & Rose, 2008) and with regard to spoken language (Ventola, 1987; Swales, 2004; Hasan, 2009). While recognising that the different social purposes of each DMG are important in shaping its discourse patterns though maintaining flexibility on the interactive level of moves, the framework developed for use here recognises the freedom that speakers have within a given genre and is thus particularly suited to investigating interactive talk.

10.1.3 The combination of SFL theory and corpus techniques

On a methodological level, the combination of SFL theory and corpus techniques used in this study could be used to investigate other stretches of talk. The study has provided insights that would not have been possible without the integration of corpus techniques used in conjunction with SFL theory and shows that this is a feasible means of investigating spoken corpora.

Previous researchers have used similar combined techniques to investigate discourse (O'Halloran, 2011; Coffin et al, 2012) but not to compare extended stretches of talk in the same way that this study does. The present thesis has also answered calls, by for example, Butler (2004) to use the tools of Corpus Linguistics to rigorously test the claims about language made by functional theorists. As noted by Halliday (2004, p.19), of the 'non-standard' patterns in talk:

> [t]here is a long history of stigmatising patterns that do not conform to the canons of written language…

He continues by noting that:

> it is precisely because there are patterns which don't occur in writing, we need a corpus of spoken language to reveal them (ibid.).

In working with a corpus of spoken language, it is hoped that this thesis has been able not only to reveal some of these patterns as they exist in the grammar of seminar discussions across the disciplines, but also to show how this can be done practically. There were numerous advantages in integrating the corpus techniques. The use of keyword analysis or word and n-gram frequency lists showed which features to investigate further, while the use of the SFL framework provided a theoretical lens through which to view these findings. For example, the common occurrence of the progressive verb form was found mainly in the Interpretation stage in the Responding DMG, and this turned out to be a crucial element of the phraseology signalling the move from commonsense to uncommon sense meanings in this particular DMG.

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10.2 Recommendations

While the sections above have necessarily alluded to the pedagogical implications of this thesis, this section spells out in practical terms some recommendations for EAP pedagogy and materials design.

As noted in Chapters 2, concerns about the lack of authenticity of teaching materials for seminar skills have been voiced by numerous researchers over the previous two decades (for example, Basturkmen, 2002). But, despite insights into seminar discussions provided by these researchers and others, examples of currently acclaimed EAP teaching materials for classroom use show that little has changed in the intervening period in terms of teaching materials available. [41] Researchers note that the problems with existing speaking materials include the fact that they lack authentic models and tasks to provide students with the resources they need for their communicative purposes. Furthermore, they do not reflect the nature of spoken interaction in terms of the fluidity of interactions, formulaic expressions used, and grammatical and discourse features of spoken language (reported in Goh & Burns, 2012). This thesis has made a contribution here by highlighting a number of these features as they exist in spoken academic seminars and that could be incorporated into teaching materials.

The thesis has shown not only which tasks are salient in the different discipline areas, but has also provided models of how these can be played out linguistically. The question types identified as prompts in each of the different DMGs can be used in classroom situations and adapted to fields that students are looking at in order to model and elicit the DMGs that the teachers want students to be able to practice. The table below shows some of the questions or prompts which elicit each DMG.

[41] See Appendix 14 for a number of examples of 'useful phrases' in current seminar teaching materials.

Summary and example of question types

Table 10.2 DMG elicits

Problem Solving	Debating	Responding
What do we need to do? How can we…?	Is it x or y? Do you think x or y?	What happened? Can you describe it? What did you think/ feel? What does it mean?

Such questions can be used in conjunction with and a consideration of, and explicit modelling of the DMGs' staging and lexicogrammar. Again, while recognising that there is no *one* correct method of teaching, this next section returns to the teaching-learning cycle first outlined in Chapter 3 and suggests one way of ensuring that students gain access to and practice in using the different DMGs they will be exposed to in their course. The teaching learning cycle diagram is repeated below for ease of reference.

Figure 10.1 Teaching learning cycle for mentoring genre (Martin, 2009, p. 16)

The steps illustrated in Figure 10.1 could be used with an extract from the Responding DMG.[42] In such a teaching cycle, modelling and deconstructing the text, the students might need to watch a recording of a seminar and answer questions

[42] Unfortunately, the BASE seminars are not available for use, although the same process could be applied with any authentic data.

about what task the students are involved in, for example, responding to a film. They could deconstruct the language by identifying features of the different stages, recognising the fluidity of the interactions, and identifying the discourse features of the language and the formulaic expressions. This might include, for example, noticing which tenses are used in the Description stage and highlighting evaluative language used in the Evaluation stage, as well as the more abstract language and grammatical metaphors in the Interpretation stage. Also, importantly, the interpersonal elements of the language would be highlighted. In the joint construction stage, students could work together, and in collaboration with the teacher in a whole-class feedback activity, consider the choices available and ways in which the different stages and moves could be manifested linguistically. These teaching phases would not all have to take place in one lesson but could be built up to a full interaction where students take part in their own discussion responding to a film or text.

An approach such as the one above would mean that the student would be involved in the following:

Preparation activities

Discourse activities

Language activities

Interaction activities

Such a process involves going beyond fluency practice, and teaches speaking in a meaningful and systematic way as advocated by Goh and Burns (2012) and outlined in Chapter 3 of this thesis. As noted by Goh and Burns, '[m]any speaking activities in the classroom are transient and occur as standalone or one-off activities. There is little overt attention paid to the process of learning about speaking, and the outcomes of activities are not always documented' (p. 152). The authors state that in such a situation learners may not be able to recall or state what it is they have learned. Though originally developed for teaching writing, the effectiveness of genre pedagogy teaching learning cycle, is that it is made clear what the learners are expected to achieve overall and in each stage. This means that by not only practicing the speaking tasks, but also thinking about what it is they are meant to be practicing,

the students will be focusing on their metacognitive development as advocated by Goh and Burns (2012).

This study of seminar discussions across the disciplines has highlighted the need for a number of features to be taken account of in designing a teaching syllabus for teaching seminar skills. In sum, a speaking syllabus should be:

- Needs based: what DMGs will students come into contact with in their courses? Close contact with departments is recommended, and where possible, seminar reading materials and sample tasks provided, so that EAP teachers can identify social purposes and the useful discourse features.

- Focussed on the disciplinary as well as the interpersonal demands: which grammatical features are important in the different stages and where and how is the interpersonal foregrounded? These features should also be discussed with students as well as the multiple demands and audiences that they will need to deal with in seminars.

Features of talk that need to be considered in a teaching syllabus are:

- Macro features: what tasks EAP lecturers can ask students to perform and what questions will elicit the appropriate DMGs?

- Micro features: what are the linguistic resources that speakers can use to perform particular functions and what are the lexicogrammatical resources available for students for making meanings in particular disciplinary contexts?

10.3 Limitations of the study

Despite the considerable contributions that the study has made, there are of course limitations: some of which were apparent at the start of the project as a result of limited resources; and others that became clearer towards the end of the process. A number of these limitations in terms of the data and the methods are now discussed.

Key problems with the data are issues around the ‘representativeness’ of the corpus. Having taken the decision to use an off the shelf corpus (the reasons for

doing so were discussed in Chapter 4), the corpus chosen had certain limitations for the specific research project. As noted in Chapter 4, some disciplines and discipline areas were not represented, while some of the disciplines were *over*-represented in the study corpus. Another limitation of the data also dealt with was the out-dated nature of the corpus. This thesis certainly does not attempt to suggest that these are the only DMGs existing in HE in the UK context, or that the DMGs represent each disciplinary subcorpus.

From a Corpus Linguistics perspective, the data set could be considered too 'small' to yield reliable findings: one limitation of the thesis is that it only investigated 17 seminars. However, the analysis started from a qualitative standpoint, and the thorough functional analysis required meant that this was a manageable amount of data to process in detail in the time available. Indeed, the commonalities found across the corpus in terms of how the DMGs are played out linguistically suggest that the relatively small token count of the corpus was sufficient to give some idea of the DMGs across the corpus, as well as demonstrate the potential for using such an approach to investigate further data.

A possible criticism of the thesis in terms of the methodology may be that it attempts to 'tidy up' the data by fitting it in to convenient models. As discussed in Chapter 4, the stages were left sufficiently broad so that the data did not need to be 'squeezed' to fit the model. This broad categorisation meant that what, for example, was counted under an Argument stage was broad enough to also include elements which were justifying or limiting the scope of a current or previous argument. The fact that the stages were left broad allowed the distinctions within the stages to emerge from the linguistic analyses of the stages. In sum, the reduction of the data into abstract categories will always be a simplification – there could of course be more delicate levels, but the aim here was to allow comparisons across disciplinary subcorpora and the pedagogical aims did not require such levels of delicacy in the annotation.

10.4 Directions for future research

As a result of the research conducted here, various questions remain open and would benefit from future research. These are: investigations into other disciplinary

areas, a comparison of these results with other academic corpora, and an investigation of some of the minor DMGs.

Firstly, the investigation of seminars could be extended into further discipline areas, for example, Life Sciences, to identify further DMGs, and to see how representative the disciplinary spread here is.

A further investigation of PS corpora is also recommended as this subcorpus seemed less representative than the others. The fact that such a large component of the PS subcorpus was made up of the Responding DMG was a surprising result, and it would be worthwhile to see if this is common across institutions and subjects.

A further investigation of the minor DMGs that emerged is recommended, particularly Organising. It may seem that Organising is a DMG outside of the curriculum, but it is in fact an important DMG. It is often here that many of the foundations are laid for the students' future participation in a course: for example, setting up groupwork and deciding what topic will be studied and what the student's contribution to it will be. If at this stage a student's voice is not heard, then the student may end up studying something that he/she is not interested in. This stage is also where work for future sessions is allocated, as for example in the Art History Seminar, where students suggest artists that they would like to study for discussion in future seminars.

Further recommendations for future research directions are cross-cultural comparisons with MICSE, for example, as well as an incorporation of ethnographic elements into the study of DMGs in order to gain what in from a Swalesian ESP genre perspective would be the 'expert opinions' from members of the discourse community, in this case the students and tutors.

10.5 Concluding remarks

This research was conducted in part for my students: the students who want help with speaking in seminars; the students who complain that they do not know what to say or how to say it. It will help them to realise the options in meaning making that are available to them in a particular disciplinary context, and to understand the multiple interpersonal and institutional demands of seminar discussions. It is hoped

that this research may give some help to the less confident students who may feel that they need to put forward a strong and already formed opinion in order to participate in seminar discussion. Often contributions are questions rather than statements of opinion, and less confident students may find this a less threatening way into a discussion than the need to commit to a particular point of view. Also by offering a means of demonstrating how stretches of discourse are shaped on a functional level, this thesis may give students a real handle on what it is they are expected to be contributing to a seminar discussion.

The research was also conducted for EAP teachers and materials designers. EAP teachers, who were somehow dissatisfied with a discussion class, which although on the surface a seemingly successful heated debate, on closer investigation, did not seem to be contributing to the development of the skills of more than one or two ‘star speakers’. The findings here it is hoped, will give these teachers some other ways of conceiving of seminar discussion, some pointers for when the debate is becoming eristic or personal, and also some alternative real language to teach students who want to participate in seminar discussion.

Finally, it is hoped that this thesis has made a contribution, as called for by Hamp-Lyons and Hyland (2002, p. 10) in the inaugural JEAP editorial, ‘to our understanding of the varied ways language is used in academic communities to provide ever more strongly informed foundations for pedagogic materials’.

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Appendices

Appendix 1: Spoken academic corpora in English

Corpus	Notes & url
The British Academic Spoken English (BASE) corpus	Lectures and seminars in different departments at the Universities of Warwick and Reading distributed across four broad disciplinary groups, each represented by 40 lectures and 10 seminars. Available at a cost for researchers upon request (transcripts are freely available on the internet). http://www2.warwick.ac.uk/fac/soc/al/research/collect/base/
The English as a Lingua Franca in Academic Settings Corpus (ELFA)	Compiled in Finland at Tampere University and Tampere Technological University, ELFA comprises a total of 1 million words of transcribed recordings of ELF used in a variety of academic contexts and event types across a variety of academic disciplines. http://www.helsinki.fi/englanti/elfa/elfacorpus
Michigan Corpus of Academic Spoken English (MICASE)	152 speech events recorded at the University of Michigan between 1997 and 2001. Fifteen categories of speech event are represented, across four broad academic divisions: Humanities and Arts, Social Sciences and Education, Biological and Health Sciences and Physical Sciences and Engineering. The corpus is available for purchase and can also be accessed via a free online interface. http://quod.lib.umich.edu/m/micase/

Corpus	Notes & url
Vienna-Oxford International Corpus of English (VOICE)	English as a Lingua Franca interactions, equalling approximately 120 hours of transcribed speech, and covering the following speech event types: interviews, press conferences, service encounters, seminar discussions, working group discussions, workshop discussions, meetings, question-answer-sessions, conversations and panels with 35% being in the educational domain. http://quod.lib.umich.edu/m/micase/

2) Some of the most relevant corpora not in the public domain

Corpus	Notes/ url (if available)
The TOEFL 2000 Spoken & Written Academic Language Corpus (T2K-SWAL)	Various spoken and written activity types, including classroom teaching, study groups, on-campus service encounters, and institutional writing, covering six major disciplines (Business, Engineering, Natural Science, Social Science, Humanities, Education) at three different levels of education (lower division, upper division, graduate) across four universities (Northern Arizona, Iowa State, California State Sacramento, and Georgia State).
The Limerick-Belfast Corpus of Academic Spoken English (LIBEL CASE).	One million words of lectures, labs and presentations at Limerick University and Queens University Belfast. http://www.ivacs.mic.ul.ie/corpora/
The Singapore Corpus of Research in Education (SCoRE).	A multimodal, multilevel annotated corpus of classroom interactions in Singapore primary and secondary schools http://www.nie.edu.sg/research-projects/singapore-corpus-research-education-score

3) Corpora in preparation

Corpus/ Study	Notes/ url (if available)
City University Corpus of Academic Spoken English (CUCASE)	A 2 million word multimedia corpus of native and non-native spoken academic English being compiled at City University in Hong Kong. http://roweb.cityu.edu.hk/2008-2009/project/7002193P.htm
Edinburgh Academic Spoken English Corpus (EDASE)	EDASE contains data recorded in the School of Education at Edinburgh University (lectures, workshops, tutorials, one-to-one supervision meetings, seminar and conference presentations, meetings etc.).
Engineering Lecture Corpus (ELC).	Video recordings and transcripts from Engineering lectures delivered at three universities: Coventry University in the UK, Universiti Teknologi Malaysia (UTM) in Malaysia and Auckland University of Technology (AUT) in New Zealand. Transcripts of lectures delivered at the Universiti degli Studi di Napoli (Fedrico II) are currently being added. The marked up and annotated xml flies will be made publicly available once the corpus has been finalised. http://www.coventry.ac.uk/research/research-directory/art-design/engineering-lecture-corpus-elc/
Newcastle University Corpus of Academic Spoken English. (NUCASE)	Target of 1m word corpus of small group teaching talk: Seminars, Tutorials, Projects, PhD supervisions, Practicals, Language Classes in the subject areas of Engineering, Business, Education, INTO, Informatics and Dentistry with a focus on collecting data to investigate interactional competence. http://www.ncl.ac.uk/ecls/research/project/4175

Information adapted from: Coventry University Research Net, accessed 6 September, 2010, and David Lee's corpus resources page (http://tiny.cc/corpora accessed 29/10/2014)

Appendix 2: Seminar titles and DMGs in each seminar

File ref	Department	Title of seminar	DMGs
ahsem003ug	Comparative American Studies	The Cuban revolution	Debating
ahsem004ug	English and Comparative Literary Studies	Modes of Writing: Poetics	Responding
ahsem006ug	Film and Television Studies	Beauty and ‘the thin red line’	Responding
ahsem007	History of Art	Institutional critique	Responding
ahsem008pg	History	The medical market place	Debating Explaining
ahsem010pg	Theatre Studies	Arts Sponsorship	Problem Solving
pssem001ug	Chemistry	Radiation and Photochemistry	Problem Solving
pssem002ug	Chemistry	First Activity - Pipeline	Responding
pssem003ug	Chemistry	Second activity - blindfold numbers	Responding

File ref	Department	Title of seminar	DMGs
pssem004ug	Chemistry	Third activity	Responding
pssem007ug	Engineering	Engineering project meeting	Organising
sssem002pg	Gender Studies	Gender and Globalisation	Problem Solving Debating
sssem003pg	Economics	Industrial Economic Analysis	Problem Solving
sssem005pg	Development Studies	Globalization and the Environment	Problem Solving Debating
sssem006ug	Law	Criminal Law: Accomplice Liability	Problem Solving Debating
sssem007ug	Psychology	Built-in Social Behaviour in Territoriality and Sexual Behaviour	Debating
sssem008ug	Social Policy	Contemporary Health Issues: Unemployment and health	Debating

Appendix 3: Speaker identification codes in the corpus

The code is a 6 character code unless there are multiple speakers in unison or saying the same thing not necessarily in unison if individual speakers cannot be distinguished*. Codes are as follows.

Character and value	**Speaker characteristic signified**
1st character: **o, n** or **s** characterises speaker	o observer i.e. cameraperson n non-student s student
2nd character: **m, f** or **u** sex of speaker	m male f female u unknown
3rd-6th characters numeric – 5001 onwards	speaker IDs

* If there are multiple speakers in unison or saying the same thing not necessarily in unison if individual speakers cannot be distinguished then the id is as follows and not a 6 character code: **ss** audience members, not necessarily students **sl** audience members and current speaker (information adapted from the BASE manual, Nesi & Thompson, 2006).

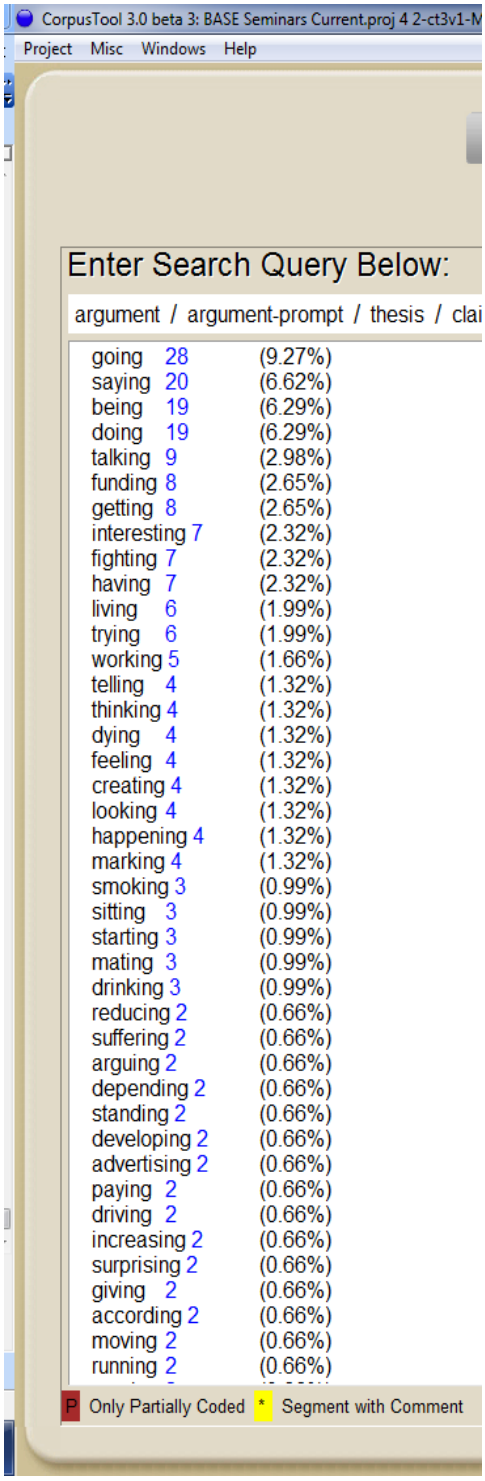
Appendix 4: 2-grams across the entire corpus

Aspect of Interest: Phrases Unit: phase +

Phrase Length: 2

Phrase	Count
it 's	1818
you know	1280
i think	960
of the	872
that 's	822
in the	743
i mean	684
sort of	647
kind of	516
if you	488
going to	470
's a	409
to be	408
there 's	373
and then	364
have to	349
it was	340
do you	336
i don't	327
've got	320
to do	317
he 's	314
to the	306
on the	299
and the	282
i 'm	280
you 've	274
you can	261
in a	260

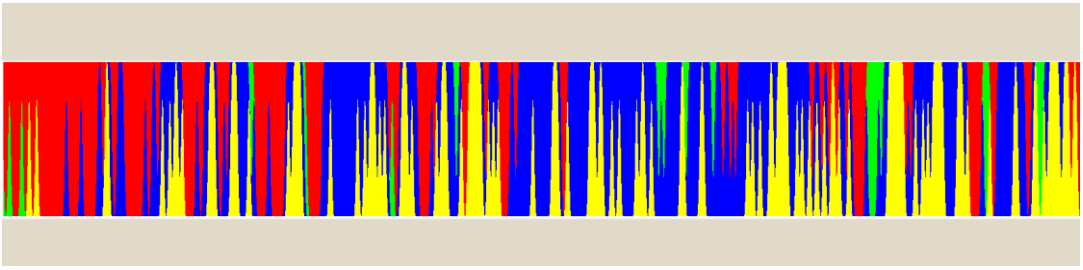
Appendix 5: *ing verbs in the Debating – Argument stage



Appendix 6: Rapid fire and extended Problem Solving stages[43]

1. Rapid fire 'on task' Problem Solving DMG

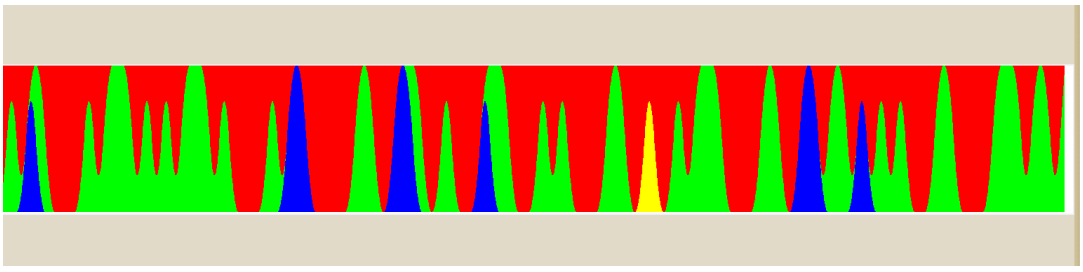
	Situation
	Problem
	Solution
	Evaluation



pssem002ug: Pipeline task

2. Extended stage Problem Solving DMG

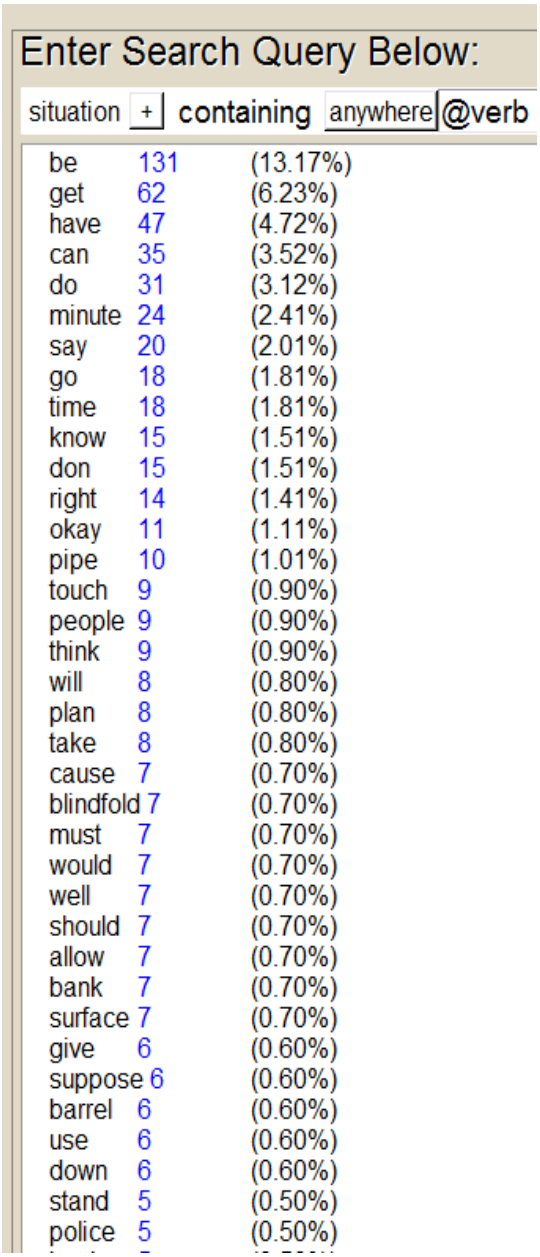
	Situation
	Problem
	Solution
	Evaluation



ssem002pg: Gender and Globalisation

[43] The figures above show length of stages rather than time and are an approximation.

Appendix 7: Lemmatised verb frequency list: Problem Solving – Situation stage[44]



be	131	(13.17%)
get	62	(6.23%)
have	47	(4.72%)
can	35	(3.52%)
do	31	(3.12%)
minute	24	(2.41%)
say	20	(2.01%)
go	18	(1.81%)
time	18	(1.81%)
know	15	(1.51%)
don	15	(1.51%)
right	14	(1.41%)
okay	11	(1.11%)
pipe	10	(1.01%)
touch	9	(0.90%)
people	9	(0.90%)
think	9	(0.90%)
will	8	(0.80%)
plan	8	(0.80%)
take	8	(0.80%)
cause	7	(0.70%)
blindfold	7	(0.70%)
must	7	(0.70%)
would	7	(0.70%)
well	7	(0.70%)
should	7	(0.70%)
allow	7	(0.70%)
bank	7	(0.70%)
surface	7	(0.70%)
give	6	(0.60%)
suppose	6	(0.60%)
barrel	6	(0.60%)
use	6	(0.60%)
down	6	(0.60%)
stand	5	(0.50%)
police	5	(0.50%)

[44] Though there is a slight margin of error and the words in the list are not all verbs, useful information about verbs in this stage can still be surmised.

Appendix 8: An overview of process types in SFL theory

Process type	Function	Examples	Examples from corpus_ref
1. MATERIAL	Encode experience in the external, material world.	arrive, collapse, work, bolt	make the pipeline _pssem002ug
BEHAVIOURAL	Encode physiological or psychological behaviour (somewhere between material and mental or verbal processes).	sneezed, watch, sing, talk	talk to the men in the country_sssem002ug
2. MENTAL	Project inward (thinking, wanting, perceiving and emoting).	overhear, enjoy, remember	if that's just selfishness that you don't want to share any food_ssem006ug
VERBAL	Project outward (saying and asking).	tell, say, ask	what they've actually said is that.sssem002ug
3. EXISTENTIAL	Set up existence of sole participant	(there) are, was, were	there's a new concert hall; there have been new projects_ahsem010pg
RELATIONAL	Encode relationship of being and having between two participants.	are, was were, seem, become, belong to	the consequences of structural adjustments have become institutionalised in the global development process_sssem002pg

Adapted from Halliday and Matthiessen (2004, p. 260)

Appendix 9: Selected features across the corpus

If across the DMGs

DMG	if (n)	/1000 words of discussion
Responding	96	2.1
Debating	55	1.1
Problem Solving	143	3.8

Yeah across DMGs

DMG	yeah (n)	/1000 words of discussion
Responding	244	5.5
Debating	167	3.4
Problem Solving	200	5.3

Yeah, yes or *yep* across DMGs

DMG	yeah/ yes/ yep (n)	/1000 words of discussion
Responding	287	6.5
Debating	204	4.1
Problem Solving	225	6.0

Appendix 10: Verbs across the DMGs

Problem Solving	Responding	Debating
be (10.7%)	be (12.84%)	be (14.31%)
do (4.52%)	think (4.95%)	know (4.21%)
get (4.37%)	do (4.77%)	have (4.13%)
go (4.35%)	have (3.32%)	think (3.78%)
have (3.83%)	like (3.30)	do (3.32%)
can (3.06%)	know (3.13%)	like (2.25%)

Appendix 11: The APPRAISAL system: Judgement and appreciation as institutionalised affect

(Martin & White, 2005, p.45)[45]

[45] The diagram above demonstrates a way of thinking about judgement and appreciation of institutionalised feelings. Both judgement and appreciation are, according to Martin and White, a way of taking us out of 'our everyday common sense world into the uncommonsense worlds of shared community values.' (Martin & white, 2005, p.45).

Appendix 12: 3-grams in the entire seminar discussion data

Phrase	Count
it 's a	208
it 's not	172
i don't know	164
you 've got	163
i think it	143
i think that	134
a lot of	113
there 's a	109
's it 's	106
one of the	105
it 's it	105
you want to	104
think it 's	104
do you think	98
going to be	95
and it 's	95
we 've got	94
you have to	87
but it 's	87
that 's the	86
it 's just	85
you know the	82
i mean i	82
er you know	82
i don't think	81
and i think	81
's going to	80
do you want	78
that 's a	78
so it 's	78

Appendix 13: Most common 3-grams in the different DMGs

3-grams Debating

Phrase	Count
it 's a	46
i think that	43
it 's not	40
a lot of	35
there 's a	35
one of the	34
i think it	33
think it 's	31
i mean i	29
do you think	29
that 's a	28
er you know	26
er i mean	25
and i think	24
a sort of	21
think that 's	21
i mean you	21
but it 's	20
's it 's	20
and that 's	20
that 's the	20
i think you	19
it 's just	19
that it 's	19
that you know	19
there is a	18
you 've got	18
i don't know	18
that 's what	18
i don't think	18

3-grams Responding

Phrase	Count
i think it	63
it 's a	55
think it 's	46
i don't know	40
it 's it	39
's it 's	37
i think that	34
it 's not	32
it 's like	31
a lot of	29
a kind of	28
er it 's	28
and i think	28
er i think	26
it 's just	26
i think we	26
do you think	25
and it 's	25
i mean i	24
i don't think	23
you know the	22
but it 's	22
at the end	22
that it 's	21
the fact that	21
i 'm not	20
you know it	20
that 's the	20
it 's quite	20
er i mean	20

3-grams Problem Solving

Phrase	Count
you 've got	50
we 've got	27
've got to	25
going to be	23
it 's not	22
it 's a	22
if it 's	20
's going to	19
you want to	18
do you want	17
we have to	16
going to have	14
that 's the	13
in a line	13
to have to	13
you have to	12
what what what	12
i don't know	11
but it 's	10
how do you	10
one of the	10
you need to	9
it 's going	9
so it 's	9
what 's the	9
have to do	9
that 's a	9
be able to	9
you're going to	9
we're going to	9

Appendix 14: Examples of current learning materials

Murphy (2006, p.44)

This is the ‘skills bank’ from the *Garnet English for Psychology in Higher Education* coursebook (Short, 2010, p. 45); however, it is identical in each of the books of the series.