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Arguing on-line and off: A study of students' argumentation in the context of computer-mediated discussion and individually written assignments.

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A thesis submitted to the Centre for Language and Communication, Faculty of Education and Language Studies, the Open University, in partial fulfilment of the requirements for the degree of Doctor of Philosophy

July 2005

ProQuest Number: 13917245

ProQuest 13917245

Abstract

The thesis compares argumentation in two media, electronic computer conferences, conducted for educational purposes, and individually written course assignments in a distance education Business Management course. The study reveals the influence of multimodality on argumentation and identifies ways in which the students adapt their argumentation to comply with the contextual and ideological requirements of two media. A linguistic understanding of argumentation is developed and applied, wherein argumentation is seen as a discourse, subject to social and ideological influences. Theme analysis, drawing on systemic functional linguistics, is the predominant analytical tool, while qualitative methods of research, in the form of interviews and document analysis, are also used.

Theme analysis revealed that the argumentation in the computer conferences was organised around interpersonal cohesion, foregrounding the writer as a persuasive voice in the text, while the argumentation in the assignments was organised around ideational cohesion, foregrounding the course content, with little visible presence of the author. The consequence of these different interpersonal positionings was that propositions were made differently in each medium, counter-arguments were developed differently, and the sources to which the students attributed their arguments were different. It was concluded that the exigencies of the dialogic technology of the computer conferences, plus their educational context produced cooperative forms of argumentation. The social and ideological influences shaping the assignment argumentation were more diverse. The interviews revealed that the attitudes towards argumentation held by the students influenced how they engaged in the computer conferences, with some students prioritising argument and others prioritising the communication of information. It was also found that students with an orientation to academic writing found that there was a strong relationship between their conference argumentation and assignment argumentation, and believed this aided their assignment writing. This indicates potential for developing subject specific argumentation and academic writing.

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1 Introduction

The focus of this study is the interface between two modes of written argumentation: the written argumentation that occurs when students engage in electronically mediated discussions within the context of a distance education university course and the written argumentation produced by individual students when writing assignments for assessment. The argumentation is therefore examined as an aspect of academic literacy practices in both conventional and electronic environments. Because of the specific learning context, the study explores argumentation and academic writing, plus aspects of digital literacy and collaborative learning in distance education,

The motivation for this study arises out of new innovations in pedagogy made possible by computer technology, together with concerns about academic literacy in higher education, specifically the ability of students to engage in argumentation.

1.1 The advent of computer technologies and student-centred collaborative learning

Learning centred pedagogy, in which students engage in reflection, dialogic enquiry and knowledge construction through forms of group discussion in schools and universities, is a developing area of research. It is founded on several theoretical traditions including sociocultural learning developed from Vygotsky and post-Vygotskyan theories (e.g Crook, 1994; Littleton & Light, 1999; Mercer et al., 1999), activity theory (e.g. Engestrom, 2002; Russell, 2002) and views of learning as engagements in communities of practice (Lave & Wenger, 1991).

Concomitant with these developments in learning theory has been the advent of web-based instruction in institutions of higher education. This aspect of educational technology is supported by a wide array of component technologies (see Khan, 1997:7) which have made possible a virtual learning environment (e.g. Laurillard, 1993;

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Rowntree, 1995). The new technologies provide resources for learning which range far wider than the printed text. Though this has led to an enrichment in pedagogy, students have to learn different literacy practices in the new learning contexts engendered by the technology (Lea, 2002). One of the resources for learning drawn on by educators is computer conference technology (Herring, 2004) and this has increased the potential for collaborative, enquiry-focused learning (Hammond & Bennet, 2002), referred to as computer-mediated collaborative learning.

Conference technologies include asynchronous systems such as email, listservs and newsgroups, in which participants do not need to communicate in present time, and synchronous systems such as Chat Rooms, Instant Messaging and Multi User Domains (MUDs) in which users have to be on-line at the same time and so are present during the communication. Use of conference technologies in distance education is considered to surpass previous printed text, telephone, CD and video technologies in one principled way. It enables interactions between student and tutor and student and student in ways that have similarities to the tutorials of conventional universities. As such, this use of conference technology is called the third generation of distance education (Garrison, 1985, 1997). Several claims are made for this kind of on-line interaction. It is claimed that this form of communication enables students in distance education to both 'simulate the kinds of academic discussion that face-to-face tutorials would otherwise allow' (Jones et al., 2000:20), and to learn by collaborating independently of tutor input (Salmon, 2000). It is also claimed that on-line learning supports a view of knowledge as constructivist or mediated in communities of practice (McCormick & Scrimshaw, 2001).

Studies of learning using interactive computer technology focus on designs of the technology (e.g. Harasim et al., 1995; Hewitt et al., 2002; Turoff et al., 1999), patterns of interaction by participants (e.g. Howe & Tolmie, 1999; Howell-Richardson & Mellor, 1996), collaborative use of the technology (e.g. Hammond, 2000; Lally & Barrett, 1999), issues of social presence and social interaction on-line (e.g. Anderson, 2001; Chih-Hsiung & Corry, 2001), learning processes and cognitive growth (e.g. Gunawardena et al., 1997; Henri, 1992) and digital literacy (e.g. Baron, 1998; Snyder, 2002). These bodies of research tend to use content analysis as a methodology for

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research and focus on the conferences as evidence of social, cultural and cognitive positioning. The role of language in promoting these forms of engagement could be said to be invisible in these studies. Another category of research in this field is the study of the use of computer conferencing technology in writing programmes. These are pedagogies used in American universities and school writing classes in which writers collaborate. Collaborative writing is defined as 'groups of two or more people working in concert on a common text project in an environment supportive of their text and ideas sharing' (Bonk & King, 1998:7). Even many of these studies analyse patterns of interaction from the point of view of levels of sociocognitive engagement and student interaction (e.g. Charoula & Cunningham, 1998) and do not focus on the language that promotes or limits the interaction.

A small body of research into collaborative learning using computer technology, which does examine how language constructs meaning, draws on rhetorical theories (e.g. Faigley, 1992), theories of literacy practices (Street, 1984), and sociolinguistic views of language (e.g. Halliday, 1994; Martin, 1992a), in which language is viewed as a form of social action and as semiosis. Some of these studies in this small body of research consider the interface between writing in pedagogic computer conferences and conventional academic writing as manifestations of literacy practices and rhetorical positioning (e.g. Goodfellow et al., 2002; Lea, 2001; Morgan, 2001). So far, there is a comparatively small literature, even though both academic writing and computer-mediated discourse (CMD) are constituted by a semiosis in which relationships and meaning are constructed by the writing, so the ways in which writing is used to make meaning is critical.

1.2 Argumentation

The rationale for researching argumentation lies in its salience in academic literacy and in research that reports student difficulties in acquiring appropriate forms of argumentation (see sections 1.3 and 1.4). However, argumentation is a multi-faceted and 'ill-defined' concept (Prior, 2005:130). Therefore, the approach taken in this study will be briefly reviewed and the distinction made in the study between argumentation

and argument will be explained before discussing the academic literacy and student writing contexts of the study.

In this study, a linguistic conception of argumentation is developed. This draws on specific language patternings within a text to account for argumentation and so theorises the language system itself (see Chapter 3). This may be described as a 'situated rhetorical action' (Prior, 2005:1) model of argumentation as it accounts for the context-bound nature of the argumentation and the range of rhetorical actions that the participants take in order to make an argument.

An explanation of the distinction between argumentation and argument is necessary with the corollary that the many and different conceptions of argument and argumentation described in Chapter 2 renders simple definitions suspect. Therefore, though the distinction between argument and argumentation is explicated below, these definitions will be amplified by the discussions in Chapter 2 and 3.

The distinction made between argument and argumentation in this study is one proposed by several scholars (e.g. Andrews, 2001; Andrews, 2005; Mitchell, 1994; Riddle, 2000), and in a slightly adapted way, by Prior (2005) and Andriessen et al., (2003). Andrews (2001:34) glosses argument and argumentation as follows:

> ...argumentation is distinct from argument in that it describes the
> action and process of the phenomenon we call argument.

He offers a definition of the phenomenon 'argument' as 'a connected series of statements intended to establish a position' (Andrews, 2005:110) which is broad enough for the discussion in this chapter and does not conflict with other definitions discussed in Chapters 2 and 3. Therefore, this working definition of argument is adopted.

Argumentation in this study is understood to be the whole process of developing arguments and this includes choosing appropriate evidence and appropriate ways of making and countering propositions.

Prior (2005:130) uses the term argument(ation)[1] as a general umbrella term to refer to both argument and its concomitant argumentation. In this thesis, some of the studies referred to use the term 'argument' when they are clearly referring to both argument and argumentation, or just argumentation. Others use the term argumentation as defined here. For the sake of clarity, all discussion of argument with its concomitant argumentation, and discussion of argumentation alone, will be referred to as argumentation. Only when it is clearly argument alone that is being discussed will the term argument be used.

1.3 Academic literacy

One way of approaching academic literacy as a field of study is to view it as having two related but separate aspects. One aspect focuses on how professional academic writers create knowledge and define their academic allegiance (e.g. Bazerman, 1988; Hyland, 2000; Myers, 1990). The second aspect focuses on the writing of students, and issues surrounding the learning and teaching of academic writing (e.g. Candlin & Plum,1998; Ivanic, 1997).

Insights from an applied linguistic tradition influence both bodies of research. Though this tradition is not homogenous in its approach, it supports a view of academic writing as social actions and social processes manifested as a variety of discourses. These are theorised as enacting the purposes of the writer, the relationships with readers and with wider discourse communities, plus reflecting the exigencies of disciplinary epistemology. In the applied linguistic tradition, the social purposes and social actions which constitute the discourse are understood to be constructed by linguistic features and patterns of development in text (e.g. Biber, 1989; Martin, 1992a; Swales, 1990).

The other major tradition which provides insights into academic writing argues that writing, and literacy itself, are social practices (e.g. Barton, 1991; Lea, 1999; Street, 1984). As such, it provides an ideological frame by which to analyse writing as a socially situated discourse practice imbued with the ideologies and power relations of

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[1] Andriessen et al. (2003:6) use the same convention but in a slightly different way.

institutions that mandate the writing. Studies in this tradition incorporate some concepts from sociolinguistics and some from anthropology and so relationships between participants and cultural practices also provide data for research.

1.4   Concerns about argumentation as an aspect of academic literacy

The phenomena and practice of argument and its concomitant argumentation is considered central to academic writing and is the rhetorical feature most identified with academic essay writing (e.g. Andrews, 2001; Costello & Mitchell, 1995; Mitchell, 2000; Mitchell & Riddle, 2000). Essay-writing is the most frequent form of assessment in higher education (Dearing, 1997 Report 2:35) and therefore it follows that the ability to write argumentation is very important for success in this field. However, there is much research that attests to the difficulties students find in meeting the various requirements for argumentation. Martin (Martin, 1986; Martin & Painter, 1986; Martin & Veel, 1998; Martin, 1989) argues that lack of knowledge of the linguistic features of specific text-types restricts students' ability to write academic argumentation. Other research proposes that lack of knowledge of disciplinary norms of argumentation can impede successful writing in the disciplines (e.g. Berkenkotter & Huckin, 1995; Hewings, 1999; North, 2003). Turner (2003) argues that the western classical basis of academic argument in British universities is a source of difficulty and Lillis (2001) reports that many conventions of academic argumentation mystify some students, particularly students from minority and non-conventional backgrounds. Giltrow (2000) supports the notion of confusion and mystification as a cause of problems for students attempting to write argument in academia and ascribes this to the specific circumstances and practices of academia:

> ....'argument' in its in-between life, as a term circulating among
> the professoriate, in classrooms, and institutional corridors,
> saturated with ideologies of those places, can mystify and
> confound writers and put them at a disadvantage (Giltrow,
> 2000:129).

Students' difficulties with academic argumentation have been compounded in recent years by a widening of access to higher education that has resulted in an increase in

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'non-conventional' students (Dearing, 1997). More students now come from traditionally excluded social groups, such as linguistic and cultural minority groups and there are more part-time students. Non-conventional students have not progressed through the conventional schooling routes which in U.K. are considered to be attendance at a secondary school until Year Thirteen, taking and passing the nationally sanctioned Advanced Certificate of Education followed by full-time attendance at university. Research in Australia and U.K. suggests that students from non-conventional backgrounds are more likely to find academic literacy a problem (e.g. Reid, 1998; Northedge, 2001) and in the report, Higher Education in a Learning Society, Dearing makes the point that part-time students may need additional support and encouragement (Dearing, 1997:35).

There are similar concerns about academic literacy in students taking distance education university courses. These are very likely to be part-time students and, according to Northedge (2001), diversity is a particular feature of distance education. Age ranges are greater than those typically found in conventional university programmes and the backgrounds of students are also more diverse. It is usually the case that students in distance learning programmes come to their courses with far fewer shared bodies of knowledge than students in more conventional tertiary education contexts (Northedge, 2001). This is particularly so in the case of courses offered internationally (Lukhele, 2004). Given this diversity of background, the induction of distance learners into an academic discourse and into academic writing practices is likely to be particularly problematical. Distance adds to the problem of giving support to these students as it makes the face-to-face teaching available in university Writing and Support centres unavailable.

Given the centrality of argumentation in academic writing, the reported student difficulties in complying with the practices and conventions associated with academic argumentation, plus the specific problems of distance education students, further research is needed into argumentation itself, into ways in which students write argumentation and into possible frameworks that support this writing.

1.5 Theoretical orientation

In an investigation of argumentation it might be concluded that a framework based on notional parts of argument, as found in Toulmin (1958; 1979), or features of rationality as found in informal logic (e.g. Walton, 1998), or moves in argumentation as found in Pragma-Dialectic (Van Eemeren & Grootendorst, 1992) would be an appropriate methodology. Several factors militated against this. One was practical: locating argument moves or parts of argument across whole texts requires detailed readings of each text. This would inevitably limit the amount of data which could be analysed and consequently impede the number of student voices and hence the heterogeneity of the data analysed in the study. A more important consideration was that this kind of analysis would eliminate much of the on-line communication because some aspects, for instance, openings and closings of messages, do not immediately appear to add to the argumentation. Yet, when I read the data, these seemed an important characteristic of the students' argumentative strategies in this medium. Another aspect of the study was the very different contexts for argumentation afforded by the overtly dialogic computer-conferences and the individually written assignments, so I needed a conception of argumentation robust enough to investigate dialogic and synchronous forms of argument. For reasons developed in Chapter 2 and Chapter 3, I chose a linguistic approach to argumentation and found that this enabled me to analyse the part played by all the textual features of both the computer messages and the assignments. This linguistic approach also made it possible to analyse the contextual influences on the argumentation. A view of language in which language is conceptualised as actively symbolising the social context and social process (Halliday, 1978:3) was chosen. Hence, the analysis draws on theories derived from systemic functional linguistics and sociolinguistics.

Readings of research into literacy practices and sociolinguistics testify to the importance of including the participants' opinions and perspectives. As Forey (2002) argued about research into business communication, the participants' readings and understandings of texts may not be the same as the researchers'. Other scholars (e.g. Candlin & Plum, 1998; Myers, 1999; Prior, 1998) also promote research which takes account of participants' perceptions about their writing. Candlin recommends a methodology

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which incorporates 'participant -focussed, textual process oriented and practice-governed perspectives' as well as 'text-focussed descriptive orientation' (1998:23). Therefore, students' responses to interviews, tutor responses to student writing and in-depth or 'thick' analyses of specific students' writings are also included in the study.

1.6 Educational and learning context of the study

The most significant aspect of the educational and learning context of the study is that the course which is the focus was conducted entirely electronically on designated computer conferences, which means that the tutors and students never met face-to-face. Because this is still a less than conventional environment for learning and because this environment impinges on the design of the study, it will be helpful to discuss the main features of this environment in this introduction to the thesis. A more detailed account, together with implications for choice of data and data collection, is given in Chapter 7.

The course is an Open University distance-taught Diploma in Management (identified by the number BZX730) in which all teaching is computer-mediated and all communication is via designated FirstClass asynchronous email conferences. The course is organised into tutor-groups of approximately twenty students and computer-conferences conducted by the tutor are held for the whole group. The group is further divided into small groups of about six students for the purpose of computer-mediated small group discussion. These group discussions are conducted without the intervention of the tutor, though the tutor has access and student participation is assessed.

In addition to the computer-mediated conferences, the students learn from a range of learning resources, such as course books and videos, which are intended for individual study. These are the source of the information and business concepts on which the course is built and about which the students are requested to argue in their electronic conferences and in their assignments.

The learning patterns in this electronically offered course are organised so that students engage in four computer-mediated conferences just prior to writing conventional assessed assignments. The conferences last for about six weeks and they are followed

immediately by the students individually writing their conventional assignments for assessment on very similar topics to those discussed in the conferences. Much of the teaching occurs through the tutors' comments and responses to these assignments. This aspect of the students' learning environment is discussed in Chapter 10, where the influence of the tutors on the argumentation is considered.

The usefulness of the design of this course for the present study is the link between the content and activities of the computer-mediated discussions and the individually written assignments. Details are provided in Chapter 7 and in Appendix 1 about the topics set for the students in both the multiparty on-line discussions and the assignments. It is argued in Chapter 7 that the topics and the questions in the conference discussions and assignments are similar enough to make a comparison of the argumentation feasible. Another useful aspect of the course is that most of the teaching about writing and argumentation is available for analysis. The tutors' comments on student assignments are available together with their contributions to the computer-mediated conferences. These are analysed in Chapter 10.

The design of the learning environment has implications for the selection of data for the study, and this is addressed in Chapter 7.

There are also issues about how individual students respond to the pedagogic intentions of the designers of the course. How individual students responded to this combination of on-line discussion and conventional assignment writing and how far individual students engaged interactively in the collaboration has implications for the argumentation they produced. The questions about individual students' participation and its influence on their argumentation are investigated in Chapter 10.

1.7   Conclusion and Questions

This Introduction has provided a framework in which to situate the study and a rationale for the study. There are developments in pedagogy and research that prompt the study and these are:

- the emergence of technologies which have the potential to promote collaborative learning;
- the adoption of this form of learning in universities and the possibilities for reasoning and argumentation that this style of learning engenders;
- the developing understanding of academic written argumentation;
- the developing understanding of students' difficulties in writing academic argumentation particularly in distance education.

The opportunities for argumentation afforded by the new technologies need to be investigated to find out the kinds of argumentation produced in this environment. Their potential to enhance students' experience of argumentation in an academic context also needs investigation. How students engage in argumentation in computer-mediated conferences needs research as it may provide a support for the students' development of academic and disciplinary forms of argumentation. The similarities and differences in the argumentation in the computer-mediated environment and in the conventional assignments needs to be investigated so that the amount of adjustment students have to make in their argumentation, and the nature of that adjustment, can be assessed. This will aid the development of pedagogy in academic literacy. The students' attitudes towards this use of computer-conferences and conventional writing and the kind of relationship they find between their argumentation in the computer conferences and in their argumentation in their assignments also needs investigating as this will also inform argument and academic literacy research.

These considerations lead to the following questions:

- What features of argumentation are found in each context for argumentation, the computer-mediated conferences and the individually written assignments?
- In what ways do students engage in argumentation in these two contexts?
- What are the students' attitudes to the argumentation in each context and what relationship do they perceive between the argumentation in the CMD and the argumentation in their assignments?

1.8 Structure of the Study

The remainder of this thesis is structured as follows:

Chapter 2: Traditions of argumentation

This chapter reviews several traditions of research into argumentation and argues for a view of argumentation as dialogic and reflective of the sociocultural values of the participants.

Chapter 3: Linguistic approaches to argumentation

This chapter develops a linguistic approach to argumentation, primarily based on systemic functional linguistics, although other approaches also contribute to the discussion.

Chapter 4: The language of computer-mediated discourse

Research into computer-mediated discourse from several traditions is reviewed from the point of view of how this might influence the students' argumentation in this medium.

Chapter 5: Arguing and learning in CMD

Studies are reviewed that investigate the relationship between learning and argumentation in the medium of CMD, and the relationship between CMD and conventional assignment writing.

Chapter 6: Theme in argumentation

This chapter reviews the body of research on Theme, focusing on systemic functional approaches. I support the choice of a specific conception of Theme as one that is divided into two functional components and argue that this conception will reveal types of argumentation in the corpus.

Chapter 7: Design of the study.

The conception of argumentation operationalised in the study is outlined. The influence of the organisation of the course, Diploma in Management Studies, on the selection of

data is discussed and the criteria for selection of data and compilation of the two corpora are explained.

Chapter 8: Theme in the present study

The configuration of Theme used in the analysis is defined.

Chapter 9: Results and discussion of the Theme analysis

The results are presented and the implications for argumentation in the two corpora are discussed.

Chapter 10: Personal and institutional influences on the argumentation of individual students

This chapter investigates the various possible influences on the students' argumentation. The influence of the course rubric, the tutors, and the attitudes of the individual students are investigated. Qualitative research methodology is applied, using interviews with twelve students. A further small case study is conducted in which the results of five students' interviews are assessed, together with a Theme analysis of their individual writing. The chapter discusses the implications of the results for an understanding of students' attitudes to argumentation and their experiences of writing argumentation in two contexts.

Chapter 11 Conclusion

The conclusion to the thesis assesses the significance of the Theme analysis for understanding the contextual influences on the argumentation and the implications of these findings for teaching and learning argumentation. The potential of Theme analysis as a research methodology for researching argumentation is evaluated, and the limitations of this method are discussed. The implications of the results of the analysis of the students' interviews, document analysis and the analysis of the writing of individual students, as reported in Chapter 10, are discussed. The effectiveness of these qualitative methodologies is assessed. The contribution of the findings in the study to research into argumentation in higher education is evaluated, together with the use of computer conferences in the teaching and learning of academic writing.

2 Traditions of Argumentation

2.1 Introduction

Given the many perspectives on the nature and function of argumentation, a unified view is not attempted in this Chapter. The distinction between argument and argumentation developed in section 1.2 is used in investigating views of argumentation as dialogic, dialectic, normative, contingent and as social modes of thinking. These are assessed for what they can contribute to understanding the argumentation examined in the present study. Dialogic and dialectic perspectives on argumentation are found to be useful, as are conceptions of argumentation as socioculturally situated discourse rather than moves in an argument structure. Conversely, normative approaches to argumentation are considered to be restrictive. The chapter concludes by arguing that none of these traditions provide a complete enough account of argumentation and proposes that a linguistic approach should be considered.

Theories of what argumentation is and the function it plays in society are manifold and all focus a different lens on argumentation. From one perspective argumentation is an intrinsic part of human consciousness (e.g. Bakhtin, 1981, 1984, 1986; Billig, 1996). From another perspective it is a cognitive process in which forms of rationality are called into play (e.g. Andriessen & Coirier, 1999; Bereiter & Scardamalia, 1987; Toulmin, 1958; Toulmin et al., 1979; Van Eemeren et al., 1997; Walton, 1989). Argumentation is considered to be socially and culturally generated forms of discourse specified as genres (e.g. Hodge & Kress, 1988; Martin, 1992a; Martin, 1989; Swales, 1990) and a range of discourses specific to the literacy practices of identifiable communities and disciplines (e.g. Barton, 1991; Bazerman, 1988;). Furthermore, the dialectic aspect of argument is harnessed to the purpose of learning (e.g. Andriessen et al., 2003; Wegerif & Mercer, 1996; Wertsch, 1991).

2.2 Argumentation as dialogic and situated in social life

Many of the different traditions described above conceive of argumentation as being composed of two or more points of view representing different 'voices' in a dispute. Billig (1996) characterizes the thought processes of humans as dialogic argumentation and argues that thinking itself embodies dialogic structures of argument. He draws on Aristotelian notions (see Tredennick & Forster, 1966) of rhetoric and dialectic dispute to argue that a point of view is inevitably situated in disagreement with another point of view. According to Billig, the opinions people hold are not individualistic and separate from the beliefs of the rest of society but are stances in public controversy. In the process of developing a stance, people engage with other opinions held in society, and thus enter into an internal dialectic. Their views about the world are therefore built up as they are argued for. Billig acknowledges that his views bear similarity to the earlier writings of Bakhtin, but Billig does not develop the part played by language in his internal dialectic.

Bakhtin's theories of dialogism, heteroglossia and evaluative accent emphasise the inherently dialogic nature of language and this relates to an understanding of argumentation. A Bakhtinian view of dialogism is that all utterances are responsive towards past, present and future utterances and all rhetorical forms are oriented toward the listener and his or her answer (Bakhtin, 1981:280). Hence, rather in the way that Billig conceives of human thought processes, even seemingly monologic language is dialogic. Closely associated with the notion of dialogism is heteroglossia, which assumes that communication occurs within a context of multiple world views signalled by genres and social languages. These pervade individual speech and lead to a multiplicity of voices in discourse, militating against a monologic view of language. Within the framework of heteroglossia, every 'voice' constructs an evaluative stance towards other 'voices' and so there is no neutral utterance. The speaker's evaluative attitude toward the subject of his speech also determines the choices of lexical, grammatical and compositional means of utterance (Bakhtin, 1986:84). Therefore, Bakhtin characterises all utterance, and hence argumentative utterance, as both evaluative and implicitly dialogic and completely infused with the ideology of the society in which they are composed.

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2.3 Argumentation as a dialectical and normative process.

A different tradition of argument studies also now embraces argumentation as intrinsically dialogic. In this field, there occurred a turn from the monologic tradition to a dialogic understanding of argumentation (see Johnson, 1996). This was in response to a rejection of deductive logic as a suitable model of argument in real life situations. Deductive logic was criticised for its specific and narrow definitions of validity that modelled argument as a monologic procedure based on a series of deductions. Modern thought in informal logic aims to provide a way of assessing the validity and the processes of real arguments that occur in real world situations. Informal logic draws, like Billig, on Aristotelian notions of the dialectic, and hence considers that argumentation involves two points of view and is intrinsically dialogic (Johnson et al., 1991). One of the results in this development is that the definition of argument has broadened from being regarded as a set of propositions to a move made in a dialogue in which two parties are trying to reason together (Walton, 1999).

Both the New Dialectic school (Walton, 1998) and the Pragma Dialectic school (Van Eemeren & Grootendorst, 1984) view argumentation as a dialectic process in which people argue to reach agreement in a variety of encounters in everyday life. Walton's (1999) view of dialectic engagement is that it occurs in critical dialogues between two parties, in which both parties take opposing points of view, but reason together and ideally reach agreement. Though Walton eschews judgements of argumentation based on pure logic and assesses the burden of proof to depend on the context in which the argument takes place, it is the logician who decides that an engagement between two people is in fact an argument. Walton argues that the influence of context on argumentation is that:

> A commercial speech from an advertisement has to be evaluated
> differently than an argument used in a political debate or in a
> philosophical discussion because the purpose of the argument is
> different, as are the methods used to achieve that purpose.
> (Walton, 1998:276)

This notion of context is similar to Toulmin's (1958; 1979) notion of contingency, discussed later, and hence is limited to rather broad descriptions of typical happenings. These take little account of relations of status, power or ideology between the participants.

Walton proposes six normative models of dialogue typical of educational argumentation, each with characteristic standards of reasoning:

Table 1: Walton's Dialogue Types

Type of dialogue	Initial situation	Participant's goals	Goal of dialogue
Persuasion	Conflict of opinion	Persuade other party	Resolve or clarify issue.
Inquiry	Need to have proof	Find and verify evidence	Prove (disprove) hypothesis
Information seeking	Need information	Acquire or give information	Exchange information
Deliberation	Dilemma or practical choice	Co-ordinate goals and actions	Decide best available course of action
Eristic	Personal conflict	Verbally hit out at opponent	Reveal deeper basis of conflict
Negotiation	Conflict of interests	Get what you most want	Reasonable settlement that both can live with

(Walton, 1999:3)

These engagements are defined by compliance with specific procedures identified, not by the participants, nor from natural language, but by the logician. Walton describes the instances of argumentation as follows.

> Every dialogue starts from an initial situation (initial position) and, according to the rules of procedure agreed to by the participants, moves from the initial position through a sequence of moves toward the goal or outcome. (Walton, 1998:248)

The logician decides what part of an exchange comprises the initial situation and what comprises the following sequences. Different types of dialogue use different argumentation techniques and the overall argument is assessed by how far argumentation is being used reasonably, that is 'contributing to the goal of the type of discourse which the argument is supposed to be part of' (1998:249). It is the logician who assesses how moves in the argument fulfil notions of reasonableness. In this way, New Dialectic theories of argument are normative.

Pragma Dialectics also proposes a view of argument in which two parties ideally strive to resolve difference (Van Eemeren et al., 1993:30), and draws on Gricean maxims (Grice, 1975) and Searlean speech act conditions (Searle, 1969) in the analysis of the moves in the argumentation. This theory

> ...views argumentative discourse as an exchange of verbal moves
> ideally intended to resolve a difference of opinion. The dialectic
> angle of the theory is manifested in the maintenance of critical
> standards of reasonableness, the pragmatic angle in the definition
> of all argumentative moves as speech acts functioning in a context
> of disagreement. (Van Eemeren & Hootlosser, 1999:480)

Van Eemeren and Hootlosser define the dialectic aspect of argumentation in terms of four stages, crucial to 'establishing systematically whether the stand-point advanced by the protagonist of a viewpoint is defensible against doubt or criticism of an antagonist'. This argumentation 'is measured against a certain standard of reasonableness' (Van Eemeren & Grootendorst, 1992:4). Van Eemeren describes the system as based on notions of an ideal.

> The system presumes ideal participants in ideal conditions. (Van
> Eemeren et al., 1993:30)

Pragma Dialectics, therefore, also proposes ideals of argumentation and takes a normative view of argumentation, in which exchanges between participants have to comply with specific standards.

The view of argumentation proposed by Walton, Van Eemeren and Grootendorst is not a synchronous one in which an argument is built monologically by logically connected

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statements. As demonstrated by Walton's Dialogue Types (Table 1), it is one in which many forms of human interaction are considered to be argumentation. This wider view of argumentation is useful to the present study. The computer-mediated conferences involve the students in many forms of engagement that could be considered, according to the views of these scholars, as argumentation. The other useful view of argumentation offered so far in this discussion is that it is a form of dialectic.

The relevance of dialectic lies in the interest that educationalists have taken in it as a form of learning. The notion of the dialectic is one commonly used to account for learning in collaborative groups (e.g. Baker, 2003:48; Bereiter & Scardamalia, 1987; McConnell, 1994).

One school of educational studies focuses on a Pragma Dialectic notion of argumentation in order to explain how students learn in small group discussions. This theory conceives of learning as a type of dialogical or dialectical argumentative process that is associated with collaborative meaning-making. Within the collaborative learning situation

> ...the interpersonal and interactive pressures imposed by the
> necessity to deal with conflicting points of view are particularly
> conducive to collaborative sense making. (Baker, 2003:48)

This body of theory proposes that a dialogic or dialectical game is played and this accounts for the learning in collaborative problem solving groups (Baker, 2003:48). The pressures imposed by exposure to other points of view leads to cognitive conflict, hence this body of theory is called social conflict theory. In the context of social conflict theory, the conflict is analysed as a form of dialectic, drawing on notions of informal logic in which argumentation is modelled on a framework of proponent and antagonist. Social conflict theory claims that it is in the assuming of these roles, and exposure to different points of view in the argumentation, that learning occurs (Baker, 2003:50).

Other views about the place of the dialectic in learning are less focused on a conflict model of learning. Scardamalia and Bereiter describe the use of the dialectic process in collaborative learning as occurring when

> ...conversational partners, holding different opinions, strive to reach a mutually agreeable position and in the process advance beyond the level of understanding that either partner possessed at the beginning. (Scardamalia & Bereiter, 1994:297)

This more generalised view of the relationship between argumentation and learning eschews the role of cognitive conflict. However, the implication is that there is a dialectic process at play when students engage in discussion in order to learn. Another implication is that when students are successfully learning collaboratively, they are inevitably involved in argumentation.

Theories of argumentation developed from informal logical and Pragma Dialectic models, therefore, offer useful insights into the kinds of activities in which the students are engaged in the present study. In spite of their usefulness, however, these models have drawbacks. The first is the methodology used for reconstituting the argumentation before analysis. The second is that when these studies apply normative assessments, this inevitably means that universalistic ideal notions of argumentation are used in the assessment. This contradicts findings to be discussed in Chapter 3.

Models such as Walton's New Dialectics and Pragma Dialectics are criticised for being ideologically and culturally universalistic. Wales (1999) points to the practice in Pragma Dialectics of dialectic transformations of natural language in the application of Pragma Dialectic principles. In order to assess whether the normative standards of argumentation have been met, the pragma dialectician prepares transcripts of real life interactions between people for analysis. In this process, substitution, addition and permutation are applied to the language, and it is reconstructed as moves in an argument structure. Wales argues that the ideology and culture of the analyst influences the reconstruction and questions the basis on which judgements about the argumentation can be made. She suggests this favours 'an elite discourse' (1999:5).

Another criticism is directed to the cognitive conflict theories of learning based on the notion of a dialectic. As exemplified by cognitive conflict theories, the argument structure utilised by dialectic theories of argumentation assumes that participants take up a protagonist and an antagonist position in the argument. Since these theories assume that there is a basic conflict built into the argumentation, they have been criticised by researchers who have found that the argumentation of students in small groups does not follow a conflict pattern. If the dialectic understanding of argumentation is adopted, then engagements between students that do not follow a pattern of conflicting claims cannot be considered as argumentation. Smithson and Diaz (1996) argue that this 'limits the picture of what is going on in a discussion' (Smithson & Diaz, 1996:252). In their analysis of student collaborative groups, they found that a common 'voice' is achieved which they distinguish from the Hegelian notion of synthesis:

> ...the positions themselves are jointly constructed, in the process
> of argumentation, and a single collective voice is produced
> through the interaction. (Smithson & Diaz, 1996:266)

This suggests a very different view of argumentation in group collaboration and one which is more applicable to the on-line collaboration found in this study. This view is given support by the findings of Mercer and colleagues (e.g.1995; 1996; 2000; 1999) and Wegerif and colleagues (e.g. 1996; 1997; 1999) who depict argumentation as social modes of thinking and define it by collaborative rational behaviour rather than cognitive conflict.

2.4 Argumentation as social modes of thinking

Mercer and Wegerif propose a view of argumentation that is situated in the social context from which it emerges and that occurs 'when the communicative action becomes reflective' (Wegerif, 1997:18). Mercer (2000) typifies this discourse as one in which argumentation is construed using rhetoric generated by social and contextual aspects of the situation in which it occurs. In this way, it differs from argumentation theories discussed above. Based on empirical studies of school children talking in collaborative groups, Wegerif and Mercer develop a three part typification of talk in

which one typification leads to argumentation that is productive for learning. The types of talk are: disputational talk, cumulative talk and exploratory talk. Disputational talk is characterised by disagreement and individualised decision-making; cumulative talk builds positively on what others say and is characterised by repetitions, confirmations and elaboration. Exploratory talk is characterised by partners engaging critically with others' ideas. The characteristics of this type of talk are that challenges and counter-challenges occur, but the bases of these are made public. Hence, knowledge is made explicit and reasoning becomes publicly accountable (Wegerif, 1997:18). Therefore, judgement is suspended for argumentation to take place.

> In exploratory talk, the instant 'yes' of acceptance and the instant
> 'no' of self-defence are both suspended and a dialogue between
> difference is inaugurated. (Wegerif, 1997:19)

The dialogue about difference produces the argumentation but, unlike informal logical assessments, the argumentation is not conceived as a series of moves, but understood to draw on the rhetoric engendered by the context of everyday life (Mercer, 2000:73). Wegerif's assessment of this type of talk is that it is a discourse that results in situated collaborative reasoning. He bases this on Habermas's concepts of communicative rationality (Habermas, 1984) which, Habermas argues, links argumentation and learning:

> Argumentation plays an important role in learning processes as
> well. Thus we call a person rational who, in the cognitive
> instrumental sphere, expresses reasonable opinions and acts
> efficiently; but this rationality remains accidental if it is not
> coupled with the ability to learn from mistakes, from the
> refutation of hypotheses and from the failure of intervention.
> (Habermas 1987 in Andrews, 1995:iv)

According to Wegerif, the success of Exploratory talk in engendering shared reasoning is that it meets these ideal standards of rationality proposed by Habermas (1987:322 in Wegerif 1997:16). These conditions draw upon notions of reasonable behaviour which Wegerif calls 'ideal universal ground rules for rationality' (1997:17). In this way, the view of argumentation proposed by Mercer and Wegerif is, like others already discussed, normative, and Wegerif emphasises

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The ground rules for this type of talk allow for challenges and disagreement but these are contained within a cooperative social framework which is actively maintained. (1997:19)

Wegerif acknowledges that this view of argumentation can be criticised as universalistic. Though he repudiates this claim, he does acknowledge that different discourse communities have their own conventionalisation of reasoning and assessment of truth. For example, he refers to Australian genre theories which propose that children should be taught genres which embody these conventionalisations of reasoning within different subject areas (e.g. Christie, 1999; Martin, 1986). He argues, however, that children need to be taught first to reason before applying specific criteria (Wegerif & Mercer, 1996:49). Other research discussed in this chapter, and in Chapter 3, would argue that the conventions surrounding reasoning and the basis of the epistemology within school-based argumentation are an essential aspect of that argumentation. Further, at an adult level of education, it is not productive to separate the reasoning from the ensuing conventionalised forms of argumentation.

Exploratory talk does, however, offer much to a view of argumentation useful in the present study. It presents a view of argumentation as spoken socioculturally situated discourse rather than a series of moves 'reconstructed' from natural dialogue. So far, research on Exploratory talk has focused on spoken argumentation so it does not offer an analysis of written argumentation and this dimension is necessary for the present study.

2.5 Rational and cognitive models of written argument

Studies discussed in this section emphasise the production of written argumentation as an individual cognitive activity in which writers learn to develop cognitive discourse schema for writing different kinds of text. These studies are discussed because they have been so influential in exploring writing in higher education. They offer a view of written argumentation as a dialogue between reader and writer that is useful to this study. It will be argued, however, that their focus on individual cognition limits the ability of these views to explain social and cultural aspects of argumentation.

Bereiter and Scardamalia define a discourse schema as:

> ...knowledge of a selected literary form (such as narrative or argument), which specifies the kind of elements to be included in the discourse and something about their arrangement. (Bereiter & Scardamalia, 1987:7)

Bereiter and Scardamalia identify the challenge of writing argument as a dialectical one in which the writer has to 'produce discourse without a conversational partner' (1987:xiv). They reason that the schema of argumentation with which inexperienced writers are most familiar is the dialogic one of conversation. In this model, the other participant provides the opposing point of view. They, therefore, argue that the difficulties of inexperienced writers are those associated with rhetorical and cognitive management. The inexperienced writers have to develop their own argumentation and incorporate counter-arguments into their written text. Coirier & Andriessen (2000) in Andriessen, Erkens et al. (2003) support this view of written argumentation, likening the writing of argumentative text as 'virtual negotiation', thus developing the notion of argumentative text as being an interactive one in which writers have to persuade another 'voice': the reader. Coirier & Andriessen explain this process as follows:

> The ultimate criteria for the success of an argumentative text is the acceptance by the addressee of the main position. Hence, one important difference of argumentative text production in comparison with the production of other types of texts (narratives, expositions, etc) is that a writer more explicitly has to deal with the addressee. Because of the important role of the addressee in argumentation, even the situation of individual text production can be seen as virtual negotiation... Much more than any other type of text, elaborated argumentation is a 'potential dialogue': the issue is not primarily shared knowledge, but shared opinions and values; providing not information as such but acceptable reasons. (Coirier & Andriessen 2000 in Andriessen, Erkens et al., 2003:81)

Based on this dialogic notion of written argumentation, these writers argue that problems specifically associated with written argumentative text production concern the

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articulation between planning and writing. They claim that writers require the linguistic ability to linearize a complex conceptual representation. Less competent writers use a 'what next' temporal rhetorical plan. This is a way of recounting events that requires little hierarchical re-ordering. Bereiter and Scardamalia (1987) termed this 'what-next' strategy knowledge retelling and found that this was the rhetorical strategy adopted by young writers. Wilkinson (1990) also notes that a narrative temporal organisation in writing seemed to pose fewer problems than a non-temporal organisation of the text. Bereiter and Scardamalia suggest that competent writers engage in knowledge transforming activities to produce non-temporal forms. These cognitive processes involve complex planning and rhetorical choices. This leads to a text that is no longer an account of other people's ideas but an argument reflecting the ideas of the writer. In research that applies sociocognitive theories to writing, Hayes and Flower (1980) report that expert writers bring more complex planning and drafting behaviours to argument writing tasks. They also report that expert writers spend much more time designing their texts to meet the needs of their audience. Freedman and Pringle (1984) link the ability to write argumentation to Vygotskyan (Vygotsky, 1978) theories of concept formation, in which young people move from thinking in less organised and abstract 'complexes' to forming 'true concepts.' This ability, Freedman and Pringle argue, is necessary to produce a unified and logically structured piece of persuasive discourse (Freedman & Pringle, 1984:79). They further argue that the difficulties experienced by the cognitive demands of organizing hierarchies of argumentation are not confined to young people. Such difficulties are a characteristic of inexperienced adult writers. Crowhurst and Piché (1978) give further support to the salience of cognitive organisation in writing argument when they note that the ability to write argumentation is associated with the ability to use logical conjunctions.

These views of written argumentation, therefore, characterise it as dialogic and the product of complex cognitive activity in which planning and cognitive organisation is prioritised. Linguistic structures that make possible the hierarchical organisation are not identified and subject specific forms of argumentation are not discussed. Much of the research was developed from texts which were specifically written for the purposes of the specific studies. Participants were given a prompt or question to discuss and the writing task was therefore not situated in actual subject disciplinary writing nor related

to specific genre. Differentiation between contexts and purposes does not seem to be salient to these views of argumentative writing. In this way, the notion of argument schema is as universalistic as the normative models of argumentation discussed earlier and therefore these views are less able to account for the contingent nature of argumentation.

However, these theoretical approaches do add to an understanding of argumentation as it relates to this study. They conceptualise argument as a form of discourse and they address the relationship between multi-party argumentation and individual written argumentation. The latter they characterise as a different but related argument schema and describe the schema for written argumentation as one which attempts to instantiate two or more points of view. Thus, addresser and addressee relationships are considered salient in composing argumentation.

2.6 Argumentation as contingent

Other views of written argumentation recognise that the validity of arguments and the associated argumentation is contingent. Toulmin (1958) and Toulmin, Rieke and Janik (1979) developed a theory of the role of contingency in argumentation theory in which the success of the argumentation depends on the values and beliefs of the field in which the argument is made. Though he proposes the existence of a deep structure which is common to all arguments (1979:25), Toulmin identifies disciplines by epistemological considerations, each characterised by its body of concepts, methods and fundamental aims. These considerations are absent from the research discussed above. He takes the notion of contingency and develops an evaluative standard of everyday argument that posits relationships between five parts of an argument procedure: claim, grounds/data, warrant, backing and rebuttal. According to Toulmin, arguments succeed when the warrant that gives validity to the claim is grounded in knowledge of a given field. The contingency lies in the kind of warrants that license the move from data to claim. This notion of contingency is epistemological, and he presents fields such as law or business as characterised by a distinct body of concepts, methods and fundamental aims. Thus, learning how to argue in a specific field is contingent on understanding the basis for the epistemology:

The professional training involved in learning how to operate in any rational enterprise consists in learning how to recognize what kinds of information will serve as relevant supporting facts in making a case for one or other specific claim. (Toulmin et al., 1979:34)

As an instance of this, he states that reasoning in business is focused on two central types of reasoning: decision-making and policy justification (1979:286). The critical task for a manager is to make claims involving reliable projections into the future and these are strategy claims. Grounds are presented in quantitative form and 'warrants and backing are often implied' (1979:59). This is in comparison with the epistemology of academic argument where it is important to articulate warrants for claims to be accepted. Toulmin, then, offers a view of argumentation in which a core argumentative structure composed of logical relations between semantic 'parts' of argument combines with what he argues are epistemological standards in disciplines and professions. This model is normative in so far as the argumentation is assessed by how far it meets the standards defined by the model.

Though Toulmin has been very influential in pedagogy, where his model is used as a heuristic for the teaching of written argumentation (e.g. Fulkerson, 1996; Mitchell & Andrews, 2000; Riddle, 2000), it is criticised as too abstract and prescriptive. It is argued that it contributes little to argument as this happens in real life (Van Eemeren & Grootendorst, 1992:4). Though the model claims to make the notion of contingency central to the assessment of the argumentation, Toulmin's notion of contingency over-privileges a homogeneity of purpose in which the specificities of particular contexts are not taken into account. It is also argued that the model provides little account of variation in communicative purpose and addresser-addressee relationships (Swales, 1990). A further criticism can be made. Toulmin's model, because it provides a view of argumentation as rational moves, does not provide a dialogic account of argumentation.

Riddle and Mitchell (2000) offer an argument scheme which they claim avoids the abstraction and prescription of Toulmin's and Toulmin et al.'s (1958; 1984) models. They claim that it enables students to respond to disciplinary requirements and is

appropriate in a constructivist approach to learning. They acknowledge the weight of disciplinarity factors on the production of argumentation, but Mitchell argues that it is possible to pare down argument to 'a deep structure common across all subjects' (Mitchell & Riddle, 2000:28). In response to this, they have developed a model as an instructional tool, based on Leech's (1981) notion of logical operators in language. The model uses 'everyday language' words such as *then, since, because* and *though* based on both their congruent meanings as connectives in language and on iconic meanings as operators in an argument (Riddle, 2000:36).

Providing university students with a logical framework on which to build argument may well be useful as research already cited (see 2.5) suggests that inexperienced writers may find this a problem. Other authorities express concern that models of argument in general do not help students to write appropriate argumentation. Scott (1999) is concerned that Riddle et al.'s model of argumentation emphasises text-types or formulaic approaches to argumentation. She suggests this is reductionist and, as such, disables the student from participating in individual meaning making. Other authorities are concerned that models such as those above present a narrow view of argumentation and do not address students' problems with writing argument. Flower argues that

> ...if argument is understood as a social cognitive process, then
> argument cannot be reduced to familiar textual forms such as pro
> and con arguments or thesis and support. (Flower, 1995:(i))

Based on the discussion above, I consider that Toulmin and post-Toulmin models are not able to offer a full enough account of argumentation for the analysis of adults engaging in argumentation in two media.

2.7 Conclusion

It would seem that none of the views of argumentation so far reviewed offer a way of understanding how students argue in their multi-party, computer-mediated discussion and in their single-authored assignments. In spite of this, much of the research reviewed does offer useful perspectives that are relevant to the present study. The literature

reviewed in this chapter shows that the notion of the dialectic has been broadened from its Aristotelian and classical origins to include many different forms of human interaction involving argumentation. This suggests that many of the different ways in which students engage with each other in the computer-mediated discussions will involve argumentation. Other argument studies discussed in the review also establish that argumentation is dialogic rather than monologic. Though this may appear obvious in the on-line engagements, it was argued above that authorities such as Toulmin and Mitchell and Riddle do not present written argumentation as dialogic. This limits the use of these models in this study. In contrast, the 'virtual negotiation' models of written argumentation offer a conceptual structure that is useful. These models view written argumentation as a virtual negotiation between addressee and addressor and, hence, focus on the dialogic nature of written argumentation. The notion that both multiparty and individual written argumentation enact a dialogic interaction between two points of view provides a commonality between the computer-mediated argumentation and the assignments in the study. It may well be possible to investigate the degrees of dialogicality in both media and investigate how students adapt their argumentation from the actual dialogic situation to the 'virtual' dialogic situation.

Another thread running through the discussion is the connection between argumentation and learning. This has two aspects. Some of the reviewed studies focus on how individual students learn to write argumentation and I proposed that the focus on individual cognitive schemas fails to take account of the social and cultural aspects of argumentation. I also identified the developmental approach of many of the studies discussed as inappropriate to the present study, which investigates adult writing. Toulminian approaches, though acknowledging the deep structure that underlies argumentation, are also considered to provide a limited view that does not encompass dialogic forms.

The other connection between argumentation and learning discussed in this chapter is that found in collaborative groups. The studies reviewed seem to agree that argumentation promotes learning and learning in collaborative groups results in argumentation. Though two views of this process emerged from the studies discussed, the notion of argument as cognitive conflict was found to be problematic. This view

depends on a notion of argumentation as moves made in an argument by a protagonist and antagonist. This might be a limiting view of argumentation in the present study because a cognitive conflict view takes no account of sociocultural factors but conceives of argumentation and learning as individualistic. The other view of argumentation reviewed is that argumentation is socioculturally situated discourse. This seems to provide an account of argumentation that reflects the influence of social and cultural factors, but the research reviewed is limited to spoken forms. Chapter 3 will present research to support a sociocultural view of argumentation and also provide evidence that this understanding can also be applied to written argumentation. Chapter 3 also provides a more searching analysis of the relationship between the argumentation and the social context. By analysing the actual 'wordings' in the form of linguistic structures, this research suggests that ideological, cultural, social and interpersonal conventions shape the kinds of claims that can be made and the way in which they are made.

3 A Linguistic Approach to Argumentation

Most of the research discussed in this chapter draws on specific language patternings within a text to explain how argumentation is constructed and so theorises the language system itself. This is in contrast to research already discussed. Much of that research uses the text as evidence for categories of logical relationships and as evidence for normative assessments of argumentation. The discussion in this chapter does, however, also refer in the final section to theories of situated practice, in which language is used as evidence of literacy events and practices. In this latter tradition, the focus of the research is the practices employed by writers of argumentation rather than language structures. Both these traditions of research support sociolinguistic views of argumentation.

3.1 Linguistic views of argumentation

Linguistic analysis suggests that argumentation in academia is constrained by ideological influences from the institution (e.g. Fairclough, 1989; Iedema, 1998; Kress, 1986) and by the epistemology of the subject and, furthermore, is centred on participant relations (e.g. Candlin, 1998; Hyland, 1999; Myers, 1990; Thetela, 1995; Thompson & Thetela, 1995). Much of the analysis in all these categories is based on Systemic Functional Linguistics (S.F.L.) (Halliday, 1985a, 1994) and uses language patterns as evidence for its claims. S.F.L. proposes a social semiotic view of language in which language is conceptualised as 'a range of possibilities, an open-ended set of options in behaviour that are made available to the individual as social man' (Halliday, 1973:49). Based on this, S.F.L. posits a systematic relationship between context (as human behaviour and physical conditions) and language choice. This relationship is enacted semiotically by the organisation of language into three metafunctions: the ideational metafunction, the interpersonal metafunction and the textual metafunction.

- The ideational metafunction is language used to express our perceptions of the world and convey a picture of reality, including the reality of the inner world of our consciousness. It can be classified into two sub-functions, the experiential

and the logical (Halliday, 1994:179). The experiential is largely concerned with content or ideas while the logical is concerned with relationships between ideas.

- The interpersonal metafunction is language used to interact with other people and establish relationships with them. It is used to take on roles, and express feelings and attitudes.

- The textual metafunction is language used to organise our messages and relate what is said or written to other linguistic events and the wider context.

The relevance of metafunctions to an understanding of argumentation lies in the relation between metafunctions and register. Metafunctions are realised in language as wordings, through the lexicogrammar (words and grammatical structures). Register is a semantic theory of the relationship between the more abstract notion of the context of a communicative situation in which meanings are made. Components of register are field, tenor and mode and these are variations found in language according to the context. Halliday defines these variations as follows

> These [field, tenor, mode] represent in systematic form the type of
> activity in which the text has significant function (field), the status
> and role relationships involved (tenor) and the symbolic mode and
> rhetorical channels that are adopted. (Halliday, 1978:122)

In this conception of register, the content and area of interest of what is being communicated is the field. The kinds of relations being established between the reader and writer,[2] and the relationship to the wider community, constitute the tenor. The way in which the communication is made, for instance, whether by speech or writing, by telephone or email, and the relationship of the medium to the wider context, is the mode. Halliday's reference to rhetorical channels has not been developed in more recent writing.

The register variable of field is usually realised as the ideational metafunction in the form of wordings or lexicogrammar. Likewise, for the other correspondences, tenor is

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[2] I am using reader and writer as a short-hand term that also includes speakers and listeners because the study examines written language.

realised through the interpersonal metafunction and mode largely through the textual metafunction, though the other metafunctions can also be involved in realising mode.

Speakers are constrained by the context of situation in their choice of language and this constraint occurs in a systematic way. Similarly, choice of language systematically constrains the context of situation. It follows from this that language is constitutive of social situations and social situations constitute language through speakers' choices. The concept of register, therefore, seems to be, as Hunston writes

> ...a useful heuristic tool for examining the ways in which text-producing situations may incorporate both similarities and differences. (Hunston, 1989:73)

The relationship between context of situation and the wordings used by speakers has implications for a notion of argumentation. It makes possible a way of enlarging the notion of argumentation from the logical, philosophical and cognitively individualistic notions discussed in Chapter 2, to include social and ideological influences that shape and constrain the kinds of argumentation open to the participants. In this context, ideology is the beliefs and values, that is, the value system subscribed to by the participants in the discourse. The social influences include the kinds of participant relations that the context of situation makes possible.

In this chapter, I draw on S.F.L. register theory and language metafunctions to examine linguistic patternings which construe argumentation. I review research that links these linguistic structures with contextual factors and, hence, develop a view of argumentation in which argument is shaped by context.

Before exploring this influence further, it is necessary to take a brief detour to discuss the notion of genre because, though the concept of genre does not play a part in the analysis, the term genre is used in the discussion of literature and the meaning of this term is contested.

Australian genre theorists working within the S.F.L. tradition propose that a further contextual dimension, the context of culture, which is wider than the context of

situation, shapes the register by influencing choices of field, tenor and mode. This locates the text within a culture and the social processes of that culture are realised as a genre (e.g. Eggins & Martin, 1997; Martin, 2001; Martin & Rothery, 1981). Analysis of genre in this tradition involves

> ...making explicit just which combinations of field, tenor and mode variables a culture enables, and how these are mapped out as staged, goal-oriented social processes. (Eggins & Martin, 1997:243)

Another view of genre is that proposed by Biber (1988; 1989) who makes a distinction between genre and text-type in which genres are classified by external criteria as

> [T]he text categories readily distinguished by mature speakers of a language: for example the genres of English include novels, newspaper articles, editorials. (Biber, 1989:6)

He argues that 'genre distinctions do not adequately represent the underlying text types of English' (ibid:6), which he classifies by the internal criteria of groupings of co-occurring linguistic patternings. In this view of genre, the same genre may exhibit several different linguistic patternings.

Paltridge (1996) proposes yet another view, in which he modifies the Australian theorists' conception of genre, outlined above. He argues that the Australian notions of genres should be considered as text-types and these he defines in a similar way to Biber. I follow this practice and refer to the Australian notions of genres as text-types in this thesis. Other scholars (e.g. Askehave & Swales, 2001; Swales, 1990) focus on linguistic patternings and textual organisation as manifestations of genres, but also consider the influence of communicative purpose and recently, aspects surrounding the production and reception of the discourse within a discourse community. As Askehave and Swales (2001) acknowledge, the delimiting of a discourse community and the relationship between that community and the texts 'owned' by that community, is unstable, as is the stability of the linguistic patternings that realise genres. Given the contention surrounding the notion of genre, in this study, it is understood to be the expression of social purpose and social action that is achieved by textual organisation.

3.2 Interpersonal management in construing argumentation

Drawing on the interpersonal metafunction of language, Thompson (2001) and Thompson and Thetela (1995) develop a system for the management of the interpersonal resources of language. This system contains two related but different subsets of the management system which writers can manipulate to construe argumentation. These are personal and interactional forms of interpersonal management and their function within the interpersonal system is shown in Figure 1.

Figure 1 Interpersonal systems
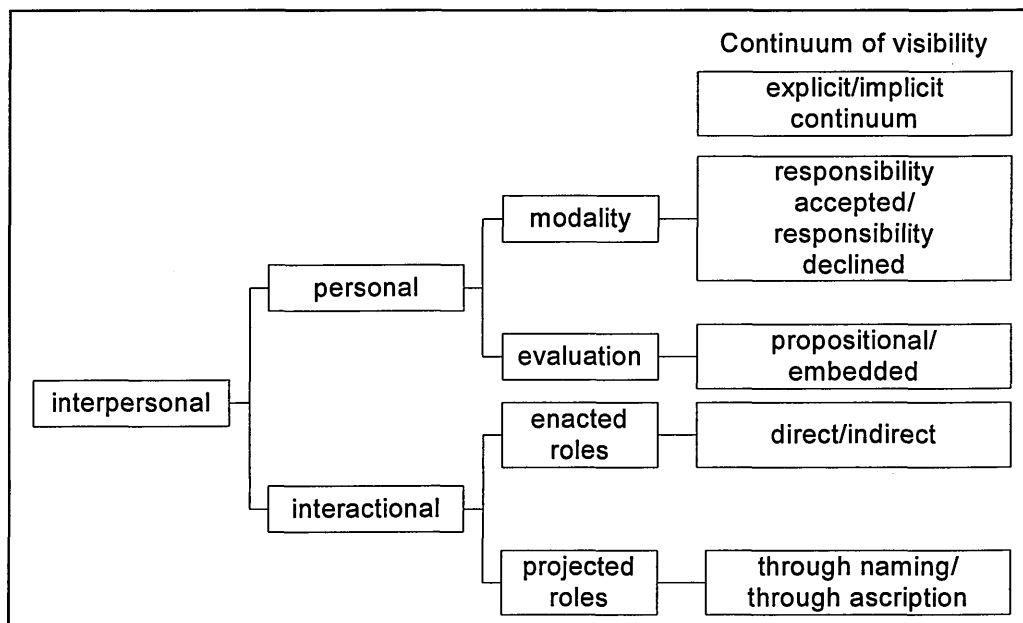
(Adapted from Thompson & Thetela, 1995:107)

This system is derived from research that included studies of academic theses and business and academic presentations. It is, consequently, relevant to the present study (1995:125 note 2). The system shows four choices that writers can use to realise interpersonal meaning: modality, evaluation, enacted and projected roles. It also shows that these resources can be realised in text as a continuum of visibility.

3.3 Continuum of visibility

Thompson and Thetela (1995) comment that

It appears to be a general feature of interpersonal systems that it is possible to identify a continuum from most to least explicit forms of realisation: that is, the speaker/writer may appear in the text,

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for personal or interactional purposes, with greater or lesser
degree of visibility. (1995:109)

It follows from this that both modality and evaluation are realised as a continuum of visibility. Modality is realised as a continuum from implicit to explicit realisation. Evaluation is realised as a continuum in which, at one level of realisation, evaluation is made explicit; while at another level, judgement is embedded so that it is not open to negotiation. Likewise, enacted roles are made obvious, or they are implied, and, in projected roles, writers directly address the reader or ascribe roles to the reader.

Controlling this visibility or explicitness is a resource that can be used by writers to persuade, evaluate and draw connections between propositions in their texts, while responding to contextual pressures. Several studies support this. Hunston (1993b) identifies an objective/subjective continuum in the use of modality associated with argument in different registers. Thetela (1995; 1997b) and Hunston (1989; 1993a) identify an implicit /explicit continuum in the use of evaluation resources in academic argumentation, and Hunston (1993a) finds a propositional/embedded continuum in science writing. Davies (1988:175) uses Lakoff's (1979) term 'writer/writer viewpoint visibility'. She argues that the extent to which the writer makes his or her 'presence' in the text visible is a resource for creating a persuasive text and that this resource enables a writer to construct a stance or position toward propositions being made in the text. Similarly, Fairclough and Hardy (1997) and Iedema (1999) note a continuum in uses of modality in business writing from overt use of modal forms to language in which modality is curtailed. All these authorities ascribe these choices to generic and register influences.

3.4   Interactive and Interactional resources in argumentation

Thompson and Thetela (1995) and Thompson (2001) develop the notion of interactivity in text to include interactive and interactional resources and argue that both these resources can be used to construct argumentation. Thompson argues that both these resources can be used by a writer to involve the 'reader-in-the-text'. This is the 'ideal

reader' that the writer imagines reading the text, and as such, is a construct of the writer. Thompson writes:

> Achieving involvement, through a convergence of the reader with the reader-in-the -text, is a crucial step in most types of argumentative, persuasive text, including academic papers and assignments, and collaboration is a central form of involvement (Thompson, 2001:62).

Therefore, use of both interactive and interactional resources enables writers of argumentation to construct their texts as involvement with two points of view and organise text to signal the logical substructure of their argument.

The discrimination between interactive functions and interactional functions of text are shown in Figure 1. According to Thompson and Thetela (1995), interactive resources are considered by Widdowson (1984) and Hoey (1988) (in Thompson, 2001:58) to enable the writer to respond to the needs of the reader. Both Widdowson and Hoey identify an interactive text as one in which the writer implicitly assumes the reactions of the reader. The linguistic structures used as resources for achieving this rhetorical goal are conjunctions and conjunctive adjuncts and text patterns such as problem-solution. To these resources, Thompson and Zhou (2000) add modal adjuncts, which, they argue, also have a role in text organisation. All these resources act as aids in processing the text, guiding readers' expectations and managing the flow of information. In this way, they realise argumentation.

Thompson and Thetela (1995) have identified another set of resources of the interpersonal system: interactional resources. These can also promote argumentation because they 'aim to involve readers in the argument or ethos of the text' (Thompson, 2001:59) and their functions are

> ...those which allow writers to conduct more or less overt interaction with their audience, by appearing in the text to comment on and evaluate and by assigning speech roles to themselves and the reader. (Thompson, 2001:60)

In order to conduct this interaction, the writer has to appeal to a notional reader, called 'the-reader-in-the-text' by Thompson and Thetela (1995). To instantiate this form of interaction, writers use declarative, interrogative and imperative mood to seek an overt engagement with the reader. This can be exemplified by considering the use of questions to the reader in a text. Example 1 is an extract from an assignment written for assessment by a student in the present study and shows the student using a question with no actual respondent possible.

Example 1: Interactional resource: interrogative mood
> Would we sell a product or service for nothing if it were best for
> members over needing revenue to run the business i.e. returning
> profits to members? (John.tma1cl.5)[3]

The student is addressing the question to a 'reader-in-the-text' in order to lead into a proposition that such a thing would be unwise.

There are two ways in which writers create this interactional interpersonal positioning, through enacted roles and through projected roles.
> Enacted roles are those which are performed by the act of
> speaking/writing itself. They are essentially Halliday's speech
> roles. Choices chiefly (though not exclusively) within the mood
> element of the clause act to assign certain roles to the two people
> directly involved in the language event: the speaker/writer, by
> choosing declarative or interrogative for example, acts out the role
> of giver or demander of information with the listener/ reader in the
> complementary role of (potential) accepter or provider.
> (Thompson & Thetela, 1995:107)

An example of an enacted role is the use of the imperative mood in which the addresser demands goods and services[4] from the addressee (Halliday, 1994:87) thus engaging in a

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[3]Where examples are taken from the data used in this study, this is referenced. If no reference accompanies an example, then the example is constructed to illustrate a linguistic structure. The codification of all the examples used in this study is explained in Appendix 2

[4] For information about speech roles, specifically the exchange of goods and services and of information, see Halliday 1994: p.68

potential interaction, as shown in this example taken from a student's individual written assignment:

Example 2: interactional: enacted role
> Focus more attention on the Customer perspective. (Martin.tma1.cl.163)

Projected roles create a role for the reader-in-the text:

> Projected roles are those which are assigned by the speaker/writer
> by means of overt labelling of the two participants involved in the
> language event. The labelling is done by the choice of terms used
> to address or name two participants and by the roles ascribed to
> them in the processes referred to in the clause. The speaker/writer
> can therefore choose not to project roles (whereas she cannot
> choose not to enact roles). (Thompson & Thetela, 1995:108)

An example of a projected role, taken from a student's computer-mediated message, is:

Example 3: interactional: projected role
> Well at least you can feel as though your time is not wasted! :-)
>
> (Martin.2/12.17.46.cl.2)

In the example, the reader of this message is projected as a person who can feel something or think something about themselves. Thus they have been ascribed a role, and in this sense, the text is interactional. They may, of course, refuse that role just as the *you* in Example 3 may refuse to comply with the imperative.

According to Thompson and Thetela (1995) vocatives (see Example 4) also have this same role in promoting interaction. In the example, the vocative, *Melanie* is projected as having an opinion about financial measures.

Example 4: interactional resources: projected
> Melanie you say financial measures are more important to you in
> your measuring of performance, (John.2/12.19.54.cl.21)

So far, it has been argued that the use of several rhetorical constructs, interactive and interactional resources, plus the control of a continuum of explicitness and writer

visibility, are ways in which writers construct argumentation. These will be discussed in more detail after considering a possible critique of the notion of reader-in-the- text.

3.4.1 The notion of reader-in-the-text

Myers (1999) takes issue with the notion of reader-in-the-text. He claims that there is an assumption made by researchers who use this notion that interaction between reader and writer is based on principles of human behaviour. He calls this research 'principle-based' research (ibid:56) and argues that such concepts as reader-in-the-text are developed 'in a social system bounded by our own analytical assumptions about the purpose of communication' (ibid:56). He writes:

> There is no unmarked background of message against which to analyse the interpersonal. Writers and readers may not act as strategic selves but may take a number of relations to the text. The social world is not a stable background providing conventions for interpretation, but is a set of complex relations that the text may or may not stabilize. Analysts cannot assume that their own processes of analysis mirror the social origins and effects of the text. (Myers, 1999:58)

Implicit in this is the suggestion that the notion of reader-in-the-text is too much of an abstract concept based on the analyst's own conception of how a reader might behave. Myers compares this linguistic research with research that he claims 'rematerialises the text' (ibid:59), citing linguistic ethnographic research and research based on theories of situated practice: (Freedman & Medway, 1994; Ivanic, 1997; Lea & Street, 1999; Prior, 1994). He claims that the text is 'rematerialised' by research that identifies the actual process of production. This, he argues, can illuminate or make available for analysis the meaning the text holds for writer and reader.

While I endorse linguistic ethnography to the extent of including such research in this study, and while conceding that it is difficult to argue for a unitary meaning for a text[5], I

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[5] See the reader-response movement in U.S.A. (e.g. Louise Rosenblatt, 1978 *The Reader, the Text, the Poem: The Transactional Theory of the Literary Work* Carbondale, Il.: Southern Illinoise Press

would argue that the concept of interaction between writer and 'reader-in-the -text' has validity. In an absolute sense, there is no way in which a writer can control the different readings of a particular text, but, in order to make meaning at all, the writer has to make use of the resources of the language and the conventions of the register and genre, some of which are interactive resources. Likewise, in order to make any sense, the reader needs an understanding of these resources too. Readers may choose to do critical readings and they may treat texts in idiosyncratic ways. Not withstanding this, the writer articulates, for want of a better word, a developing meaning in his or her text by choosing specific resources available in the language. It is with this understanding of the relationship between linguistic features and reader/writer interaction that this account of a research of linguistic construal of argumentation proceeds.

3.5 Personal resources

In Thompson and Thetela's (1995) framework of interpersonal systems, personal resources are differentiated from interactive and interactional resources. According to these scholars, personal resources have long been recognised as resources used in argumentation. These are resources that 'convey the speaker's own view of events without directly setting up interactional expectations' (Thompson & Thetela, 1995:107). They encompass modality resources and resources used for evaluation in text.

3.5.1 Modality

Hodge and Kress (1988:122) specify modality as a semiotic process which enables speakers to affirm solidarity with the prevailing mores of the group or exert power and challenge these mores. Like Billig and Bakhtin, (see Chapter 2) they say that there are no neutral statements but that every statement is infused with the values of the community:

> Modality is, consequently, in play at all times, in every semiotic
> act. (1988:122)

As a resource for constructing argumentation, modality is associated with specific lexico-grammatical structures and concerned specifically with tenor relations.

A narrow view of modality holds that it is concerned with the status of the proposition that describes the event (Palmer, 2001:1). A broader view is that modality

> ...refers broadly to a speaker's attitude toward or opinion about the truth of a proposition expressed by a sentence or event described by a sentence. (Simpson, 1990:67)

Both views indicate the central role played by modality in argumentation. Several scholars (e.g. Coates, 1983; Palmer, 1979) restrict the linguistic resources for modality to modal verbs, but others (e.g. Halliday, 1994; Perkins, 1983) extend the resources to include a variety of structures that enable the speaker to present attitude and stance. These are modal adjuncts, comment adjuncts and metaphorical expressions. Example 5 shows how modality is realised by the use of a modal finite *should* together with the mood adjunct *Of course*

Example 5: Modality in text (constructed example)

Of course	Juan and I	should	have talked
Mood Adjunct (obviousness)	Subject	Finite + Modal (obligation)	Predicator
Mood Block			Residue

3.5.2 Epistemic and deontic modality

Scholars make a distinction between epistemic modality and deontic modality. Epistemic modality is concerned with the possibility of a proposition being true, and deontic modality is concerned with obligation and permission to do something (Palmer, 2001:7; Perkins, 1983:103). Use of these different kinds of modality by writers influences the kinds of argumentation possible in a text. According to Palmer, epistemic modality encompasses notions of evidentials (Chafe, 1986) as well as concerns about validity (Palmer, 2001:8). Evidentials express the kinds of evidence a person has for making factual claims 'and cover any linguistic expression of attitudes toward knowledge' (Chafe, 1986:271). Chafe develops a taxonomy of kinds of evidence

used to support knowledge claims. For instance, he finds that evidentials expressed as a hypothesis based on deduction are the most frequent in academic writing, whereas evidentials based on belief are much more frequent in conversational English. Therefore, taking a broader view of epistemic modality, it is concerned not only with expressing the degree of the validity or reality of the proposition but also the inference that this opinion is supported by some kind of evidence.

An understanding of epistemic modality in which the focus is on the writer, who signals differing levels of commitment to a proposition, is proposed by Lyons (1977),

> Any utterance in which the speaker explicitly qualifies his commitment to the truth of the propositions expressed by the sentence he utters...is an epistemically modal or modalised sentence. (Lyons, 1977:240)

The strongest signal of commitment to a proposition is a categorical assertion (Lyons, 1977). This is a proposition in which the writer gives no indication of the source for his claim and no qualification of commitment to it.

> If there is no explicit mention of the source of our information and no explicit qualification of our commitment to its factuality, it will be assumed that we have full epistemic warrant for what we say (Lyons, 1977:809)

This implies a gradient or cline of commitment between categorical assertions and qualified assertions, a view also supported by Perkins (1983), Palmer (2001) and Butler (1990). This cline is another rhetorical resource used by writers in constructing argumentation.

Halliday bases his notions of modalisation on such views of modality (Halliday, 1994:357). Halliday's system of types of modality are modalisation, which corresponds to epistemic modality, and modulation, which corresponds to deontic modality (1994:357). He argues that each type of modality engages speakers in different types of exchanges. Therefore, he proposes that, semantically, modalisation is concerned with propositions concerning probability and usuality, as in the following example from an assignment. This involves the speaker in an exchange of information.

Example 6: Modality: modalisation

> As IM grows it may require a formal performance measurement
>
> system to be in place to monitor its performance. (Martin.tma1.cl.14)

Modulation is concerned with proposals in a goods and services exchange and, unlike modalisation, modulation does not express the writer's assessment of the truth or reality of an event. Such an exchange is illustrated in Example 5, reproduced here:

> Of course, Juan and I should have talked

Here, the writer expresses obligation about what ought to happen rather than the truth of the proposition. Choice of either modalisation or modulation engages different speech roles. In choosing one or other form of modality, writers are engaging in different interpersonal positioning with their reader and this has implications for the kinds of argumentation in which they are engaging.

There are two more aspects of Halliday's notions of modalisation that have proved significant for argumentation. These are metaphoric realisations of modality and subjective and objective orientations.

3.5.3 Metaphoric realisations of modality

Halliday's notion of metaphor is based on the argument that there are typical, congruent, and less-typical, non-congruent, ways of construing experience (1994:343) and, in a systemic functional model, the non-congruent way is a lexico-grammatical variation in the expression of meaning (ibid:341). This means that meanings typically realised by one language pattern are realised by a less typical pattern. The relevance of this for studies of argumentation is that 'the selection of metaphor itself is a meaningful choice' (Halliday, 1994:342).

There are two types of metaphor in the clause, experiential grammatical metaphor and interpersonal metaphor. Interpersonal metaphors are varied in their lexico-grammatical realisation. Congruent ways of expressing modality were illustrated in Example 6 (reproduced below), in which the underlined modal element expresses epistemic modality:

As IM grows, it <u>may</u> require a formal performance measurement system to be in place to monitor its performance. (Martin.tma1cl.14)

Non-congruent ways of realising modality are numerous (Halliday, 1994:355) and can employ the use of projecting clauses, as in Example 7. The structure of projecting clauses and the meanings they construe are discussed in detail in 8.4.2. In projecting clauses, the speaker's expression of commitment to a proposition is coded, not as a modal element within the clause, but as a separate projecting clause (Halliday, 1994:354), as shown in the example:

Example 7: Modality: Interpersonal metaphor

<u>I think</u> the performance of its surgeons is also about to be put in the public domain. (Martin.6/11.15.28.cl.12)

In the example, the constituents underlined are considered to express epistemic modality and, according to Halliday, the congruent expression of this meaning would use a modal verb expressing epistemic modality as follows:

The performance of its surgeons may also be about to be put in the public domain.

3.5.4 Subjective and objective orientations of modality

Halliday offers a further categorization of modality. This is the semantic category of orientation with two realisations of orientation: implicit and explicit. The categories of orientation are as shown in Figure 2

Figure 2: Subjective and objective orientations of modality
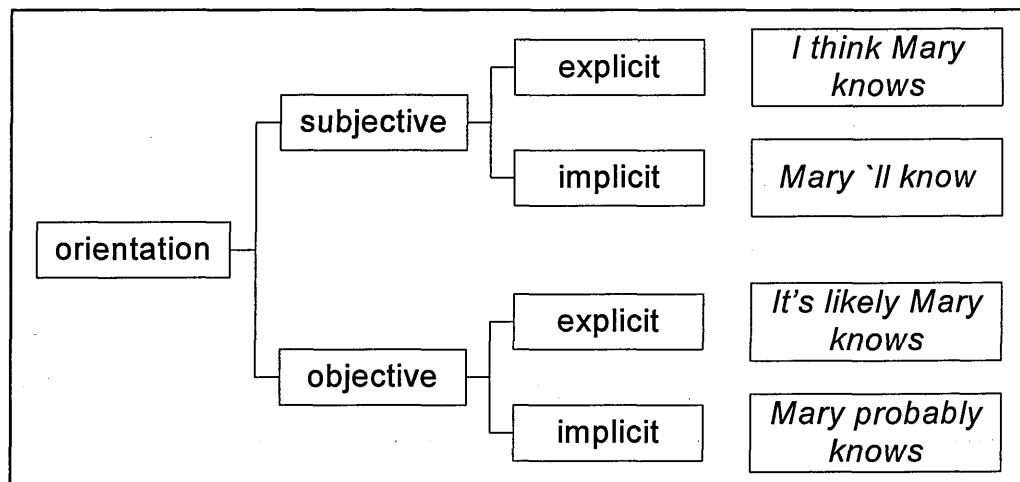
Adapted from Halliday (1994:355) and Hunston (1991:2)

As Halliday's examples show, in implicit modality, the modality is part of the clause that contains the proposition being modified. In explicit modality, the modality is in the projecting clause.

The choices writers make between congruent and non-congruent ways of expressing modality and between objective and subjective orientations of modality have been shown to be important resources for construing argumentation. Several scholars argue that these choices signify register and genre differences (e.g. Davies, 1997:69; Hunston, 1993b). While Davies finds that in a text book genre the writer uses an objectified viewpoint to evaluate current theoretical approaches, Hunston (1993b) found that a radio discussion programme and academic research articles made use of different modal orientations and that these differences indicated influences of ideology

3.5.5 Hedging

Hedging has been included in this section because some scholars see it as a modal form conferring degrees of certainty on a proposition. Hyland supports this view, stating that hedging is a resource that makes it possible to make 'unproven propositions with caution and precision' (Hyland, 1996:433). He argues that the function of content oriented hedges shows them to be intimately concerned with epistemic modality, mitigating as

they do 'the relationship between propositional content and a representation of reality.' (1996:438)

He views hedging as having an equally important role in constructing participant relations by attending to politeness factors in the way claims are made and readers addressed. He argues that, in order to have arguments accepted in academia, a writer has to construct an appropriate persona. Hedging is an important resource for accomplishing this. Hence, hedging is also a resource for constructing tenor by keeping statements open to negotiation:

> Essentially, in presenting claims, a writer also projects a *persona* which carries information concerning the writer's professional attitudes to the discipline...This professional personality is crucial to achieving rhetorical goals as it also conveys an attitude about the reader and his/her role in the negotiation of knowledge claims. Presenting claims as ex-cathedra assertions displays an unacceptable deviant persona as it ignores any involvement by the reader in the ratification of claims. Categorical assertions leave no room for negotiation: they imply an assurance in the certainty of arguments that require no feedback, and this relegates readers to a passive role. Hedged statements, on the other hand, mark claims as provisional, they invite the reader to participate in dialogue. Hedges solicit collusion by addressing the reader as an intelligent colleague capable of participating in the discourse with an open mind. Good arguments are only 'good' from a particular perspective and hedges work to create this perspective. (1996:446)

Myers (1985; 1989) emphasises the interpersonal function of hedging rather than its function as an epistemic device and draws on politeness theory (Brown & Levinson, 1987) to support a view of hedging as 'rational strategies for dealing with ...social interactions' (Myers, 1989:3). These structures are used, not to mark the possibility of a claim being true, but to deal with 'face' issues in making a claim at all.

Some evidence of this lies in Myers' observation that, in email discussions, the acronym IMHO for 'In my humble opinion' is used 'to defuse possible offence' (Myers, 2001:75) and to signal that something is in dispute, hence marking argument or challenge. In this case, the hedge is not concerned with epistemic functions.

I would argue that these views are not mutually exclusive and so hedging in this study is considered to realise both epistemic and interpersonal meaning. It also follows from this discussion that the decision of the writer to use hedging, and the extent of its use, is the result of the influence of the values of the discourse community.

3.6 Evaluation

Evaluation, the other function of the 'personal' system' (see Figure 1) is constructed by many structures of the discourse and is not the primary role of one linguistic feature nor can it be classified into a single linguistic category (Hunston, 1989, 1993a; Hunston & Thompson, 2000; Martin, 2000). Consequently, evaluation in text draws on modality resources, hedging structures, grammatical and interpersonal metaphors and other structures. An important characteristic of evaluation is that it is dependent on the value system of the discourse community in which it is produced (Hunston, 1994:210). Hunston and Thompson (2000:6) argue that evaluation has three functions in a text, which all play a part in argumentation. I have paraphrased these functions as follows:

1. to express the speaker's or writer's opinion and in doing so reflect the value system of that person and their community
2. to construct and maintain relations between speaker or writer and hearer or reader
3. to organise discourse

3.6.1 Source, attribution and averral

One way in which writers encode evaluation is by drawing on the notion of source together with the resources of averral and attribution. How a writer refers to the source of a proposition indicates the value the writer places on that source, and hence, how the writer would like the reader-in-the-text to value the proposition that the source supports. Reference to source is indicative of both epistemic value, that is, how valued the

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proposition is within a discourse community (Hunston, 1989, 1993a; Thetela, 1997a) and of register (Hunston, 1993b). The concept of source draws on notions of averral and attribution (Hunston, 2000; Sinclair, 1982). These are, according to Sinclair (1982), functions of the interactive plane of language, in which speakers either aver a statement or attribute the statement to another source. He argues that writers take full responsibility for what they aver, but says of attribution:

> If an author wishes not to aver a proposition, he signals this by
> attributing it to someone else. (Sinclair, 1982:78)

To give a simple gloss to these terms, if a statement is attributed, it is presented as deriving from another voice other than the writer's (see Example 8). If a statement is averred, the writer 'speaks' and the proposition comes from her own voice (see Example 9). In Example 9, the writer is taking full responsibility for the proposition and therefore evaluating it as certain. In Example 8, the writer is delegating responsibility for the proposition to another source and hence is less committed to the proposition.

Example 8: Attributed proposition
MacDonald suggests that classical systems of management are hierarchical

Example 9: Averred proposition
Classical systems of management are hierarchical

Several studies have used these concepts and linked the notions of attribution with modality (e.g. Hunston, 1989; Hunston, 1993b, 2000; Stubbs, 1996; Thetela, 1997a). Hunston (1993b) and Stubbs (1996) apply these concepts to projecting clauses (see Example 8) and note that this structure identifies the source of a proposition as well as encodes modality. Stubbs (1996) refers to Chafe's (1986) view that clauses such as Example 8 encode modality and act as an evidential device. Stubbs writes that such devices

> ....enable writers to encode epistemological considerations, such
> as the degree of reliability the speaker/writer attributes to a
> proposition and the source of the knowledge. (Stubbs, 1996:239)

Chafe (1986) and Hunston (1993b) both found that the choice of source is different in spoken English and written English. In the study of differences in argumentation between a spoken radio programme called Any Questions (AQ) and academic research articles (ARAs), Hunston found that the choice of source to which speakers and writers attributed their propositions distinguished the registers between the radio discussion programme and the academic research articles. Seventy one percent of sources of judgement in AQ were self and most of these portrayed the self as thinker. Therefore, the speakers had selected a subjective orientation and themselves as source and authority for the claim as exemplified in Example (a)

Example (a)

    I think it's possibly true to say that the life of every single female.

    (Hunston, 1993b:105)

In contrast, only eighteen percent of judgement sources in the ARAs are self sourced and therefore very few use subjective modality. Example (b) exemplifies choice of source in the ARAs.

Example (b)

    The findings presented in Table 1 show that the frequency of use

    of listener response is culturally specific. (1993b:102)

Hunston argues that this indicates a difference in the ideology between the two registers. In the AQ texts, it is the opinion of the speaker that is held to be of value. In contrast, personal judgement is not valued in the ARAs, and in order to make a judgement in this register, personal opinion has to be disguised. This is shown in Example (b) in which it is 'findings' in the projecting clause (underlined) that has agency. The writer's opinion is attributed to an entity, a finding, in the text. Hunston further differentiates between the ARAs and the AQ text by the types of sources to which claims are attributed. ARA texts attributed opinions to other scholars and results of their studies. AQ texts overwhelmingly attribute to themselves, or to people such as 'John Major' or vague sources 'everybody'. These choices are central to the construal of argumentation and Hunston attributes them to the influence of the sub-culture:

    Conclusions can be drawn also about the sub-cultures of the two

    registers from factors determining their choice of source.

    (1993b:111)

The influence of register on choice of source is given further support by Fairclough and Hardy (1997) who note that in business reports, very few statements are attributed as, they suggest, such attribution would detract from the authoritative tone that business writers attempt to produce in their reports.

Thetela (1995; 1997a) uses notions of modality, source, attribution and averral to analyse how writers realise evaluation in text. She developed an analysis in which the distribution of these resources indicates the degree of certainty that writers attach to their statements. These choices she calls 'writer responsibility'

> Writer responsibility can be described as the 'weighting' of a proposition in terms of its strength based on who the originator is as well as how committed the writer of the text is to the validity of the proposition. (Thetela, 1997b:99)

The 'weighting' was realised by three variables: source of information, writer's treatment of source of information and modification of certainty (1997b:103). These resources were found to be distributed in a continuum from the most explicit forms of writer commitment to least explicit forms.

Hunston (1989; 1993a) developed an analysis of evaluation in scientific research articles based on writers' use of the resources of modality, averral, attribution and source. She found that science writers limit their use of obvious interpersonal judgements in the form of evaluatory words such as adjectives and adverbs. She reports an epistemology in which notions of objectivity are pronounced. In the ARAs, the results of research and the objects of study are presented as providing evidence for claims, free of human interpretation.

> ...to be convincing, what is persuasion must appear only to be reportage. It follows that evaluation through which the persuasion is carried out must be highly implicit and will, in fact, avoid the attitudinal language normally associated with interpersonal meaning. (1993a:193)

Therefore, evaluation depends on a system of shared values that permeate every part of the text. She identified three types of evaluation: status, value and relevance. Status is

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the degree of certainty and commitment awarded to a proposition. Value is related to an assessment of worth, and relevance is related to judgement of importance. Hunston found that in scientific research articles a high degree of certainty was accorded to what the experimenter does herself. Value is accredited by how far activities and entities achieve scientific goals. Hunston cites the sentence depicting activity from her data 'I followed seedlings for two months' (1993a:60) as having high value within that community. Relevance is instantiated by textual organisation (1993a:65). These findings lead Hunston to argue that:

> ...the value system of the target community must be absorbed and
> information and argument must be presented in its terms. The
> final product must be expressed in a way that both says what the
> student wants to say and fits what the target audience wants to
> hear. The ideology of the discipline must be conformed to, yet its
> value system must remain implicit. (Hunston, 1993a:72)

These findings point to the controlling influence of the values or ideology of the community on what can be evaluated and how that evaluation can be argued for. The findings give support to research from other schools of research discussed later.

The studies discussed in this section indicate that resources of source, averral and attribution are used by writers to construct argumentation and deployment of these resources enables the writer to comply with the values system of a community.

Another set of resources, or perhaps another way of accounting for the use of resources already discussed, is that of writer visibility. Davies (1988; 1997) found differences between genre in the use of a cluster of resources which foreground the writer as intruding in the text to comment and evaluate. These include subjective modality, use of personal reference and overt forms of evaluation, which she refers to as writer visibility. These, like all the resources so far discussed, are realised in text in a cline from overt to minimal.

The discussion has shown that 'personal' resources of the interpersonal system are heterogeneous. They involve many lexico-grammatical structures available to writers

that can be used to influence the reader and shape argumentation. Their effectiveness is due to the control the writer has on the extent of their deployment. This choice is itself influenced by register and the values of the discourse community.

The discussion in this section indicates that both the personal and interactional resources of the interpersonal system account for many of the ways in which writers construe argumentation. These resources provide a partial linguistic account of argumentation which widens the understanding of argumentation to include interpersonal and contextual influences, and the influences of the ideology of the speakers and writers. Thus, the concept of argumentation is extended beyond the logical relationships and beyond the normative assessments of argument discussed in Chapter 2.

3.7 Semantic relations

Semantic relations are central to several of the views of argumentation discussed in Chapter Two, such as the dialectic models of Walton (1998), Van Eemeren's (1992) Pragma Dialectic and the Toulmin (Toulmin et al., 1979) and macro-Toulmin model (Riddle, 2000). Thompson and Thetela (1995) and Thompson (2001) do not explicitly refer to this aspect of discourse in the framework for interpersonal management because it is a function commonly associated with the textual metafunction or the ideational metafunction. They do, however, seem to suggest that semantic relations can be wrought through interactivity in personal management. In this they are supported by Sinclair (1993:7), who proposed that logical operators such as *so, therefore, on the contrary* in text have both an interactive and evaluatory role. Thompson (2001:63) refers to Winter's clause relations patterns (Winter, 1994) and, more specifically, Hypothetical-Real patterns (Hoey, 1983), as evidence that semantic relations, such as concession, are realised in the context of arguing with the reader and in the context of interaction in text. Thompson therefore presents these kinds of semantic relations as aspects of interpersonal management. Thompson and Zhou (2000) add further support to this by arguing that some interpersonal adjuncts have both a textual and interpersonal function.

It would seem, therefore, that semantic relations are constructed by resources from the interpersonal metafunction and the textual metafunction. Later in this chapter, resources from the ideational metafunction will also be shown to construe semantic relations. All this suggests that building semantic relations within a text in order to argue is very complex and possibly accounts for the difficulty inexperienced writers experience in building arguments (see Chapter 2.5).

With the caveat in mind that semantic relations are constructed by writers in many ways, this discussion will focus on the semantic relations instantiated by conjunctions and conjunctive adjuncts.

Martin (1992a:168) distinguishes between conjunctive relations made between processes[6] and those made within processes and argues that these differences are characteristic of mode. Relationships characteristic of conversational spoken modes tend to realise relationships between processes in paratactic and hypotactic relations. Martin exemplifies these differences using temporal relations in the examples below, which are from Martin (1992a:168). In these examples, I have emboldened the conjunctive signals. In Example 10, the conjunctive relationship is made between two independent clauses using conjunction.

Example 10: paratactic conjunction
The people sort of walk the ring with their dogs, **and then** we sort of wait.

In Example 11 a 'cohesive' relationship, still based on temporal relationships, is constructed using a conjunctive adjunct between two clause complexes (sentences).

Example 11: Cohesive conjunction
We walk the ring with our dogs. **Afterwards** we just wait

The hypotactic form of conjunction is based on the relationship constructed between a main clause and a subsidiary clause:

Example 12: Hypotactic conjunction
After we walk the ring with our dogs we just wait.

---

[6] The process is the element of the clause that indicates what is going on, the action, event, experience or relationship which is represented by the verb.

The other way in which conjunctive relations are realised, according to Martin, is within processes. This means that the relationship is not signalled by conjunctions but is implicit because a verb has been nominalised[7]. This results in the kind of relationship shown in Example 13:

Example 13: Circumstance of Location
After our *tour* of the ring, we just wait

Here the circumstantial adjunct *After our tour of the ring,* forms a temporal relation with the process *wait.* In this sentence, *tour* is a nominalisation of the verb in *we tour the ring.* Therefore, one action is in a temporal relationship with another. Another way of construing conjunctive relations using nominalisation entails the use of the relational process (see Halliday 1994) (see Example 14)

Example 14:
Our *tour* of the ring is **prior** to our **wait.**

Martin (1992a:177) concedes that semantic relations within texts 'can be looked at in different ways' and this leads to differences between scholars in the way relations are categorised (ibid:177). In spite of this, the categorisation of conjunctive relations proposed by Martin indicates that writers have choices, and these choices, he claims, are associated with mode (Martin, 1992a:168). Writers can choose to instantiate conjunctive relations between processes, drawing on the resources of the textual metafunction, or choose to instantiate the relations within processes, drawing on the resources of the ideational metafunction. He argues that conversational English makes use of conjunction outside the process while 'in other modes' (ibid:168) more frequent use is made of processes to realise these relationships.

3.8 Nominalisation as a resource for argumentation

Nominalisation not only enables the writer to construct a form of semantic relations, but is an essential resource in developing the complex generalizations of abstract written argument (Halliday & Martin, 1993). In its simplest form, nominalisation is the change

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[7] This is described in some detail in the next section.

of a verb form of a word into a noun, which then becomes a participant in a process. This was referred to in the discussion of semantic relations in 3.7 and exemplified in Example 14. In a more complex form, enhanced by pre- and post-modification, nominalised structures are able to package information. It is this feature that enables writers using this resource to construe the impersonal abstract causative relations required in some types of argumentation found in academic and scientific writing.

Halliday (1993) suggests that abstract causative relations in argumentation are the result of a semantic progression that has metaphor at its heart. The congruent way of construing a causative relationship changes through a series of reconfigurations in the grammar into a non-congruent metaphorical construal and this results in one form of grammatical metaphor. This progression is shown in Figure 3. The more 'naturalistic' construal of causation in (A) and (B) is realised using conjunction and subordination. This is superseded by the causal relationship being expressed as a projected fact in (C) and, finally, the argumentation is expressed by a metaphoric rendering of the causal relationship between *a* and *x* in (E). Halliday argues that this results in experience being compressed and reified.

Figure 3 Ideational metaphor: external causation claim

(A)	*a* happens; so *x* happens
(B)	because *a* happens, *x* happens
(C)	that *a* happens causes *x* to happen
(D)	happening *a* causes happening *x*
(E)	happening *a* is the cause of happening *x*
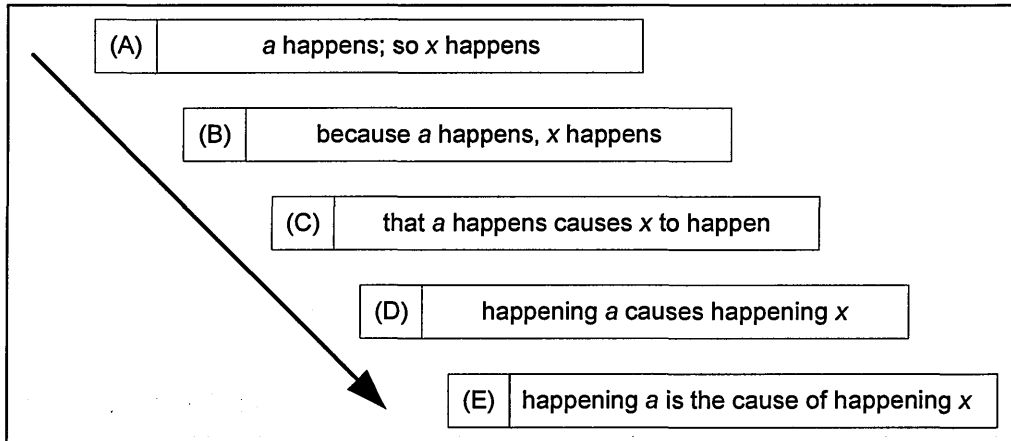
(Adapted from Halliday and Martin (1993:66))

Reification in this manner elides human agency and the logical steps which lead to the proposition. This, Halliday suggests, causes ambiguity in writing. He writes that grammatical metaphor (such as in E) can lead to 'strings of nouns' which leave 'inexplicit the semantic relations (mainly transitivity relations)' that form these logical steps' (Halliday & Martin, 1993:67). By exploiting this ambiguity, a skilful writer can construe what could be contentious as natural and it is a way of making evaluation implicit.

Though not all nominalisation leads to this level of abstraction, several scholars, Coffin (1997), Fairclough and Hardy (1997) and Iedema (2000) have found that this language resource is crucial in enabling writers to write appropriate managerial, administrative and high school argumentation. Coffin found nominalisation to be a key resource in enabling school students writing History to move from a simple recount of historical events into an account which allocated cause.

> Events were nominalised and construed as forms of beliefs or behaviour which are brought into causal relations with new events. These events are in turn reconstructed as things (nominalised beliefs or behaviour) and, following a theme/rheme pattern, are constructed as producing new events. (Coffin, 1997:212)

In a higher education management course, Fairclough and Hardy (1997) found that using grammatical metaphor led to human agency being elided as a causative agent. They argue that the process of construing reality as grammatical metaphor masks the participants in the process:

> What gets lost when a process is nominalised are tense, modality,
>
> and also a sense of the associated participants in the process
>
> (Fairclough & Hardy, 1997:148).

The consequence for argumentation in management writing, according to Fairclough and Hardy, is that the loss of associative participants can mask aspects of power and strengthen presuppositions. In this way, contentious issues become naturalised and the argumentation in management writing is not open to challenge. Iedema (1998; 1999; 2000) takes a similar view, noting that metaphoric and nominalised renderings of interactions elide any modality which may have been present in the original interaction. He argues that a process of recontextualisation happens as negotiated decisions, made in multiparty discussions during planning meetings, move through the administrative process of a government department. The decisions are first written as minutes of a meeting and then as Reports and Recommendations. Iedema argues that the further the text moves from the instance of negotiation, the more it becomes a 'distantiated construction of reality' (2000:52). Iedema specifies the use of passive verb forms together with the semiotic processes of nominalisation as ways in which the original message is demodalised and in the process a new meaning or resemiotisation occurs. He argues that these processes are manifestations of the ideology of modern administrative systems involved in the management of governmental and industrial processes. These linguistic processes construe abstraction, formalisation of language and implicitness in bureaucratic managerial language. The formalization in the text engendered by the use of these language structures signals interactional closure by limiting the possibility of renegotiation of agreements and decisions. This is done by using classificatory nominals such as:

Operational Performance   (Martin.tma1.cl.42)

The Order Management Cycle   (John.tma1.cl.33)

The most distanced, unnegotiable form is as follows:

> Changes in corporate strategy in both organisations have resulted
> in changes in the way critical issues are reported to Senior
> Management. (Elenna.tma.cl.68)

This formulation does not permit the conception of a human agent. Instead, the example empowers a non-human agency to bring about change.

Ravelli (2000) found that nominalisation in the form of grammatical metaphor, generic nouns or semiotic abstractions[8] not only increased the level of abstraction in the essays when placed as hyper-Themes but also acted as organising resources. Hyper-Themes are part of the thematic structure of discourse and are introductory sentences which predict the thematic development of following sentences (Martin, 1992a:437). Ravelli reported that nominalised hyper-Themes acted as organizational nodes in text by having both prospective and retrospective functions which organised the argumentation into hierarchies (Ravelli, 2000:19). She found that there were differences between the disciplines in the way the students developed their argumentation from these nodes and she reports that these hierarchies depended on

> ...different preferred logico-semantic connections between
> paragraphs, resulting in different underlying frameworks to their
> essays. (Ravelli, 2000:32)

These different forms of logico-semantic progression resulted in Management students using expansion relations of elaboration and extension, whereas History essays proceeded by enhancement (see Halliday, 1994:220). These choices by Management students led Ravelli to describe arguing in management studies as one of compiling a list of taxonomies:

> Management essays are primarily structured around classification:
> types and factors. (2000:12)

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[8] Ravelli (2000:26) defines these as structures which do not have the abstraction of grammatical metaphors but are attaining a level of abstraction.

The implication of this research is that, in these Management essays, concepts are identified and classified, not interrogated, and the employment of complex nominalised forms plays an important role in this type of argumentation.

In sum, the resource of nominalisation enables writers to write using abstraction and generalisation, which scholars argue, is a requirement of academic argumentation. The degree of abstraction in argumentation has been shown to be associated with argumentation in academic and business writing. Choice of nominalised forms is also associated with interpersonal positioning and negotiability. As with other resources, a continuum can be discerned. At one end of the continuum, unmodalised, agentless nominals construct an objective voice, constructing a non-negotiable proposition, not open to challenge. The other end of the continuum is a text in which human agency is present and the attitudes and points of view of the writer are made overt by modalised forms and forms which bring about interactivity in ways described in earlier sections of this chapter. Unmodalised nominals also construct a categorical epistemic modality in which the writer is taking full responsibility and, hence, full commitment for a proposition. Epistemic modality and the degrees of commitment writers show to a proposition was discussed in relation to Lyons (1977) (see Chapter 3.5.2) and Thetela (1995), Another important function of nominal forms is to realise logical relations which Ravelli found to be specific to specific disciplines.

3.9   Epistemology and agency

Many authorities argue that the objects of study and what is considered as evidence or warrants for claims are specific to the discipline itself[9] and this must be taken into account in any discussion of argumentation. Studies by Myers (1990) Berkenkotter and Huckins (1995), Swales (1990) and Kelly and Bazerman (2003), as well as the earlier work by Toulmin on contingency, all attest to the constructed nature of epistemology in fields of study. In support of this, Swales argues that epistemic claims in science are not

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[9] This was, of course, argued by Hunston (1989; 1993) in studies already referred to, but from a different perspective.

absolute but depend on entities and happenings in scientific experimentation being recognised as scientific knowledge:

> It would appear that phenomena only acquire a fact-like status by consensus and that consensus may not be achievable without rhetorical persuasion (Swales, 1990:112).

Professional practitioners judge that making the appropriate level of epistemic claim is central to successful argumentation in student writing (Kelly & Bazerman, 2003). Peck MacDonald (1992) argues that the epistemology of a discipline is realised through linguistic practices, which in turn determine the kinds of agency this requires of writers. This sense of agency, according to Peck MacDonald, depends on how far writers are able to present knowledge claims as constructed and contingent rather than externally verified by outside agencies

> ...a writer's sense of whether or how "evidence" exists outside its construction by the writer should affect the writer's sense of agency. (Peck MacDonald, 1992:537)

Inexperienced writers, who are new to a discipline, may be unfamiliar with these practices and unable to assume an agency in their writing, relying on accounts of external sources to build their arguments. Peck MacDonald locates the sense of agency in a particular construction of grammatical subject. She writes '...a writer's sense of agency, in turn, involves the grammatical subject' (Peck MacDonald, 1992:537). This structure she associates with the building of disciplinary knowledge claims when it is utilized to reason using to the concepts, categories, abstractions or methodological tools of the disciplinary area. When the grammatical subject is used to present knowledge as constructed and contingent, she terms it an 'epistemic' sentence subject and hypothesises that students may find difficulty in creating these, and hence find assuming agency in their academic writing difficult. The importance of this resource to construing academic argumentation is given further support by Hewings (1999), who suggests that there is a developmental factor in students' use of epistemic subjects as third year geography students used more of these structures than first year students. Competence in using this resource enabled the students to argue using the 'ethos and epistemology' (Peck MacDonald, 1992:535) involved in the disciplinary practices. Peck MacDonald's use of ethos is similar to Hunston's use of ideology in the latter's

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discussion of evaluation in scientific research articles (Chapter 3.6.1). Ideology, Hunston argued, was constructed through use of source, averral and attribution. Therefore, a view of argumentation is developing in which ethos or ideology is constructed by a variety of linguistic structures which, authorities argue, needs to be learned by inexperienced writers.

Other research also identifies the construction of agency and the epistemology of disciplinary subjects as areas of difficulty for new entrants to a disciplinary community (Dias et al., 1999; Jones et al., 1999; Lea & Street, 1999; Scott, 1999). This research focuses not so much on how argumentation is construed linguistically but on the social motives and institutional practices of institutions in which the argumentation arises. Argumentation is viewed as a literacy practice subject to the ideology of the social institutions in which it takes place (Street, 1984). Literacy practices are conceived as events in domains of social life (Barton, 1991). These domains have their own 'ideological' model of literacy that assumes that 'the meaning of literacy depends on the social institutions in which it is embedded' (Street, 1984:8). Therefore, according to this body of theory, argumentation can only be understood in the context of the social practices in which it is acquired and used.

Investigation of the social practices of the workplace and the university leads Dias et al. (1999) to report differences in epistemology between student writing in the university and writing in the work place. Willard (1982) observes that different social purposes result in two different forms of argumentation: epistemic argumentation and instrumental argumentation. He proposes that epistemic argumentation, which persuades about the status of a truth claim, has a purpose internal to itself. In contrast, he observes that instrumental argumentation has a social motive beyond itself and uses persuasion to achieve a purpose external to itself. Dias draws on these distinctions to argue that student writers in professional courses, in which both professional and academic writing exists side by side, have to negotiate these differences. He draws attention to the dual social purposes of the students' argumentation within the university, which are to learn and to be assessed, and argues that this is another potential problem for all student writers. The epistemic status of their argumentation is therefore compromised. As Dias states

...in school [university] genres, the notion of epistemic applies to

the writer: the writing is assigned as an occasion for his or her

learning; it is typically not taken on as an opportunity to extend

the knowledge of a discipline or a community of scholars. (Dias et

al., 1999:45)

True epistemic argumentation, as defined by Willard (1982), is writing that extends the knowledge of a discipline. This suggests that, in the context of students writing in universities, issues of power might arise because the epistemic claims made by the students have to comply with disciplinary epistemology in order to meet assessment needs. Therefore, students have to take a stance that meets the institutional standards of truth in order to meet their other social motive of being assessed. As a result, their argumentation may be influenced or compromised by the requirements of the institution.

Dias's findings about academic literacy practices concur with Jones et al. (1999). In the introduction to their collection, these writers also identify epistemology, together with identity, as crucial issues in academic forms of literacy practice. Within the domain of academia, they consider epistemology to be:

what counts as knowledge and who has authority over it

and identity as:

what the relation is between forms of writing and the constitution

of self and agency. (Jones et al., 1999:xiv)

Lea and Street (1999) argue that it is issues of agency and identity rather than the level of writing technique that gives rise to conflict between tutors and students. Lea (1999) found that adult students in a distance learning course used argumentation to either reformulate the course knowledge or to challenge it. In choosing to reformulate received academic knowledge by referring to course concepts and terms, students did little to engage with the underlying epistemological issues of the courses, although, Lea adds, what in fact was reformulation was interpreted as 'academic socialisation' by the tutors. Lea found that other students created a dialogic reading of course texts, basing their knowledge claims on their personal professional and experiential knowledge, and

thus developed a challenge to the epistemological claims of the course. In doing so, they transgressed academic epistemological and identity conventions and so received little credit. Baynham (2000) contrasted appeals to professional knowledge and personal experience with appeals to theoretical knowledge in the written assignments in a graduate nursing course. He showed that students who draw on professional experience without sifting this through theoretical authority scored lower on assignment scores. I would suggest that these latter students, like Lea's students who challenge, are asserting agency in their argumentation by making independent epistemological claims. Both researchers locate the cause of the students' problems with argumentation within the theoretical framework of institutional practice. In both these instances, it is what the students consider to be knowledge and what they consider to be legitimate warrants for that knowledge that differs from the institutionally sanctioned epistemology.

In sum, research suggests that epistemology has implications for the way a writer evaluates; epistemology can be instantiated by choice of grammatical subject, and the choice of evaluative nominalisation in this subject position can provide the writer with agency. Research also suggests that epistemology is shaped by the purpose of the argumentation, whether it is epistemic as in university writing or instrumental as in the workplace. Studies of institutional practice argue that the 'ownership' of the epistemology of a discipline is problematic and that issues of power may be at stake in negotiating this between student and tutor and this may have implications for the present study.

3.10 Conclusion

I have argued in this chapter that the context of situation in which argumentation occurs influences argumentation in many ways. I argue further that the S.F.L. notion of register offers a way of theorising the relationship between context and argumentation. I would suggest that this, in itself, provides a more comprehensive understanding of argumentation than studies examined in Chapter 2. More specifically, it has been proposed that ideological and contextual influences shape the interpersonal positioning, the extent to which writers show commitment to their claims, the extent to which arguments are made negotiable, the way in which they identify sources which are used

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to support claims and the extent to which writers intrude in their argumentation. These findings provide support for the arguments made in Chapter 2 that written argumentation is best understood as being concerned with addressee/ addresser relationships and as 'virtual negotiation'.

Another aspect of the linguistic construal of argumentation is realising semantic relations in text. It has been argued that these are realised through conjunctive relations, which may be shaped by mode, and by nominalisation and grammatical metaphor. The latter have been shown to be particularly salient in construing business, administrative and academic argumentation, and influence the tenor of argumentation.

Studies reviewed also suggest that epistemology and institutional practices influence argumentation and this also has implications for the present study. This body of research argues that the purposes and goals of workplace argumentation, and of academic argumentation, differ and this may lead to conflicts associated with epistemology. Given that the participants in the present study are both practising managers as well as being management students, they may find conflict between their professional knowledge and the academic knowledge claims.

The studies discussed in this chapter lead to the hypothesis that the difference in context of situation between the computer-mediated argumentation and the institutionally sanctioned and assessed assignments will influence the argumentation in specific ways. The studies also suggest that these differences will be construed by choices of linguistic structures. This implies that a linguistic approach to argumentation is most likely to reveal significant differences and trace similarities between the two contexts for argumentation.

4 The Language of Computer-Mediated Discourse

4.1 Introduction

It was argued in Chapter 3 that one way to conceptualise argumentation is as an interaction between addresser and actual or reader-in-the-text addressee. In that interaction, the addresser attempts to influence the addressee's point of view and the ensuing argumentation is influenced by ideology and interpersonal factors. This chapter addresses the effects that the medium of communication has on this interaction and on the ideological and interpersonal factors involved in the interaction, and, hence, on the kind of argumentation possible.

The chapter will assess what research suggests about the influence of the medium, in the form of computer-mediated discourse, on language itself. Insights from S.F.L. concepts of register, and specifically of mode, are discussed for their contributions to an understanding of this influence. Research that discusses the competing influences of interpersonal, societal and technological forces in shaping the discourse is considered and the possible effects of these factors on shaping argumentation are assessed.

4.1.1 Defining the conference technology

There are two categories of conferencing technology referred to in the discussions of computer-mediated discourse (henceforth CMD) in this chapter: asynchronous and synchronous. As several studies find linguistic differences in the discourse produced by these two different technologies, these categories need to be described and defined. The current study focuses on asynchronous email communication, particularly subscriber conferences, sometimes called lists. There are two characteristics of these conferences that may influence the kind of argumentation in which the students engage. The first is that access to the conferences is limited to dedicated subscribers, and not open to the public and so there is a predictable known audience. The second is that the

asynchronous technology provides an opportunity for messages to be read and written 'off-line' which leaves time for editing and reflection. Synchronous forms of electronic communication take many forms but the essential characteristic is that messages can only be sent and received if both parties are 'on-line' at the same time. The significance of this synchronous form is that there is much less time for editing messages, and, perhaps, for reflecting on them.

4.2 The influence of mode

Many studies suggest that CMD has features of both written and spoken English (Baron, 1984, 1998; Collot & Belmore, 1996; Davis & Brewer, 1998; Ferrara et al., 1991; Murray, 2000; Yates, 1993, 1996). Murray describes these features as 'simplified registers associated with both oral and written language' (Murray, 2000:397). Collot and Belmore (1996:1) refer to the presence of both spoken and written modes in CMD as a new variety of English in which written and spoken modes coalesce. Baron (1998:135) argues that email hybridity is 'a creolizing linguistic modality, analogous to pidginization and creolization processes well known in spoken languages.'

Whether CMD is more like spoken English or more like written English, or a different register which has features of both, is significant for argumentation. This significance resides in the implications for meaning of the register variable of mode (Halliday, 1978). It will be argued that mode influences the kind of meanings that can be made and this will influence the nature of the argumentation in the CMD and assignments in the study.

In the present study, the physical means of production of communication is referred to as the channel or the medium of communication. Thus, the typed communication in the CMD is a medium of communication and a single-authored assignment is a different medium. Mode is a semantic notion and is not directly realised by any physical process of language production. It is different from medium because it realises the social action of a context and determines what role language will play in that situation. Factors in a situation that influence mode are the spatial and temporal relationship between speakers, hence, face-to-face communication uses visual signals in the form of gesture and

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expression, and oral language uses intonation to express meaning. In a typical interaction with an addressee who is physically present in the dialogue, temporal and spatial dimensions do not have to be explained. The meaning in such an encounter is contextually dependent. In conventional written communication, in which the audience is indeterminate and distanced in time and space from the writer, the language has to provide contexts of time, space and all the expressive work contributed by gesture, tone and facial expression. Again, the meaning is contextually dependent but in a different way. In this way, mode signals contextual dependency. This dependency is realised linguistically through the use of direct address, tense, pronoun usage, and implicit or explicit reference (Martin, 1992a:93). Mode also influences the types of THEME that can be used[10] (Halliday, 1994; Matthiessen, 1995:30) and influences textual cohesion (Martin, 1992a:404).

Given these influences of mode on language, Kress argues that the two channels of written English and spoken English facilitate the exchange of different types of meanings.

> The sequentially, temporally organised medium of sound is vastly
> different in its potentials of representation and communication to
> the simultaneously, spatially organised medium of graphic
> substance, as expressed in "lettered representation" in "literacy".
> Each makes possible certain kinds of things, in its particular way,
> and each prohibits certain things. (Kress in Snyder, 1998:55)

If the studies referred to at the beginning of this section are correct in their claim that CMD shows features of both written and spoken language, this has consequences for the meanings made within CMD.

Some authorities claim that the meanings that can be made in spoken English and written English are different in ways that have implications for argumentation. Many authorities claim that the syntax is different in speech and writing (Bygate, 1987; Chafe, 1982; Chafe & Danielewicz, 1987; Halliday, 1985b). Bygate (1987) and Chafe (1982)

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[10] Theme is the first part of a bi-partite division of the clause in English and has the function of organising the clause as message (Halliday 1994:38). Theme will be discussed in more detail in Chapter 6

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argue this is due to physical and cognitive differences in the production of speech and writing. When speaking, there is no time to organise ideas into complex sentences with subordinate clauses. This results in 'fragmented' syntax evidenced 'in the stringing together of idea units without connectives' (Chafe, 1982:38). Writing, by contrast packages more information and so, according to Chafe (1982:39) it is more 'integrated'. It also uses a greater lexical variety and less repetition of words. These features suggest that writing is capable of expressing more complex ideas.

Halliday also posits a difference in density between speech and writing, and argues that speech and writing have different ways of constructing complex meaning (Halliday, 1994:349). According to Halliday, lexical variety alone does not account for the differences in structure between these two modes. Written language has a large number of lexical items (content words) per clause, whereas spoken language is 'grammatically intricate: it builds up elaborate clause complexes out of parataxis and hypotaxis' (ibid 1994:350). Therefore, in order to construct the clause complexes, spoken language uses more 'function words' such as verbs, conjunctions and prepositions per clause (Halliday, 1985b:61). Halliday argues that the higher lexical density (proportion of lexical words to function words) in writing has evolved to meet social needs. These social needs are various, such as the necessity to package complex arguments in order to develop academic, scientific and administrative writing (Halliday & Martin, 1993).

The necessity to package information in academic writing may have consequences for the kind of argumentation possible in CMD, if the theorists are correct in claiming this discourse has features of both spoken and written forms. Halliday argues that the factor that most influences the use of grammatical metaphor is whether that text is spoken or written (1994:349). The place of grammatical metaphor in argumentation was discussed in Chapter 3, where it was argued that these constructions realise the abstract impersonal forms of argumentation found in academic and scientific writing. This implies that the spoken mode may employ less abstract impersonal argumentation. It also indicates that other functions of nominalised forms, such as employing nominalisation to develop reasoning chains in Theme position are less likely to occur in spoken modes of English. It is therefore argued that these mode differences may influence argumentation in a medium that is judged by many authorities to be a hybrid

form of the written and spoken mode. This has consequences for the present study as it may indicate that argumentation in the CMD is very different from that in the assignments, and therefore the way students argue in the computer conferences may not develop their ability to argue in ways appropriate to academic forms of argumentation.

4.3   The language of CMD

The implications of the hybridity of the mode of CMD was investigated by Yates (1993; 1996) and his findings have consequences for argumentation in this medium. He found that the mode of CMD combines spoken and written forms, and argues that this register is the result of the influences of the social purposes of the writers rather than the exigencies of the technology. Thus, it follows that complexity necessary for academic argumentation is possible in CMD.

Yates found significant differences between corpora of written English, CMD, and spoken English in grammatical and lexical deployment and in interpersonal positioning. He applied aspects of Halliday's (1985b) and Chafe's (Chafe, 1982, 1985; Chafe & Danielewicz, 1987) theories of written and oral English by comparing lexical variety, lexical density, pronoun usage and modal verb usage in three corpora: the Lancaster-Oslo/Bergen (LOB) corpus of written British English, the London-Lund (L-L) corpus of spoken British English and an Open University asynchronous email listserv conference, CoSy. The corpora of writing and speech was composed of a variety of registers of English and the corpus of Open University CoSy computer-mediated conferences was composed of discussions of academic courses and other concerns of an academic community.

The results of the comparison are significant for the current study. The first difference Yates identified is the type/token ratio of lexical variation. The number of different words in a text is referred to as the number of tokens while the number of repeated words is the types. The ratio of type to token is an indicator of lexical variety in a text. The results of Yates' study shows CMD is much closer to the written corpus (LOB) than the spoken corpus (L-L) in a comparison of lexical variation. Therefore, CMD uses a much greater variety of vocabulary than speech, as Table 2 shows.

Table 2: Mean type/token ratios in the three corpora

CMD	Writing	Speech
CoSy	LOB	L-L
0.590	0.624	0.395

(After Yates (1996:34)

An analysis of lexical density (see Table 3) based on Halliday's theories of mode differences between speech and writing (discussed above) showed that the lexical density in the CMD corpus is again closer to the written corpus.

Table 3: Mean weighted lexical density in the three corpora

CMD	Writing	Speech
CoSy	LOB	L-L
44.99%	46.07%	35.99%

(After Yates (1996:37)

This led Yates to conclude that:

> CMC users package information in texts in ways that are more written- than speech-like. (Yates, 1996:39)

He also argues that, because of the facility for editing off-line, and, hence, taking time over the composition of messages, the differences between the CMD and written corpora in lexical density and lexical variety cannot be due to speed of production. He therefore concludes that it is due to different social purposes of the modes of communication.

The finding that lexical density in the CMD corpus is closer to that of the written corpus also implies that nominalisation is a possibility in his data. Overall, Yates' findings suggest that expressing complexity in a written form in CMD is possible.

Two other findings in this study suggest differences in addresser/addressee relationships between the three modes, CMD writing and speech, and these differences add weight to Yates' claim that the language of CMD is a consequence of social action and the social purposes of its users. He found differences in the deployment of pronouns that imply

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there are differences between the corpora in the ways in which speakers/writers construe agency and subjectivity and hence aspects of argumentation (see Hyland, 2002a; Ivanic, 1997). The findings indicate similarity between CMD and spoken English in the use of 1st and 2nd person pronouns.

Table 4: Pronoun use as a proportion of each corpora

	CMD	Writing	Speech
	CoSy	LOB	L-L
1st person and 2nd person pronouns	64%	27%	58%

After Yates (1996:41)

The implication of these findings are that in the CMD corpus, the subjectivity of the writer is much more visible than in the written corpus and this indicates a much more interactive text.

Comparison of the use of modality in Yates's corpora showed that CMD also behaves differently from the other two modes. Using Coates' (1983:28) semantic groupings, Yates (1996:42) found the use of modals in CMD to be significantly higher than that of either speech or writing, with writing the lowest usage of all. Yates found most similarity between modal usage in CMD and speech and he writes 'the contextual use of modal auxiliaries within CMD is comparable to that of speech' (Yates, 1996:45). This finding is in keeping with much greater 'visible' presence of the addresser in the language of speech and CMD, as noted above, and overall, marks the CMD corpus as interactive with high writer involvement.

Not all theories of computer-mediated communication endorse the view that the register of CMD is reflecting social purpose. Ferrara (1991) and Segerstad (2002) discuss the language of CMD as more a construct of the technology and not as much a consequence of the wider social relations between addresser and addressee. Though they are persuasive in claiming that the language found in synchronous systems, in which rapid exchange of messages occurs, is heavily proscribed by physical requirements and by the technology, this does not account for all their findings. Thus, Ferrara (1991) identifies

language structures that she calls reduced features, for instance, shortened words and omissions of subject pronouns and copulas. She claims that these features are typical of language that is 'produced under real-time constraints' (1991:18) and, as her data is taken from 'the least planned but most interactive kind of CMC' (ibid:14), this is likely. She also finds examples in her data of what she describes as written language. 'It shows frequent use of relative clauses, adverbial clauses, and subordination' (ibid:24). Her technologically deterministic theory provides no explanation for why her participants would choose to include more elaborated written-style language together with the reduced note-like language. This is especially so as she points out that the editing facilities of the technology do make this more elaborate language possible. Segerstad (2002) assumes a similar point of view. She categorises specific language features of synchronous and asynchronous systems, including telephone texting, but accounts for these in largely technological terms. Her data reveals differences in language between emails and conventional letters on similar topics sent to a government body. Like Ferrara, her analysis of the differences is based on the influence of technological constraints on the language and do not provide an account of the social purposes of the writers. This again seems an incomplete analysis given that the writers of email have the facility to write in the style of a letter.

There is much, therefore, to support the argument that the language of CMD reflects the social purposes of its participants. Yates's findings suggest that these social purposes seem to include involved presence and interactivity. A study by Collot and Belmore (1996) gives further support to this theory. Collot and Belmore apply Biber's (1988) factor analysis to a large corpus of public bulletin board systems. These are open conferences in which members of the public can post messages exchanging information about a specific topic. Their particular CMD corpus showed more factors associated with involvement production in Biber's textual dimension of informational versus involved production. This study moves away from making a distinction between spoken and written language because Biber eschews the notion that written and spoken language construe different meanings simply on the basis that they are different channels of communication. This is in contradiction to Kress (1998), Halliday (1985b) and Martin (1992a) who, it has been shown, argue that these two media have mode differences that result in different linguistic features. Biber (1988; 1989) argues that it

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is both the differences in communicative situations and the functions for which language is being used that correlate with specific clusters of linguistic features, not whether it is in the spoken or written mode. He, therefore, categorises language along six functional dimensions in which characteristic linguistic features co-occur or are mutually exclusive. Three are of particular relevance in the current study. Biber describes dimension 1 as identified with language structures associated with conveying information. Along this dimension, there is a distinction between language structures that are associated with a distanced authorial presence and those associated with high authorial involvement. The latter has several characteristics, including a relatively large number of private verbs such as 'believe' 'feel 'know', first and second person pronouns, contractions, hedges and amplifiers (Biber, 1989:8). It is significant that Collot and Belmore found that their CMD data 'is replete with indicators of involvement' (1996:22) even though the primary purpose of the bulletin board conference is to provide a forum for passing on information. This suggests that the form and context of CMD entails this involvement between writer and reader. In Biber's Dimension 3, situation dependent vs explicit, the CMD 'lies between the two extremes' (Collot & Belmore, 1996:23). Again, the register shows features of spoken English associated with situation dependency, in which the audience can ask for specification if needed. Finally, Collot and Belmore's data scored highly in Dimension 6, which denotes informality in communication. In this dimension, there is a 'co-occurrence of features marking informational elaboration in relatively unplanned types of discourse' (ibid:25). Again, Collot and Belmore found that CMD is associated with informality of expression. A significant finding is that in Dimension 4, 'Overt expression of persuasion', the data scored very highly for intense expression of appraisal and for features which showed the speakers'/writers' attitude. This finding supports Yates's findings about modality and supports the view that CMD invites expression of attitude, which is a component of argumentation.

Another finding by Collot and Belmore strengthens the claim that it is the mode of communication rather than the technology alone that accounts for the particular language features of CMD. They compared messages composed off-line, and therefore edited in advance, with those composed on-line, and found that their features were similar.

Though the discussion so far has emphasised the social purposes of the writers as being the prominent influence on the register, the consistent findings that there is a high level of modality and involvement in the language of CMD needs further discussion. The concept of mode encompasses the influences of the technology of communication and there is evidence that the technology of CMD does influence aspects of the discourse. The way in which this influence occurs is not the keyboarding means of production, as scholars cited above argue. Studies suggest that it is the dialogic context created by the technology that results in high levels of writer involvement in the text. This, in turn, influences the tenor of the interactions. Uhlířová (1994) argues that email messages have linguistic features that show close contextual boundedness to messages just received and this is in contrast to the relative context independence. This relative independence between respondents refers to the distance in time and place so that the writers share neither the same time context nor the same situational context. Consequently, they are not bound to the pragmatics of conversation. Uhlířová is therefore implying that the contextual boundedness is constructed entirely by the dialogic technology. She found evidence in the emails in her corpus that the dialogic potential of the technology contributed to shortening the social distance between parties (Uhlířová, 1994:276) Her corpus was one hundred and fifty email messages sent to and received from various respondents by two producers. In this corpus, she identified a high use of direct address, pronouns, and implicit reference in the messages. Typically, the conjunctions used between sentences were the least explicit, usually 'and' and semantically more or less redundant, with phrases and sentences linked together as in speech. Use of first person pronouns was ubiquitous and each message usually had one topic, rather like a turn in a conversation. She argues that the contextual boundedness is partly due to the topic management of the emails. While some topics were introduced as new topics occurring at the beginning of messages, in other cases, the message started 'in the middle' with an implied reference to the previous message occurring partway through. This kind of message assumed a shared knowledge of, and concern with, the topic of the exchanges. She claims that in the academic email conference sites:

> The close, dialogue-like topic continuity of subsequent e-mail
> messages between two parties presupposes a maximum common
> ground, restricted not only to shared knowledge and shared

experience up to the moment of the message, but also shared attitudes, social status, intents, desires and a striving for interactive, cooperative, highly economic and friendly communication (Uhlířová, 1994:279).

In this way, the contextual dependency, discussed as an aspect of mode in 4.2 above, creates a more intimate context of communication in CMD, and this potential for intimacy is a consequence of the technology.

In sum, it has been seen that the mode influence of CMD supports language which has characteristics of both spoken conversational English and written English. However, this mode enables a lexical density similar to written language and this implies that CMD has the potential to support complex argumentation. The research reviewed also reveals modality in CMD associated with expressions of attitude. It also indicates that high levels of writer involvement and features of interactive text are a consistent feature of the CMD in the studies reviewed. All these features are conducive to argumentation, though they do suggest a register that is different from that associated with the formal, distanced register commonly associated with academic argumentation. As Yates observed, the medium can be used to meet the social purposes of the communicants, so there would be no reason to prevent writers using a formal academic register. However, the evidence so far is that they seem to use a register that is interactive and involved.

4.4 The influence of the interactive technology of email and email conferences

The studies discussed in section 4.3 have all taken their evidence from the language of CMD itself. The studies reviewed in this section focus on the addressee/ addresser relationships that the interactive technology creates and the effects of this technology on the organisation of text and the coherence of the discourse developed in multi-party computer conferences.

Studies indicate that the technology of the sending, retrieving and storage facilities of email shape the communication. Ambiguity of audience is identified by Moran (1998)

and Mulholland (1999). This is a consequence of the ease of copying, which, it is claimed, results in the writer not knowing in advance how many readers there will be of her message. Ambiguous 'from' lines resulting from copying practices also obscure the actual source of the document. These practices lead Moran (1998:18) to note a seeming contradiction that email gives the 'illusion' of intimacy while actually the writer has little control over what actually happens to the words. Mulholland points to the copying practices leading to an 'an overt kind of intertextuality' (1999:69) in which emails forwarded with forwarder's comments on them are read as 'double-texts.' This takes two forms. Mulholland reports that the attachment facility of email enables users to forward material with the minimum of comment, and thus provide no summary of the attached messages, leaving the respondent to interpret the attachments unaided. The second form is to copy a message so that the respondent reads the original message but the sender comments extensively on the copied message. Thus, there are two messages, the original and the comment. Another scholar, Werry (in Herring 1996:15), argues that the practice of quoting parts of existing messages in a new message, then responding to it, leads to 'an illusion of adjacency in that it incorporates and juxtaposes (portions of) two turns -- an initiation and a response -- within a single message.' None of the studies reported here comment on whether these technological affects enhance communication or detract from it but they do suggest that the technology changes it.

There are suggestions that the temporal order of sending email messages may be leading to new forms of addressivity. One of the ways in which addressivity may be changing is a consequence of the temporal sequencing of messages. Email systems do not reproduce the temporal sequence of face-to-face conversation because messages do not arrive in the order in which they were sent. This is particularly salient in list-serve conferences in which multitudinous messages are sent so that the writer has to identify the message to which he is responding. According to Herring (1999), this temporal incoherence leads to forms of addressivity in which frequent use of names and anaphoric reference to a previous message is used to make a coherent connection. Davis and Rouzie (2002:4) suggest that this practice of naming and reference 'represents a kind of adjacency pair' in students' asynchronous email discussions. The incoherence of the exchanges caused by the temporal sequencing leads to a greater use of direct address. Direct address using the recipient's name is used at the beginning of

messages more frequently than direct address is used in conversational English (Wilkins, 1991). Wilkins argues that this is a factor that produces the friendly tenor in public bulletin board conferences. Davis and Brewer found that chiming, in which students in their study reproduced words and phrases from the message to which they were responding, created cohesion and this again enhances the intimacy of the communication (Davis & Brewer, 1998:17).

Another feature of the conference technology is the weakening of local relevance to a previous message. Carter (2003) in a study of on-line argumentation suggests that the dialogic technical context of a public bulletin board led to the use by the participants of a new schema for argument. When participants in the argumentation responded to a message they included claim, warrants, grounds; that is, all parts of an argument schema. Carter points out that in face-to-face conversational practice, a turn would include just part of an argument schema. He concludes that the non-congruent schema occurred because of the difficulty of linking messages with previous messages. Likewise, Condon and Cěch (1996) found that local relevance to previous information is weakened in CMD and so writers in business email put into one message a whole series of orientation/suggestions. This is in contrast to the usual practice in conversation of posing a problem (orientation) then waiting for a response, then following up with a suggestion. Weakening local relevance to previous information disrupts topic maintenance and topics decay quickly in open access email discussion sites, according to Herring (1999). She argues that topic decay in asynchronous list-serv conferences is due to lack of feedback which occurs when participants compose responses to a topic simultaneously, without knowing what (or even that) others are writing. Therefore, many topics do not receive feedback and disappear.

So far, the technical environment of email and on-line conferences have been presented as having negative consequences. Herring disputes this and argues that the persistence of the message in written form enables participants to cope with this chaotic flow of messages:

> The availability of a persistent record of the conversation renders
> the interaction cognitively manageable, hence off-setting the

major negative effect of incoherence in spoken interaction.
(Herring, 1999:2)

She argues that computer conferences and email technology leads to a richness of communication not available in any other medium. In a computer conference, messages accumulate quickly, unlike in conversation, where turn-taking conventions generally allows one message to be responded to at a time. This leads to reduced feedback to each message and a loosening of adjacency pairs. This does not deter from the potential for meaningful communication, however. According to Herring:

Reduced feedback and loosened adjacency enable a qualitatively different kind of interaction from that possible in spoken conversation. (Herring, 1999:17)

Not all scholars agree with this. Loosened adjacency may cause not only temporal incoherence but also logical incoherence in on-line argumentation. Hewings (2004) and Kear (2001) note that the inability to establish good practice in the use of subject headers led to problems in keeping track of the multiple topics in on-line learning in a university course. Consequently, developing logical argumentation was difficult. When students used the threading facility to its full potential, longer argument threads were found in the conferences. Further evidence of the lack of logical connection between points in an argument conducted on-line is reported by Davis and Brewer (1998). They describe their students' problems in trying to reconstitute the logical shape of a conference from printouts. This suggests that the feature of 'incoherence' identified by Herring may not be temporal incoherence but logical incoherence. Logical incoherence has consequences for argumentation.

This section seems to indicate that addressivity is changed by the technology, disrupting patterns of turn-taking, ways of addressing other participants and ways of maintaining interaction found in face-to-face conversation. There is evidence that this leads to complex intertextuality and more overt ways of referencing other participants, which, in turn, results in an involved tenor. The conferences may result in rich and complex exchanges but also render the maintenance of topic and maintenance of a logical argument more difficult. The loss of both temporal and logical coherence, plus topic decay and loss of local relevance may have adverse affects on argumentation in this

medium. There seems to be evidence that the mode is producing new schemata to enable participants to adapt to the exigencies of the technology. There is also evidence that the reported friendly nature of email exchanges in computer conferences may be a consequence of the dialogic nature of the technology. This in itself may lead to productive argumentation, given cooperative groups are productive of argumentation (see 2.4). Therefore, the technology may contribute to argumentation as well as cause some difficulties and this question will be addressed by the present study.

4.5 The influences of the wider community

Computer-mediated discourse is not sealed off from other aspects of life and all CMD is practised as part of a wider community. This section considers in what ways CMD is influenced by the wider community.

Murray (1988:399) observed that CMD is just one of several media of communication shared by a speech community, all of which reflect the linguistic and non-linguistic norms of that community. Mulholland (1999:74) suggests that the minimalism she finds in emails in her business data has historical foundations in office memos. A study by Gains (1999) suggests that tenor characteristics of CMD are dependent on the speech community in which the discourse is produced. He found differences between individual email messages in a business context and individual email messages sent to one academic at an English university. The business community rarely used any opening greetings at the beginning of the message, relied on the page header layout of the email system to announce topic, and both recipient and sender used what Gains calls semi-formal tones. The business data also contained very few features of conversational discourse in their emails. By contrast the academic corpus contained features of conversational discourse, greetings at the beginnings and ends of messages and a more informal style. A study by Gimenez (2000) of both business emails and business letters contradicts Gain's findings that business emails were formal and contained few conversational features. Gimenez comments on the diversity he found in his data of business emails by hypothesising that familiarity between recipient and sender increased the features of informality in the emails. In another study of business emails, Sherblom (1988) argues that status in a business influences the addressivity of

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email messages because subordinates sign their messages in the body of the message and those higher in rank do not. As the analysis is based on this one feature, this study gives a only a limited account of how status affects CMD but shows that relationships in a discourse community can lead to heterogeneous linguistic construals of tenor. In all, these studies provide contradictory answers to the question of the influence of wider discourse communities on the CMD.

Herring (1996) also reports the influence of societal norms on the schematic organisation of arguments in email messages. She analysed two academic listserv email conferences using semantic rather than lexico-grammatical analysis of the language of the email messages. This analysis led her to identify two different kinds of schema for argumentation: 'aligned variant' and 'opposed variant'. In the aligned variant, the opening stage of the messages agreed or aligned itself with views expressed in a previous message. This is followed by a middle stage, in which non-critical expression of the writer's views occurs. Herring reports that these are often expressed as an opinion rather than a fact, as a question, a suggestion or an expression of feeling. Thus, they avoid categorical commitment to an opinion. The message ends with an appeal for continued discussion. In the opposed variant, the opening stage of the message links to a previous message by disagreeing with the opinion expressed in that previous message. The writer then, instead of building supportively on that opinion, expresses critical views and ends the message without appealing for further opinions. Herring attributes these two styles to both gender and the influence of a discourse community, but concludes that the influence of the discourse community is stronger. She found that in the email conference in which the contributors were predominantly women, the aligned variant schema tended to dominate. The converse was true in email conference in which men predominated where an opposed variant schema was most common. However, in this listserv conference, in which men predominated, women contributors adapted their style to the dominant style of the conference. She therefore concludes that the values of the discourse community held sway over gender communicative patterns.

Herring's schema is based on a semantic rather than a lexico-grammatical analysis. Gruber (2000) applies a lexico-grammatical analysis to three data sets: two academic email conferencing facilities used by academic linguists, linguistic research articles and

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a discussion section of an academic journal concerned with linguistics. Using Fairclough's (1992) theory of discourse, he argues that there were features of interdiscursivity, intertextuality and generic relations shared by all the data sets, thus suggesting that the email conferences were part of an order of discourse, that of academic linguistics. There were, however, significant differences in generic structure between the three data sets.

In Fairclough's model, the concept of intertextuality covers 'all instances of reference to previous texts in an academic text' (Gruber, 2000:85). The concept of interdiscursivity accounts for the different meanings and impact that intertextuality has for various generic structures, that is, the different discourse conventions on which genres are based. Genre, in Fairclough's (1992) model, is associated with activity types which are specific structured sequences of actions, therefore academic papers, book reviews and scholarly discussions are considered as different genres (Gruber, 2000:83). Using this model of discourse, Gruber applied Halliday's (1994) concept of Theme (see Chapter 6.3) to investigate functional and structural differences between the different data sets. He proposed that the discourse to which the individual texts in his corpus belong will influence 'ideational theme realisation insofar as it constitutes a 'common background' of all texts under investigation' (Gruber, 2000:90). Genre characteristics will 'mainly influence structural theme choices and interpersonal aspects of a text' (ibid:83).

He found that there were two categories of Themes, those found in all the data in his corpus and Themes that were genre specific and so found only in specific texts. The first type he termed Concepts as Theme. He argued that these could be viewed as the general 'discourse background' of all the texts and showed that all texts shared features of the discourse type 'academic discussion'. These Themes were topical Themes realising concepts associated with the academic field, (see (a) below) and complex Themes, which have a structural similarity (ibid:104). Complex Themes are shown in (b) below, and have textual and other Themes preceding the topical Theme.

(a) Concepts as Theme:

Past work on co-narration \ has not explicitly considered retold stories

(b) Complex Themes:

<u>But, paradoxically enough, it</u> \ is easier to air one's disobedient views about Galizan in an international forum like LINGUIST

The other category were Theme types found to be genre specific (Gruber, 2000:104) and pointed to major differences between his data sets. The Discussion section of the linguistic journals and the email conferences shared Themes not found in the linguistic research articles. Personal pronouns, names of writers, reference to places of work and scholarly communities occurred as Themes in these two data sets. 'Empty' Themes *there* and *it* and interpersonal Themes also were more frequent. He concluded that these Themes realised a more dialogic text with more overt writer involvement and a more vernacular style. The deployment of simple conjunction as textual Themes in the email conference data set led Gruber to observe that this represented a conversational style in the on-line communication. A finding that prepositional phrases as Theme were very infrequent in emails, seems to mark a difference associated with the difference in mode between the CMD and the written journals:

<u>In an extensive review of literature,</u> Langellier (1989) conceived of personal narrative as a boundary performance

The underlined part of the sentence in the example sets the context for the message. This context setting, which these Themes provide, is required in journals, where no conversation with the writer is possible, but not so necessary in the context of the dialogic email conference. A final finding was that the CMD revealed a high number of expressions of authors' attitudes in Theme position.

Therefore, Gruber argues that each genre is systematically differentiated by mode characteristics and by the social purpose of the writers. The study offers strong evidence that the register of the CMD is influenced by the values of the wider discourse community.

As the studies reviewed in this section have shown, the relationship between the values and practices of the community in which the CMD originates, and the nature of the CMD itself, is not straightforward. How far the conventions of the wider discourse

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community can over-ride the close contextual boundedness, intertextuality and other features found to be common in CMD is not indicated by the research reviewed, though there are indications that the values of the wider community do influence CMD. This consideration has relevance to this thesis. The student participants are expected to engage in argumentation in their computer-mediated conferences in preparation for writing assessed assignments in management studies. It would therefore seem important that they engage in values from the academic discourse community in their argumentation. How far the mode of CMD makes this possible is not known and this may be revealed by the present study.

4.6 Conclusion

This chapter addressed the language of CMD and suggests that CMD is a mode of communication which, research fairly consistently reports, has characteristics of conversational English and written English. This mode combines the interactive, involved features of spoken conversation with the potential of writing in a register conducive to academic forms of argumentation. The evidence does seem to suggest that the technology, as one aspect of mode, does shape the communication in ways described in this chapter. There is also evidence to indicate that CMD is, like all other communication, situated in social practices and subject to the writing conventions of a community. This latter evidence is not conclusive, however. Gruber's study showed that his CMD data set shared a discourse with the other data sets but there were distinct generic features that marked the CMD as different from the other academic forms of writing in his corpus. The relevance of the relationship of CMD to speech and writing, the influence of the technology and the relationship of the CMD to the wider community are very relevant to the present study. The influence of wider community values and conventions of argumentation on CMD has implications for how far the disciplinary conventions and values of business studies will influence the students' conferences in the present study. If these values do not have much influence, then the usefulness of this kind of learning for academic writing is questionable. This is an issue addressed by the present study. The findings reported in this chapter suggest not only that the students' argumentation may have different register features in the two different

environments, but also that the argumentation in the CMD may be shaped by the mode in specific ways.

5 Arguing and learning in CMD

This chapter will focus on the pedagogic use of computer-mediated discourse and review studies of argumentation in computer-mediated collaborative learning situations. In order to examine the findings of this body of knowledge, the chapter opens with a brief review of the pedagogic theories that lead educators to encourage students to collaborate on-line in electronic conferences.

5.1 Collaborative learning.

Collaborative learning has its origins in Vygotskyan sociocultural learning theory (Vygotsky, 1986), theories which conceptualise learning as apprenticeship in communities of practice (e.g. Lave & Wenger, 1991), activity systems theory (e.g. Dias, 2000; Engestrom, 2002; Russell, 2002) and student-centred learning philosophies (e.g. Dewey, 1991/1938). These theories eschew a model of learning as transmission of a body of knowledge from a teacher to students in favour of a model in which students construct meaning through the mediation of teachers and fellow students. The process by which this happens is disputed. Different authorities give different emphasis to the part played by the social group in making meaning and the part played by the individual cognitive construction of each student, but all these theories emphasise the role of language in learning.

Aspects of Vygotskyan theory (Vygotsky, 1978, 1986; Wertsch, 1991), such as scaffolding and mediation, are widely used in analyses of student interactions in Computer Supported Collaborative Learning (henceforth CSCL) (e.g. Gunawardena et al., 1997; Howell-Richardson & Mellor, 1996; Volet & Wosnitza, 2004). Vygotsky equates higher order thinking with hierarchical logical operations. These operations are the internalisation of systematically defined concepts that are learnt through conversation with more knowledgeable members of the community. By internalising these forms of talk, learners come to organise that knowledge or concept for themselves, and thus are socialised into culturally constructed higher forms of thinking. It is to this process that Freedman and Pringle (1994) refer when they discuss cognitive

development in relation to learning to write argument (see Chapter 2.5). It is while these concepts are being internalised that mediation from others provides scaffolding, that is, supports the learner in filling out and gaining understanding of a concept (Ninio & Bruner, 1978) which enhances the learning.

Other theories of collaborative learning do not necessarily repudiate this Vygotskyan sociocultural view, but emphasise the societal dimension of communities of practice in which learning is scaffolded by the wider community. The theories of Lave and Wenger (1991) and Rogoff (1990) are based on an apprenticeship view of learning in which students are inducted into a community. Lave and Wenger conceptualise knowledge as beliefs held by a community who share ideologies and practices, of which some are discourse norms. Novice members of the community have to participate in legitimate peripheral participation as they learn these discourse norms and practices. Knowledge is viewed as culturally derived concepts and processes that are acquired in a variety of ways and in this conception of learning, transmission teaching plays only a small part. Lea and Nicoll (2002) use the concept of apprenticeship in a community of practice as a component in a wider concept of how learning occurs in distance education. This is referred to as distributed learning. Students learn in many ways when they are separated by great distance from the university. They learn from the printed material, from contacts with tutors and other students, from face-to-face interaction and electronically mediated interaction. The web-systems built for the students use a variety of hypertext technologies to provide platforms for a range of sources on which the students can draw for information. In addition, students have access to the World Wide Web and other, private sources of information. In professional courses, distance learning students in particular have their own daytime occupation with its own sources of information on which to draw. Thus, learning is distributed, and students make their own selections to build up concepts. The learning community as a whole 'apprentices' them and it is all mediated by language.

5.2   Characteristics of computer-mediated argumentation

Many scholars support the belief that an important aspect of collaborative learning in computer-mediated environments is engagement in argumentation (Andriessen et al.,

2003; Hara et al., 2000; Henri, 1995; Koschmann, 2003; McConnell, 1994). Some studies in this field (e.g. Baker, 2003; Hara et al., 2000; Veerman, 2000) report findings in which it is difficult to get learners to produce well-elaborated arguments. Baker (2003) reports that only a quarter of the accumulated interaction was coded as argumentative. However, Baker used a cognitive-conflict notion of argumentation that views learning and argumentation as a process of challenging previously held beliefs through dialectic moves in argumentation (see Chapter 2.3). Another problem is that his study was of school children in a science lesson so not comparable with the present study.

A more comparable study is Veerman (2003) who studied the argumentation of university students, though, again, the comparison is not close, as the students in the present study are all professional adults. Veerman reported that only about a quarter of the postings in the computer conferences were argumentative dialogue moves and she discounted all other interactions as not part of the argumentation. Koschmann (2003) points out that there is no objective measure of how many argumentation moves are possible in human interaction and still maintain a conversation, and, thus, casts doubt on the usefulness of her findings. He suggests that a more productive way of approaching argumentation in computer-mediated collaborative learning environments is one based on Deweyan (1938) notions. Thus, Koschmann views argumentation as joint enquiry in which the goal of argumentation is to produce collaboratively, 'well reasoned judgment' (Koschmann, 2003:266). This is close to the model based on Habermas's principles (1984) offered by Wegerif and Mercer (1997) and discussed in Chapter Two. McConnell (1994) also bases his model of argumentation on Habermas's principles of communicative rationality and uses these as a way of describing the argumentation of students who are very comparable with the students in the present study. He reports on the argumentation of students in an electronically mediated distance education Business Management Course offered by the Open University. Based on Habermas's principles, he argues that the students take a critical perspective to their academic and professional work in their on-line computer discussions.

More detailed studies of the nature of the argumentation in computer-mediated conferences suggest that there are some common features in the way students argue on-

line. Students appear to avoid challenge or direct disagreement with other participants (Curtis, 2001; Davis & Rouzie, 2002; Marttunen & Laurinen, 2001). Researchers variously ascribe this to aspects of the technology, processes in stages of argumentation and issues of social presence and interpersonal relations. Reporting on a distance education university course that used asynchronous conference technology, Curtis noted the absence of challenges to the input of other students in his data and argues that this is due to the students not knowing each other before the course and never meeting face-to-face. This inhibited more robust exchanges that, he asserts, would have occurred in face-to-face situations.

This point is partly supported by Marttunen and Laurinen (2001) in a study that compared what students learned about arguing in two environments: face-to-face argumentation and asynchronous email argumentation. They claim that students who argued in face-to-face groups improved more in providing strong counter-arguments, while students who argued using email improved more in providing good grounds in their argumentation. The analysis did not research the actual messages themselves or the language used in the face-to-face discussion. The researchers based their claims on the tests administered before and after the students argued in the two environments. In these tests, making counter-arguments and developing grounds for claims were treated as discrete skills. In spite of this rather problematic methodology, the researchers found that counter-arguments are not a strong feature of CMD, a characteristic of on-line argumentation supported by other studies. The researchers' explanation of the differences in development between the two groups is technologically deterministic, as they suggest that the students who learned argumentation skills by using asynchronous email had time to read the argumentation of fellow participants because their communication was text-based. Thus, they were able to build better arguments based on more grounds. This does, however, point to a way in which the collaborative conferences in the present study may contribute to the argumentation in the assignments. Their explanation of the reasons for the face-to-face group developing strong counter-arguments is also technologically deterministic. They suggest that the students in the face-to-face group did not have the time in the fast flow of face-to-face argumentation to consider grounds in detail. However, they have no explanation for the students in the face-to-face group being able to develop counter-arguments. Unlike

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Curtis, (2001), they do not consider interpersonal factors in the differences between the two contexts for argumentation.

Characteristics similar to those described by Curtis and Marttunen and Laurinen were found in a study of argumentation in which both asynchronous and synchronous technologies were used. Davis and Rouzie (2002) report that students employed far more challenging behaviour in the form of counter-arguments and more provocative statements when arguing using synchronous technology than when they argued in an asynchronous environment. The researchers accounted for this by the different technologies of each system. In the synchronous system, the researchers argue, students are able to discern more easily the reactions to their statements, and hence, they suggest that the students are more likely to risk face-threatening actions (Brown & Levinson, 1987). Davis and Rouzie suggest that in the synchronous environment the context was one in which

> Gathered together they could feel each other's verbal presence.
> (Davis & Rouzie, 2002:7)

However, another significant finding was that the length of messages and the development of the argumentation in terms of supporting reasons and evidence were very limited in this synchronous environment. Though the researchers do not advance reasons for this, it supports the findings of Marttunen and Laurinen above concerning the lack of developed grounds in face-to-face arguments. Davis and Rouzie's findings suggest that speed of production, which occurs in a synchronous environment, makes it very difficult to develop supporting argumentation for claims.

Davis and Rouzie's study also supports Curtis' and Martunnen and Laurinen's findings reported above that asynchronous conferences in computer supported learning environments might inhibit counter-arguments. Davis and Rouzie found that the messages students posted in the asynchronous conference referred in a supportive way to a previous message; thus they seemed to associate themselves with its propositions. Then, in the body of the message, they added qualifications, so that a hidden form of disagreement emerged. Davis and Rouzie (2002:4) call this 'associational disagreements' and I would argue that this form of argumentation has a similarity to

Herring's 'aligned engagement' discussed in Chapter 4.5. In Herring's schema, the participants avoid a direct conflict with the respondent in an on-line argument, and begin each message by acknowledging the respondent's points of view in a positive way, but show that they take a different point of view by presenting their own argument in the body of the message, without overtly contradicting the respondent's view.

There is evidence in Davis and Rouzie's study that students' on-line communication avoids constructing arguments that employ reasoning if this reasoning entails challenging the other participants, even though the students have proven ability in other modes to argue well and construct counter-arguments. Davis and Rouzie suggest that argumentation in informal contexts needs time to establish mutually acceptable grounds, which they claim are

> ...the discursive norms that enable conversation to develop and
> discourse communities to evolve. (Davis & Rouzie, 2002:8)

They argue that the students have not had long enough familiarity with each other to establish shared grounds for their argumentation, thus implying that the tenor of the exchanges is important in developing argumentation.

All these studies support the view that argumentation in educational asynchronous conference environments is constructed so that open challenges are avoided. This view is further supported by research into social presence in CMD. This body of research argues that the lack of social cues and other features of the technology result in participants constructing subjectivities that may be different from those they construct in other forms of communication. Lay use of the Internet in open public virtual sites can result in participants abandoning their sense of self (Turkle, 1995) and assuming a persona which de Kerckhove (1997) describes as 'a formidable expansion of psychological size.' It is well documented, however (e.g. De Kerckhove, 1997; Gackenbach, 1998; Turkle, 1995; Wallace, 1999) that a group with a strong sense of purpose enables the participants to establish an identifiable presence, and educational conferences come into this category. Therefore, Conrad (2002) argues that learners in a distance-taught, electronically mediated Canadian university course maintained a tenor in their on-line interaction motivated by the 'learners' personal sense of etiquette'

(ibid:202). This etiquette includes remaining silent when they strongly disagree with another contributor in order to maintain a friendly and supportive tenor. This inhibits challenge to some of the propositions made by other students in their on-line discussions. Though a student admitted to 'stirring things up' (ibid:204), by which he meant making strong propositions in the on-line discussion, he consciously avoided challenging other students' opinions too fiercely.

Further to this, the research into the influence of the asynchronous technology on the language of CMD, discussed in Chapter 4.4, indicates that this medium can construe an intimate and friendly tenor, although findings cited above suggest that time is needed to build relationships. This technological influence, plus the reported attitudes of students taking a distance education course, may contribute to a style of argumentation which Smithson and Diaz (1996), referred to in Chapter 2.3, call collaborative argumentation. Their notion of collaborative argumentation involves participants reasoning together rather than against each other. This view also inevitably rejects the social conflict theory of argumentation and seems to accommodate a sociocultural view of learning proposed by Wegerif (1997) (see Chapter 2.4) and account for the 'associational disagreement' reported by Davis and Rouzie (2002).

Findings by Hara et al. (2000) add further support to the influence of interpersonal factors on argumentation in educational uses of CMD. Using contents analysis, they categorised messages in a student on-line conference into social and cognitive, and further categorised cognitive messages into higher order thinking skills of inferencing, comparing, contrasting and clarifying. Two findings are relevant to the present study. Social messages predominated at the beginning, but, by the end, cognitive messages predominated. This finding may give support to the view that participants need to establish relationships before risking argument. The other relevant finding was that inferencing occurred at the beginning of the discussion, while judgement occurred at the end. The researchers account for this as follows:

> It seems natural that early presenters state their ideas, insights, and
> opinions whereas later contributors judge and contrast these
> comments. (Hara et al., 2000:23)

Another reading of these results suggests that judging and contrasting were regarded by the students as face-threatening and likely to be construed as a challenge to other students opinions, and hence were slow to emerge in the discourse.

All the studies considered in this section give support to the view that CMD in educational contexts has the potential to be a medium for argumentation and that this argumentation may have certain characteristics. The studies seem to indicate that the interpersonal relationships of the on-line educational context militate against forceful counter-arguing. Students seem to develop an 'associational' form of argumentation.

The present study is also concerned with the influence of the on-line argumentation on the subsequent writing of assignments, and studies that provide evidence of this are considered next.

5.3 The interface between computer-mediated argumentation and individually written assignments.

Although the interface is very specific to some forms of higher education, several studies have investigated this connection. Coffin, Hewings and Painter (2003) analysed aspects of students' argumentation in an Open University distance learning course. This study, unlike many of the others so far reviewed, treated argumentation as a discourse rather than sets of ground rules in a normative model, or as types of cognition. The students' on-line argumentation and their follow-up written assignments were analysed using the S.F.L. theory of APPRAISAL (Martin, 2000). They concluded that electronic conferences enable students to rehearse the linguistic resources of stance that are needed in writing academic argumentation (Coffin et al. 2003:23).

Similar findings were reported by Morgan (1996). Using notions of dialogic and monologic rhetorical presentation (Faigley, 1992), Morgan found that, in a writing class of freshmen (sic) undergraduates, the activity of reading and discussing drafts of each other's literature essays, through the medium of CMD, led to what Morgan defined as a move from a monologic stance in their first drafts to a dialogic stance in their final drafts. The final drafts contained many more references to other viewpoints and

responded to other viewpoints. It is possible to infer that these later texts were more interactive (see Chapter 3.4), and that their arguments were more numerous and elaborated. Morgan identified another change between the first and final drafts that, so far, has not been identified as either a function of on-line conferences in educational situations or as a possible advantage of these conferences. He found that students gradually acquired the subject specific terminology of literary criticism and a secure understanding of these terms by attempting to use them in the conferencing. They then included these terms in their final drafts. This finding suggests that the pedagogic use of computer-mediated conferences may induct students into disciplinary discourse.

Lea (2001) reports a similar development in a computer-mediated conference in a university course. Using the theoretical viewpoint of situated practice (Street, 1984) (see Chapter 3.9), Lea found that practices that students use in their writing in their computer-mediated conferences, utilizing the distinctive technology of asynchronous conferences, enable them to acquire academic disciplinary norms of argumentation (Lea, 2001). In a study of students taking a graduate distance education university course, Lea found that participants were able to adjust the way in which they presented their arguments between the multi-party argumentation of CMD and their single-authored conventional assignments. Lea focused on features of disciplinary written genre and noted how the literacy practices of students' writing in CMD contributed to the development of their disciplinary writing. These practices included making meaning in their message through reference to other students' points of view, investing authority in other students' messages; investing authority in others' messages in written assignments; and incorporating messages into written assignments. Aspects of asynchronous technology already discussed in this chapter - the persistence of a digital record of the conference and the asynchronous form, which allows time for reflection - led to reflective writing that was later incorporated into their assignments. Therefore, specific practices found in academic writing, such as referencing sources and actively constructing a disciplinary epistemology, were identified by Lea as being developed in the CMD and contributing to disciplinary ways of writing. It should, however, be noted that research also suggests that the relations between writing in the multiparty conferences and the single-authored assignments in university courses may be problematic. As Goodfellow et al. (2002) indicate, writing in the environment of

multiparty electronic discussion followed by writing the assignments may produce conflict in terms of purpose, audience and student orientation:

> The relationship between writing for on-line discussion and writing for assessment on TESOL Worldwide (E841) was characterised, for some students, by a shift from the dialogic rhetoric of co-constructed understanding, to that of official or sanctioned knowledge, as expressed in a formal, monological, academic writing style. In this, the monologically oriented assessment processes took precedence, displacing the more complex, dialogical, rhetorical strategies of the on-line discussion. (Goodfellow et al., 2002:33)

Lea (2001), characterises this move from the multiparty on-line discussions to the single-authored assignments as one in which the students draw on different practices:

> disciplinary communication with peers online draws upon a different set of ground rules, resulting in a different type of writing. (Lea, 2001:17)

These differences she identifies as 'a much less personal and experiential stance' in the single authored assignments:

> The ideas, originally presented in the message based on [students'] ideas now become embedded in the more impersonal style of the sentence. (Lea, 2001:16)

How far students find the move from arguing in the CMD to arguing in the assignments problematic is an issue addressed in the present study.

The studies discussed here do give some support to the notion that writing in computer-mediated conferences provides help to students when they come to write their assignments. There is evidence here of students learning and rehearsing the arguments of their discipline in the on-line writing. Other practices associated with academic argumentation such as attribution of sources was also rehearsed in the conferences. Differences caused by the demands of the disciplinary discourse community and by the

different purposes and social context in the two modes may, however, cause difficulties for students.

5.4 Conclusion

The research reviewed in this chapter seems to suggest a very complex relationship between the technology, the relationships set up between participants in educational on-line conferences and argumentation in CMD and in conventional assignments.

Educational computer-mediated collaborative conferences do provide a potential for argumentation, but there are suggestions that this argumentation may have specific characteristics. Without assuming a technological determinism, it does seem that CMD, in the form of email or computer conferences, exhibits features that promote a more involved tenor. There are indications that the tenor of a computer-mediated conference used for educational purposes may influence the argumentation so that participants avoid open disagreement. This 'associative' form of argumentation seems closer to the cooperative models of argumentation of Smithson and Diaz (1996) and Mercer and Wegerif (e.g. 1999) (Chapter 2.3 and 2.4) rather than the protagonist/antagonist cognitive conflict models of argumentation. How students argue in the present study is a question to be addressed.

The studies discussed in this chapter indicate that learning to take a stance in written mode, becoming more secure in the use of disciplinary taxonomies, learning to argue through reference to other's points of view, learning to refer to sources, and actively constructing a disciplinary epistemology are features of academic writing which may be learned through computer-mediated conferences. The evidence is conflicting on how these resources transfer from the on-line argumentation to the conventional assignments. The difference between the students' on-line argumentation and the argumentation in the assignments is a question addressed in this study. Whether students find this transition problematic is also addressed in this study.

6 Theme in Argumentation

6.1 Introduction

Research indicates that Theme analysis may offer a way of differentiating between forms of argumentation in the CMD and in the assignments. The research discussed in this chapter suggests that Theme is a motivated choice that has an interpretive or contextualising function and is also a resource for developing topic or field in a text. As such, it could be considered a valuable resource for construing argumentation. In the literature, there are several different bodies of opinion about the realisation and functions of Theme, plus a chronological development in understanding the realisations and functions of this language resource. The research reviewed shows that later scholars build and develop on earlier work. These different influences will be discussed as they affect what can be claimed about the role of Theme in the construal of argumentation.

6.2 Theme and first position in the clause

A definition of Theme is problematic because it is only known by what it does and it is not the property of any specific language constituent. This ineffable characteristic (Halliday, 1988) leads scholars to focus on its realisation in text and how it functions in discourse rather than on a definition (Fries & Francis, 1992:46). There seems to be a general consensus, which began with the earliest proponents of Theme, that it is one part of a bi-partite division of the clause, the second part being Rheme, for example, Weil (1844), cited in Ping (2003), and Mathesius (1939). The exception to this is Firbas (1964; 1992), who does not consider every clause to have a bi-partite division. He proposes that there can be several degrees of Communicative Dynamism conferred on words and phrases within one clause and this may blur the boundary between Theme and Rheme.

Most scholars of Theme in English, with the exception of the Prague School, propose an association between Theme and first position in the clause, or left-fronting. Associating Theme with first position is significant for the meanings promoted by

Theme choice because first position is seen by several scholars to be a rhetorically important position in English. Brown and Yule (1983) and Sinclair (1985) attest to the importance of first position in units of text above the clause level. Sinclair observes that what comes first in the sequential process of speaking or writing constrains all that follows:

> ...each utterance sets the scene for the next. No matter what it is, the way it will be interpreted is determined by the previous utterance and in particular by the immediately previous one.
>
> (Sinclair, 1985:15)

Fries (1983) itemises the importance of first position at several syntactic levels. At the level of phrase, the deictic word in a nominal group comes first, anchoring the phrase in relation to its co-text. Likewise, at the level of clause and sentence, there are many grammatical ordering rules for regulating first place. These are found, for instance, in passivization, in questions and in the use of relative pronouns and conjunctions. He argues that 'thematic structure means what it does because of the selections from the range of lexico-grammatic options available for first position' (Fries & Francis, 1992:47).

Brown and Yule (1983) prioritise first position by making it a formal property of Theme, which they define as 'left-most constituent of a sentence' (1983:126). Thus, unlike systemic theorists, they provide a recognition criterion for Theme. Like Sinclair and Fries above, they argue that what appears in first position in discourse beyond the syntactic level of a sentence influences the interpretation of everything that follows (1983:133). They also argue that the constituent that is thematised by virtue of its left-most position is

> ...what the sentence is about,' regardless of whether or not the constituent is the grammatical subject. (1983:132)

They would therefore argue that this is so even in sentences such as Example 15, where the left-most constituent is an adverbial phrase.

Example 15: Left-most constituent as Theme
In both organisations, the development of information technology and systems has revolutionised the way performance is viewed and measured. (Elenna.tma1.cl.44)

Whether the underlined constituent is 'what the sentence is about' is a problem identified by more recent studies, but by making first position a property of Theme, Brown and Yule seem to have narrowed the potential for what meanings Theme can construe in a clause and in a developing text. This is a problem returned to later in this chapter after reviewing Halliday's view of Theme, as the basis from which to develop the discussion of that problem.

6.3 Halliday and Theme as first position

In Halliday's view, Theme is not defined by its position. Theme, together with Rheme, which is all of the constituents which follow Theme, organise the clause as message (Halliday, 1994:38). As the organiser of the message, Theme is part of the information system within the language and as such is the first part of a lineal wave of information moving through the clause (ibid 1994:296). This pattern is associated with the other information system of the clause, Given/New.[11] According to Halliday, these two patterns of information are typically related to each other as shown in Figure 4

Figure 4: The relationship between information systems in a clause

Given   ⟶   New

diminuendo   crescendo

Theme   ⟶   Rheme
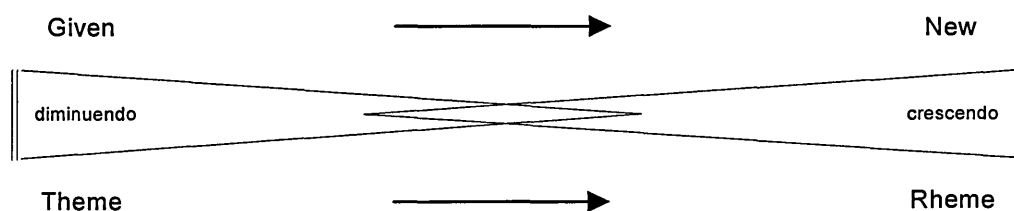
(Adapted from Halliday, 1994:337)

In the diagram, the first point of prominence is the Theme, which Halliday considers to be the speaker oriented prominence because it is information with which the writer chooses to start the message (Halliday, 1994:336). It is argued by Halliday that in the linear progression through the clause, the concerns of the listener become more prominent as the writer focuses the new information and in an unmarked, typical realisation, the main focus of New information is at the end of the unit (ibid:336). Therefore, according to this view, in a typical realisation of the message in a clause, Theme is placed at the beginning of a message in English. To this extent, Halliday's view of Theme is a positional one, but it is not a formal definition of Theme.

These positional relationships are also considered to hold true for clause complexes and at paragraph and larger text level by some scholars. A clause complex is 'an independent clause together with all hypotactically related clauses which are dependent on it.' (Fries, 1994:229)[12] and in this thesis, Theme at clause level, and in clause complexes, is the focus of the discussion, while the thematic potential of hyper and macro-Themes, which function thematically over larger spans of text, (Martin, 1995a, 1995b) are not included. The term 'sentence' is used only if this word is used by the authority to which I am referring, as was the case in the discussion of Brown and Yule's conception of Theme above.

Figure 4 gives support to the importance of first position in a clause and provides an explanation of Halliday's glosses of the function of Theme as 'the point of departure' (Halliday, 1967:212), and as 'the starting point of the message....the ground from which the clause is taking off' (Halliday, 1994:38). The association of Theme/Rheme with Given and New provides support for arguments about the way in which Theme functions to contextualise information in New which are made by Matthiessen (1992; 1995), and discussed later in this chapter.

Halliday considers Theme to be a property of the transitivity system and argues that if there is no transitivity, there can be no Theme/Rheme organisation of the message. Thus, Theme in a clause extends up to and includes the first transitivity[13] constituent in the clause. This can have the function of subject, complement, adjunct as circumstance and, in the imperative, predicator. The constituents of Theme are the nominal group, adverbial group and prepositional phrase plus some non-finite phrases.

Halliday considers that much of the rhetorical function of Theme is a result of writers making choices about congruent and non-congruent realisations. The conflation of Theme with subject in a declarative clause is the most congruent realisation and, hence,

---

[11] The Prague School (Daněs, 1974) identify utterances as having the order Theme^Rheme but do not distinguish Theme from Given.

[12] See section 8.1

[13] The system of transitivity has to do with the way clauses are structured to represent experience and is concerned with the types of processes each clause construes: material, relational, mental etc.

is considered the unmarked option (1994:44). Marked options are when the Theme is other than the subject in a declarative clause (ibid 1994:44). Example 16 shows examples of marked and unmarked Themes in a declarative clause according to this view of Theme:

Example 16: Theme in a declarative clause.

Subject (Topical Theme) Unmarked	The company \ is a primary aluminium smelter (Elenna.tma1.cl.8)
Attributive complement (Topical Theme) Marked	Here \ is my first attempt (John.8/11.13.11.cl.2)
Circumstantial adjunct (Topical Theme) Marked	At IM \ there is no formal measurement system in place. (Martin.tma1.cl.45)

The Themes are underlined and all constituents following \ are Rheme

As this does not account for the thematic motivation of left-most constituents that are not part of the transitivity system (see Example 17), Halliday proposes that constituents that do not play a part in the transitivity system, 'may not exhaust the thematic potential of the clause' (1994:52). He identifies these as conjunctive and modal adjuncts, conjunctions and relatives (ibid:52). Based on this, in Example 17, Theme extends to the first transitivity element and includes any constituents that are not part of the transitivity which occur before that element. After the first transitivity element, Halliday argues, thematic potential is complete. Therefore, in the example, the underlined elements form a multiple Theme.

Example 17: Multiple Themes

so	maybe	the big investment houses	acted as an external change agent
textual Theme conjunction	interpersonal Theme modal adjunct	Topical Theme subject	Rheme

(Mike.3/6.18.18.cl.8)

Where Theme is mapped onto a participant in the transitivity of a clause, Halliday sees a relationship between the experiential element and the notion of sentence topic:

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Since a participant in thematic function corresponds fairly closely to what is called the 'topic' in a topic-comment analysis, we refer to the experiential element in the Theme as the TOPICAL THEME (Halliday, 1994:52).

This conflation of Theme with the notion of topic may explain the other account of the function of Theme provided by Halliday, who also argues that Theme is 'what the clause is about' (1985a:35).

He states that other Themes which precede the Topical Theme realise textual or interpersonal meaning, as illustrated in Example 17. This mapping of metafunctions onto clause elements leads Matthiessen (1995) to argue that the Theme/Rheme organization of the clause shapes ideational and interpersonal meaning into information that can be shared between writer and reader.

The discussion so far has indicated that first position in English is a powerful rhetorical resource, as it is associated with Theme and hence is speaker oriented. However, the discussion of Brown and Yule's view of Theme also suggests that there are problems when Theme is delimited to the first constituency in the transitivity. These problems are discussed below.

6.4 Delimitation of Theme

In the constructed Example 18, the Theme (underlined) is a circumstance adjunct and, as such, it is the first transitivity element in the clause. As was argued above, in Halliday's view, thematic potential is complete at this point, yet it is argued by many scholars that, in clauses such as these, the second constituent also has theme potential (e.g. Berry, 1996; Downing, 1991; Matthiessen, 1992; Ravelli, 1995)

Example 18: realisation of Theme according to Halliday
<u>In my business,</u> \ during the winter, employees take lots of sick time

Scholars have also argued that in clauses such as Example 15 and Example 18, in which the first transitivity constituent is a circumstantial adjunct, the Theme does not encode 'what the sentence is about' though it is 'the starting point of the message'.

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Discussion of these issues involves considerations of the extent of Theme potential along the linear flow of information in the clause and considerations of different functions for different mood constituents when these are motivated as Theme.

Both Matthiessen (1992) and Ravelli (1995) argue for an extension of Theme beyond the first transitivity constituent, but each for different reasons. Matthiessen observes that, in such sentences as Example 18, 'experiential Adjuncts may pile up at the beginning of the clause and the effect is clearly one of successive Thematic contextualisation' (Matthiessen, 1992:50). He argues that 'the Thematic prominence of the clause gradually decreases as the clause unfolds' (1992:51) and proposes a diminuendo effect should be applied to Theme, in which thematic potential gradually diminishes as information flows through the clause. He also argues that the dimuendo effect could, in certain clauses, extend to the grammatical subject, which may still have thematic prominence. Unlike scholars to be discussed later, he does not argue for an obligatory role for the grammatical subject. He says that judgement about when the grammatical subject is motivated as Theme depends on the co-text and the method of development (Matthiessen, 1992:51). His reference to method of development does seem to imply a local development of the topic through the grammatical subject but Matthiessen does not develop this point.

While agreeing with the wave notion of text and its diminuendo affect, Martin (1992b:152) argues that, for practical purposes, it makes more sense to 'segment the wave'. Matthiessen (1992) and Ravelli (1995) are (at the dates referred to[14]) proposing an extension of the Theme beyond the first experiential constituent, based on a wave notion of the information flow in the clause, and not on a notion that the grammatical subject has any obligatory role as Theme. This solution solves the problem of the extent of Theme in clauses with multiple circumstantial adjuncts, but does not provide a solution to how Theme can be 'what the clause is about'. Halliday associated Theme with topic (see above) and several scholars argue that topic in English is associated with subject, leading to an argument for making the subject in a clause an obligatory Theme.

6.5 Theme, main participant in the process and topic

Ravelli (1995) argues for the essential role played by subject as part of the mood block in determining the thematic status of constituents which come before the subject. She therefore argues that Theme should extend to grammatical subject. Applying a dynamic view of language, in which she conceptualises language as constantly being composed and renewed, Ravelli argues that the Theme in a clause cannot be delimited until the mood block is established by the choice of the grammatical subject. At this point, Theme in that clause is exhausted as the wave of information expands into Rheme. Given the crucial role of grammatical subject in this process, Ravelli extends Theme to include grammatical subject. She argues that it is an obligatory Theme, but only in relation to defining the contextualising functions of the most left-fronted constituents. What Ravelli does not argue is that grammatical subject should be considered as an obligatory Theme because it has a specific function in developing the topic of discourse. Nor does she argue that it should be considered an obligatory Theme because of its function in realising the field in the discourse.

Downing supports a notion of Theme extending to include the main participant in the clause. She defines this as 'those constituents which have a syntactic relationship with the mood block of the clause as subject or object' (Downing, 1991). In support of this, she argues that the participant is the constituent most responsible for telling us what the clause is about (Downing, 1991:119). Her argument is similar to those made earlier in this chapter that not all of what Halliday calls Topical Themes carry out this function. Yet, as the point was made earlier, one of Halliday's views of Theme is 'what the clause is about' in a quotation discussed earlier and reproduced here:

> Since a participant in thematic function corresponds fairly closely
> to what is called the 'topic' in a topic-comment analysis, we refer
> to the experiential element in the clause as the TOPICAL
> THEME. (Halliday, 1994:52)

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[14] The Introduction to this chapter made the point that there is a chronological development in views of Theme.

Halliday seems to be choosing his wording from another sentential understanding of topic. In that view, according to Hockett (1958:201), the sentence in English is composed of topic and comment; topics are usually subjects and comments predicates. In the extract above, Halliday does not specify any clause constituents which instantiate the topic, referring to it as just 'a participant in thematic function' (Halliday, 1994:52), not a transitivity participant which has a thematic function in this clause. Hence the extract suggests that all Topical Themes, marked as well as unmarked, can realise 'topic' and many scholars object to this.

One of the problems is that the term 'topic' is fraught with confusion (Thompson, 1996; Vande Kopple, 1991). The meaning of the term 'topic,' exemplified by Hockett, is one of the reasons that the notion of Theme and topic are confused because, in this view, first place in the sentence is regarded as the topic. Enkvist (in Vande Kopple, 1991) uses the term 'topic' to refer to "referentially or semantically linked constituents of different clauses or sentences" (Enkvist, 1973:129) and Brown and Yule refer to an intuitive notion of what topic is:

> The notion of 'topic' is clearly an intuitively satisfactory way of
> describing the unifying principle which makes one stretch of
> discourse 'about' something and the next stretch about something
> else. (Brown & Yule, 1983:69)

This intuitive notion of topic they refer to as discourse topic. They define it as a cognitive schema (i.e. the organisation of thoughts into schemes of things) that can compress a whole text into a single proposition (e.g. titles of books, articles, lectures). They then go on to distinguish between discourse level topics and sentential topics that focus on the topic of an individual sentence (ibid 1983:71). Berry (1996) develops a notion of topic as the prioritised meaning of the text which is the main concern of the writer. This she equates to Brown and Yule's discourse topic, and suggests that the clause Theme, usually the grammatical subject, establishes and maintains the topic of a stretch of discourse (Berry, 1996:50). Davies (1988:177) argues that one of the functions of Subject in a clause is to identify topic, and she glosses topic as "the intuitive notion of 'what the clause is about'". She discriminates between clause topic and discourse topic, and glosses discourse topic as 'what a particular stretch of text is

about (which may be more than one 'thing')' (ibid 1988:177). In this, she seems to follow Brown and Yule. She also states that the accumulation of the same clause topic or related topic as Subject in a stretch of discourse is the primary way in which continuity of coherent discourse is achieved (1988:177). Therefore, Davies does not problematise the notion of topic, but equates it with a function of the grammatical subject and uses the term as the pretheoretical notion to mean 'what the sentence is about'. Peck MacDonald (1992) recognises that there are degrees of variability about the use of the term and focuses on subject position in a clause, which she argues is

> ...the most important spot for determining what a writer is writing
> about and how questions about epistemology, construction, or
> agency enter into a writer's thinking. (Peck MacDonald,
> 1992:539)

Hence, she focuses on the grammatical subject without considering formal notions of topic. Downing (1991) faces the problem of the variability in the meaning of the term topic by following Brown and Yule in distinguishing between discourse level topics and clause level topics and argues that the main participant in a clause is 'what the message is about' at clause level:

> ...a 'main participant' in a clause' will currently represent the
> current 'basic level' topic over a certain span' ...And it will be
> found this 'main category' is more often than not the Subject.
> (Downing, 1991)

Therefore, there seems to be a general agreement amongst the scholars that grammatical subject or main participant in a clause does, in a non–formal sense, realise the concern of the message and, in this sense, is the topic of a clause. This is given further support by a finding that in a corpus of scientific texts, a higher proportion of keywords occurs in Theme and that these words form more links through Theme (Peng, 1997). Keywords in Peng's study are considered to be those words indicative of the main topic of that text, or what the text is about (Peng, 1997:47). The finding that 'keyness' and topic continuity are associated with Theme gives credence to the association between Theme and informal notions of topic.

Although grammatical subject, or main participant, are recognised as an obligatory Theme and associated with the topic of a text by Downing (1991), Davies (1988) and Berry (Berry, 1996), as discussed above, views about the actual grammatical constituents which form the topic of a clause and how this entity influences the method of development of discourse differ.

Downing disassociates Halliday's Topical Theme from topic, and proposes instead a bipartite notion of clause Theme. In this conception, marked Topical Themes, interpersonal and textual Themes all have a different function from unmarked Topical Themes.

> I would therefore suggest a dissociation of Theme in the sense of
> 'initial element' from topic...Theme may coincide with topic in
> the same wording, just as it may coincide with Given, but they are
> different categories. Topic will identify what a particular part of
> the text is about, while Theme (or initial element) represents the
> points of departure of the message. (Downing, 1991)

In this conception, constituents that are concerned with the central proposition of a clause are called Individual Participants. These, as noted above, have a syntactic relationship with the mood block of the clause as subject or object. Downing considers object in initial position (as complement) to be a Topical Theme because, as a participant in the mood block, it is part of the same semantic structure as subject. Individual Participants are agentive, being concerned in the 'action' in the clause (ibid :126) and 'tell us what the message is about'. As such, they function to provide an Individual Framework for the message.

> ...it can be seen that 'individual frameworks' are those which tell
> us what the message is about, whereas the others do not have this
> function. Within individual frameworks, participant Subjects
> usually establish the local topic, telling the reader what the
> immediate message is about....Fronted Complements establish an
> attribute of the topic. (Downing, 1991:141)

Marked Themes form Circumstantial frameworks for the message, and interpersonal and textual Themes provide a discourse framework for the message (ibid:128). Though

several other authorities also suggest discourse frameworks through which Themes function, Downing specifies that it is the participant in the process and not just the grammatical subject that functions to produce the Individual framework. This conception marks her apart from other scholars, who specify an obligatory Thematic function for grammatical subject in the development of topic (e.g. Davies, 1988, 1994, 1997; Gosden, 1993; Mauranen, 1993; Montemayor-Borsinger, 1999).

Rose (2001:127) concurs that Theme is bipartite and argues in a somewhat similar vein to Downing that circumstantial Themes have a text staging function while participant Themes form identity chains. Martin and Rose (2003) argue that Subject is an obligatory Theme. Theme in writing is

> ...everything up to and including the participant that functions as the Subject of the clause...Ideational meaning that comes before the Subject is referred to as marked Theme and has a different discourse function from ordinary Subject/Theme... (Martin & Rose, 2003:178)

They do not specifically associate the function of Subject/Theme with topic but write that it gives the basic orientation to the field and provides continuity for the discourse. Therefore, they focus on the register notion of 'field' rather than the discourse notion of 'topic' (ibid:178). Davies argues for an extension of the boundary between Theme and Rheme by making Subject an obligatory element in Theme (Davies, 1988:177) because, she argues, Subjects have an additional but equally obligatory semantic function of identifying 'topic' in the clause. She also argues that the re-occurrence of a particular Subject develops the topic of the text and the coherence of the discourse as a whole. She concurs with other scholars that Theme has the two potential functions. Davies's views of these functions are those of 'identification of *Topic*, realised by Subject, and provision of *Contextual Frame*, realised by elements preceding the Subject, i.e. Circumstantial Adjunct and/or modal or conjunctive adjuncts and conjunctions' (Davies, 1997:55). She specifies that the lexico-grammatical realisation of Subject Theme is the grammatical subject of the clause. Other structures, such as anticipatory 'it' and existential 'there,' do not realise participants and therefore she

considers they function as the contextual framework. (In example, Example 19 the coding of Themes follows Appendix 2)

Example 19
It is important that **the communications aspect of an organisation** \ does not let it down in this respect. (Elenna.tma.cl.76)

Example 20
There is no doubt that ..... (Davies, 1997:56)

Another view of a bipartite Theme is Mauranen (1993). The role of Theme, according to Mauranen, is as a local organiser of discourse (ibid:101). It has the role of providing the point of departure for the current sentence and of establishing its relevance to the preceding sentence. This bipartite division of Theme into an element concerned with topic continuity and a fronted element that has a contextual or orienting function she calls orienting Theme and Topical Theme. She bases her argument on Sinclair, who suggests that each sentence contains the meaning of the previous sentence through encapsulation and hence represents the current state of the text. This meaning then prospects the next sentence. It is the role of the experiential Theme to maintain this topic continuity. In order for this to happen, the experiential or Topical Theme 'must have relevance to the preceding discourse' and the experiential Theme that is concerned with providing the point of departure for the current message is the one that carries the topic. Though Mauranen dismisses the notion of discourse topic, she relates one element in clause Theme to 'topic' or 'what the message is about'

> When topic 'pure topic' as it were, is analysed as a semantic
> element in sentences (expressing what the sentence is about), it
> appears to have a preferred position, which is immediately before
> the finite verb. (Mauranen, 1993:99)

She adds that when this element is fronted by other elements, such as circumstantial adjuncts, these cannot be also considered as topical for text continuity and cohesive reasons:

> ...texts which have perfectly good topical continuity would
> appear disconnected if such fronted elements were regarded as
> their topics. (ibid 1993:99)

The lexico-grammatical realisation of the Theme that provides the topic continuity, the 'topic' of the clause, is called Topical Theme by Mauranen and includes existential 'there' but not anticipatory 'it' or reporting clauses. The way of distinguishing the Topical Theme is that the Topical Theme carries the propositional relevance of a sentence to the previous sentence (Mauranen, 1996:214). She also excludes complements from Topical Themes because these cannot fulfil the role of prospection.

These studies, in their various ways, therefore support a view of Theme in which motivation extends beyond the first transitivity constituents, if these are adjuncts. They also support a view that gives an account of Theme as 'what the clause is about' and as such, they develop a view of the function of Theme in developing the topic or the field of a text.

6.6   Contextual and orienting functions of Theme

Specifying an obligatory Thematic role for main participant or grammatical subject entails specifying a separate role for constituents that come before these in the clause. It has already been suggested that these elements have a contextual or orienting function (see Downing, Davies and Mauranen above). Downing specifies that these Themes set up two semantic frameworks, a Circumstantial and a Discourse framework. Circumstantial frameworks set up a point of departure for spatial temporal and situational semantic frameworks, which hold over the following clause or clauses and are realised by a variety of adjuncts including dependent structures. Discourse frameworks set up subjective and logical frameworks, realised by modal structures and conjunctive structures. Discourse frameworks therefore help to construe stance and logical patterning in the text.

Gosden (1992) proposes that experiential constituents that precede the grammatical subject set up a semantic framework. He proposes that these frameworks realise primary semantic notions such as conditionality, purpose, contrast/concession and are realised by conjunctive and modal adjuncts, prepositional and adverbial phrases and subordinate and non-finite clauses. These functional categories subsume textual Themes and circumstantial Themes and some interpersonal Themes, so the analysis is not at this level

of delicacy. They do, however, support a role for contextual frameworks in realising logical patterning and stance.

Mauranen does not consider contextual frames as semantic categories. According to Mauranen, the main function of a contextual or orienting Theme is to form a bridge between sentences to enable prospection (Sinclair, 1982, 1992) when the preceding sentence has not provided an interpretive framework for topic continuity. Therefore, Mauranen interprets the function of pre-subject elements as enabling topic continuity and text coherence rather than setting up a semantic framework. She does, however identify an attitudinal or modal role for orienting Themes even when their orienting function is unnecessary. In Example 21, Mauranen is claiming that the orienting Theme *It is possible that* in the second sentence is unnecessary for topic continuity because the first sentence prospects sentence two without the 'bridging' Theme. Therefore, its selection by the writer emphasises the writers' hedging of the proposition. (The orienting Themes are in italics and the Topical Themes are in bold and Rheme is marked by \.).

Example 21
Although prostacyclin can be generated by the placenta, **the source of the increment in prostacyclin biosythesis during pregnancy** is uncertain. *It is possible that* **it** \ represents a vascular response to platelet activation. (Mauranen, 1993:112)

Studies therefore support a view that constituents occurring before the main participants in a clause are Theme but their thematic function has an orienting or contextualising function. Downing, Davies and Rose suggest that this function has influences beyond the clause or clause complex.

6.7 Theme and method of development of text.

Discussions so far in this chapter suggest that many scholars consider that Theme choice influences how texts develop. Halliday (1985a:314) regards Theme/Rheme as a resource that gives 'texture' to a piece of discourse, 'without which it would not be a discourse' and argues that the patterning of Themes through a text constructs its register. Matthiessen (1992) endorses this view of Theme/Rheme as providing 'texture' and he regards Theme/Rheme organisation as a primary resource of the textual metafunction.

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Fries argues that the information contained within the Themes of all the sentences of a paragraph creates the method of development by construing patterns of specific semantic meanings through the text. He adds that

> ...the information contained within the themes of all of the
> sentences of a paragraph creates the method of development of
> that paragraph. (Fries, 1983:135)

As examples, he identifies spatial relations and comparison and contrast as rhetorical patterns construed by Themes/Rheme by applying a concept of Theme in which Theme is segmented after the first experiential constituent (1983). Though this application of Theme theory reveals patterns useful for discerning the rhetorical structure of a text (Thompson, 1996), it is limited. Other aspects of the writers' rhetorical choices and the method of development of the text may be invisible because of the limitation of Theme to the first experiential constituent.

This can be shown by an examination of Fries's (1983:126) analysis of a text he describes as a pseudo-narrative, in which the interior of a house is described as if the reader is being shown around (see Table 5).

Table 5: Theme analysis of a pseudo narrative

Theme	Rheme
As you open the door	you are in a small five-by-five room
When you get past there, if you keep walking in that direction	you're confronted by two rooms in front of you...
And on the right side,	straight ahead of you again is a dining room....
And even further ahead of the dining room	is a kitchen....
And the back	the farthest point of the kitchen is at the same depth....
In other words the dinette and the kitchen	are the same length as....
Now if you turned right before you went into the dinette or the living room	you would see the bedroom...
And if you keep walking straight ahead	directly ahead of you, you would find a bathroom
And on your left	you would find the master bedroom....
And there are closets	all around

(Fries, 1983:126)

Fries's Theme analysis reveals the spatial semantic pattern construed by the constituents of Theme, and this reflects one purpose of the pseudo-narrative which is to construct a virtual tour of the house. This analysis of semantic patterns does not account for what may be another important aspect of this text, the relationship between 'the reader-in-the-text' and the 'voice' showing them the layout of the house. Another way in which the virtual tour is realised is by forging an interactional relationship between the 'voice' in the text and the reader. This aspect of the method of development is achieved by choice of subject Themes, of which there are five occurrences of *you* . Hence, five out of the ten Topical Themes are pronouns construing the reader-in-the-text. Only two explicitly encode place and only one position. Though Fries attests that the function of grammatical subject is irrelevant (Fries, 1983; Hasan & Fries, 1995), I would suggest that taking account of the grammatical subject seems to reveal significant information about the method of development.

A view of how Theme constructs the texture of a text and its method of development is provided by the notion of logogenesis. This is the change in language use as a text unfolds. It is somewhat similar to the notion of method of development as used by Martin (1992b) but is specifically concerned with the instantiation of the language system as writers make selections within that system (Matthiessen, 1995). Matthiessen argues that there are different patterns of expansion through Theme for factual and persuasive texts. He writes that Theme contextualises and expands information flowing through the clause in ways specific to the text type. This happens because the Themes in a text operate as points of logogenetic expansion of the message as it passes through the clause. Clausal Theme can therefore be envisaged as a local growth point:

> Through THEME the textual metafunction gives value to some term (node) in the instantial system as the current point of expansion or growth. From the listener's point of view, this is the node which s/he can take as the point of departure in building up the instantial system clause by clause. (Matthiessen, 1995:27)

The interpretive and expansive function occurs because the writer selects as Theme a limited number of meanings available from those available in the field as a whole, and expands them into New. This choice of specific information realised as Theme grounds

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the text. Martin describes this, following Fries (1983), as the text's method of development

> pick[ing] on just a few [of all the experiential meanings available
> in a given field] and weav[ing] them through Theme time and
> again to ground the text – to give interlocutors something to hang
> onto, something to come back to – an orientation, a perspective, a
> point of view, a perch, a purchase. (1992a:181)

The different patterns of expansion in factual texts and persuasive texts are illustrated in Figure 5 and Figure 6

Figure 5 : Logogenetic expansion of a factual text

Theme interpersonal	Theme Topic	New Rheme

Xi'an Mining Institute

- one of the top ten
- degrees
- specialities & sections & courses & labs
- faculty
- library
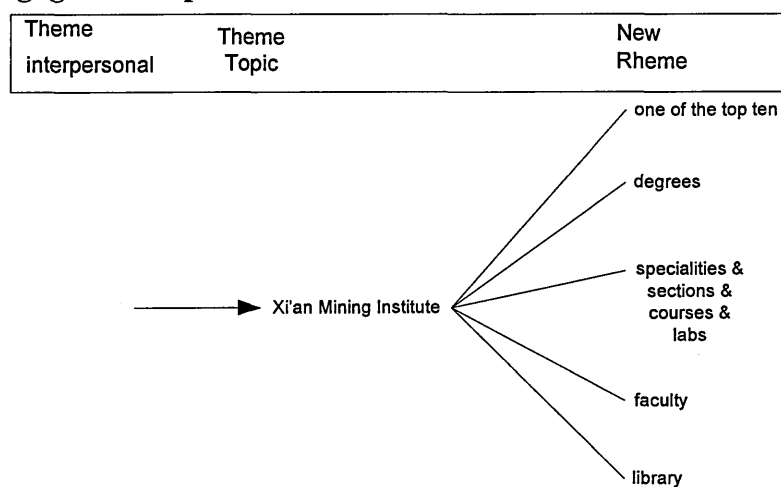
(Matthiessen 1995:44)

Figure 6: Logogenetic expansion of a persuasive text

Theme		New
interpersonal (topical)	ideational	Rheme

I don't think → endorsing Nuclear Freeze Initiative
- right step for CCC
- appropriate for CCC

[judgement]

→ we
- every popular issue ...
- those issues ... our core   [issues]
- matters of process such as ...
- precious limited resources
- stronger & more effective   [effectiveness]

→ open government campaign ... ———— our kinds of issues

→ I
- the initiative
- disarmament negotiations

[good causes]

I urge → you ———— against a CCC endorsement of the Nuclear Freeze Initiative   [the initiative]

(Matthiessen 1995:45)

The factual informative in Figure 5 is oriented to the ideational metafunction and is developed to construe ideational meanings within its field.   In this kind of text, the interpersonal meanings

> ...are drawn in to support the knowledge construction e.g. to 'partition' ideational meanings according to assessment of probability. (Matthiessen 1995:29)

Thus, interpersonal meaning is subsumed by the experiential meaning and not foregrounded. The ideational Theme "*Xi'an Mining Institution*" is expanded in the New

into an accumulation of meaning all funnelled through the ideational Theme. This pattern is confirmed by a further analysis of the same factual extract (see Matthiessen, 1995:48), which shows that the ideational Themes that logogenetically expand the field are nominal phrases and grammatical subjects and none of these are pronouns.

In contrast to the method of development of the factual text, in a persuasive text oriented to the interpersonal metafunction, in this case a persuasive letter, ideational meanings are built up in support of the interpersonal orientation, which is rhetorically shaped to appeal to the reader. Matthiessen argues that in persuasive texts:

> ...their coherence is likely to be interpersonal rather than ideational...If the text is successful, the primary logogenetic outcome will be some instantial interpersonal system where the listener's readiness to comply with the appeal has increased. (Matthiessen, 1995:29)

These texts are therefore organised around their interpersonal goal of persuasion. Figure 6 shows how, in the persuasive text, the ideational Themes are framed by the interpersonal Themes. Thus, all the information accumulating in the New is mediated from the point of view of the writer. The interpersonal projecting clauses as Theme, *I don't think* and *I urge,* plus the three pronouns *I you* and *we* indicate to the reader that the material in New has to be taken from the writer's angle. Therefore, the configuration of Themes enables the reader to

> ...construct an interpersonal 'multiplication' of the ideational system as part of his/her model of relationship between him/her and the writer. (Matthiessen, 1995:41)

The two types of constituents with Theme motivation most prominent in constructing this persuasive text are interpersonal projecting clause and pronouns in grammatical subject position (see Matthiessen, 1995:51). Of fifteen clauses, there are four interpersonal projecting clauses and nine pronouns as Topical Themes, and six of these are grammatical subjects. The implication from Matthiessen's discussion is that this interpersonal framing holds or is motivated over several clauses, even those which are not fronted by interpersonal Themes.

Another implication is that the use of personal pronouns as Topical Themes in persuasive texts has an interpersonal function. This is implied by Martin in a discussion of a persuasive text (1995a:245). He identifies pronouns that are grammatical subjects and, hence, Topical Themes, as supporting the interpersonal orientation of the texts' method of development. As these pronouns are understood to realise experiential information, and consequently, the field of a text or the topic of a text, this poses problems for analysis of persuasive texts.

Berry (1995) addresses this problem by arguing that Theme is the prioritisation of the speaker's meaning (1995:47), expressing the concerns of the speaker. She proposes that 'it is the cumulative force of the themes of a text that indicates these concerns' (1995:18). Therefore, according to Berry, consistent choice of either personal pronouns, or words that refer to the topic of a text, result in two different text types: interactional and informational texts, which she bases on Martin's (1986:39) interactional and informational text types. She argues that an interactional text-type prioritises 'interacting with the reader' while an informational text-type prioritises 'conveying information' and these meanings are realised through Theme. A Theme is interactional if it contains a word or phrase that refers to the writer or readers of the passage or to groups who include the reader or writer, whereas a Theme is informational if it includes a word that refers to an aspect of the topic of the discourse. This differentiation provides some way of recognising the interpersonal function of pronouns when they occur as Topical Themes.

Davies has a different conception of how choices of Topical Theme influence the development of a text. This conception offers a view of how writers realise stance, and provides a way of accounting for the interpersonal function of pronouns and names as clause Theme. Davies argues that the choice to refer to the writer or readers of the passage as Theme is an aspect of writer visibility. She argues that this is one choice in a continuum of choices open to the writer and these choices enable them to present a viewpoint.

...choice of theme, and consequent choice of discourse role, allows writers a wide range of options in presenting their viewpoint to readers, and that this set of options may be represented as a continuum of relative 'writer/writer viewpoint visibility' (Davies, 1988:175)

Therefore, she does not differentiate between two text-types, as Berry does, but views the choice of pronoun or names as Topical Theme as a cline of visibility available in all texts. She proposes that this choice is a resource for realising stance. Davies argues that there are two Subject roles at sentence and discourse level: discourse participant role and objectivised viewpoint (see Example 22)

Example 22 Subject roles at sentence and discourse level
(a) Discourse participant role
We still remain focused primarily on our main customers, (Sean.5/12.12.24.cl.12)

(b) Objectivised viewpoint
The necessity for change is driven by several factors: (Jonas.tma5a.cl.9)

In Example 22a, the Theme (underlined) is a Topical Theme and, as such, does not realise the interpersonal metafunction in Halliday's terms; yet semantically, this is expressing interpersonal information and making the writer's stance very visible. In the objectivised viewpoint, (see Example 22b), a stance is being taken, but in the form of a nominalisation of modality (underlined as Topical Theme). Therefore, the evaluation is hidden and this is an impersonal way of expressing opinion. The choice of the pronoun 'I' as Topical Theme is the most visible realisation of writer visibility, while objectivised viewpoint, realised as Topical Themes, is the least visible. As an impersonal stance is a register requirement in academic and administrative writing, Theme choice also helps to express stance and hence argumentation in an appropriate register.

The studies discussed in this section suggest that there may be several conceptions of 'method of development' of a text and different understandings of the part Theme choice plays in this. These studies give support to the claim that choice of Theme constructs different text types. They also indicate that analysis of Theme choice is a way of

identifying rhetorical choices made by writers. In this way, analysis of Theme may prove to be a method of analysing argumentation.

6.8 Theme and argumentation

Several studies show that specific deployments of Theme realise argumentation. The unit of analysis used by the researchers in these studies is different, as is the conception of Theme. While this makes comparison difficult, there do seem to be indications that textual, interpersonal and context frame or orienting Themes realise argumentation. Whittaker (1995) uses the orthographic sentence and a Hallidayan conception of Theme to analyse her corpus of academic research articles. She reports that paragraphs that she considered to construct argument, rather than exposition, used more textual Themes and marked circumstantial Themes. She found expository paragraphs to be characterised by unmarked Themes. She therefore hypothesises that density of textual Themes is an indicator of argumentation (1995:114). She also suggests that the low number of interpersonal Themes that characterised her data revealed the overall impersonal register associated with academic research articles. Only *10%* of Theme choices were interpersonal, and these tended to be projecting clauses that projected the author's or another authority's views of about a proposition. She found that argumentation was also constructed in ideational Themes by choice of lexis. Overall, she observed that in her academic research article corpus, argument is typically presented as fact, and not signalled by textual or interpersonal Themes.

Gosden, (1992) associates Theme choice with 'rhetorical multifunctionality' in scientific research articles. In his study, he used the orthographic sentence as his unit of analysis and a bipartite division of Theme into context frame and subject Theme and found the following deployment of context frames and grammatical Themes as sentence initial elements:

Table 6: Relative percentage of Grammatical Subjects and Context Frames in each RA section as Sentence Initial Element

Research article section	Grammatical subject	Context Frame	Non-GS/CF
Introduction	66.1%	32.9%	1.0%
Experimental	80.7%	19.2%	0.1%
Results	65.5%	33.8%	0.4%
Discussion	60.5%	39.0%	0.5%

He therefore associated 'rhetorical multifunctionality' (ibid:215) with the use of Context Frames (CF) and 'more matter of fact statements of reporting scientific procedure' (ibid:215) with choice of subject Themes. The implication is that in the Introductions and Discussion sections of their articles, writers use Theme to construct more than a factual account. Using a similar analysis, McKenna (1997:200) found that in Engineering reports, the writers use far fewer CFs (*18% of the clause complexes in his data*). He reports (ibid:208) that these Theme choices lead to a genre in which 'objective distance and author invisibility' is maintained. Forey (2002), using the clause complex (see Chapter 8.1) as the unit of analysis, found that extended Themes, which are grammatical subjects fronted by adjuncts and projecting clauses, accounted for *33%* of the clauses in her corpus. She reports that extended Themes inscribe writer viewpoint in the corpus. North (2003), again using the clause complex as analytic unit and utilising the notion of orienting Themes, found differences in the deployment of orienting Themes between students with an 'Arts' subject background and students with a 'science ' subject background in a History of Science course. Use of orienting Themes by Arts students was *70.93* per 100 T-units while 'science' students used *56* per 100 T-units. This led North to conclude that Arts students

> ...have a greater tendency to present knowledge as constructed...and discussion as a matter of interpretation rather than fact. (North, 2003:iii)

She also associated the use of orienting Themes with greater writer intervention in the text.

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Crompton (2002), using the orthographic sentence as the unit of analysis, found that interpersonal Themes and textual Themes were a feature of argumentative texts in a corpus of student writers

> Theme seems to be the natural locus for conjunctive adjuncts in
> argumentative texts: they are four times more likely to occur in
> Theme than in Rheme, across all the subcorpora. Theme seems to
> be the favoured locus for modal adjuncts in argumentative texts
> but not so pronouncedly as for conjunctive adjuncts. (2002:364)

This aligns with Francis's (Francis, 1990) finding that there were far more interpersonal Themes in her persuasive genre samples from newspapers' Letters and Editorials than in News reports.

Although these studies use different conceptions of Theme and different units of analysis, there seems to be a general agreement that greater deployment of interpersonal and textual Themes or greater use of orienting/contextual framework signal rhetorical activities associate with argumentation.

6.9 Conclusion

This chapter has argued that Theme is a local organiser of the message, that Theme is oriented towards the speaker's viewpoint and that Theme presents an angle on the message. It does this through contextualising and interpreting information as this moves through the clause, setting up interpersonal frameworks for information placed in New. Theme is first position in the clause in English but is not defined by this position. As the starting point of the message, Theme choice enables writers to shape their writing to achieve their rhetorical goals. Choice of Theme makes it possible for writers to realise stance, to realise interaction with the reader-in-the-text and to produce registers appropriate to their purpose. The basis of this claim is that Theme choice determines the method of development of the text. However, it was argued that different views of Theme influence different views of how the Themes of a text affect its method of development. A view of Theme in which the main participant in the transitivity, usually the grammatical subject, is an obligatory Theme and has a different

function from elements which occur before the main participant, leads to a more comprehensive understanding of the role of Theme in a text. With this view of Theme, the orienting or contextual functions of interpersonal and textual Themes can be analysed. Such analyses suggest that interpersonal and textual Themes play a part in constructing argumentation, and Subject Themes are also seen to construct different registers of argumentation.

Theme analysis would therefore seem to be a productive method of analysing argumentation in the corpus of the present study.

7 Design of the study

The object of study was the argumentation produced by students in two contexts. The discussion in Chapter 2 pointed to considerable debate surrounding argument and argumentation.   In that Chapter, competing and contrasting definitions and understandings of argumentation were considered. Most, but not all, of the approaches discussed in that Chapter propose a view of argumentation as being composed of two or more points of view representing different 'voices' in a dispute. This dialogic view underlies the New Dialectics (Walton, 1998) and Pragma Dialectics (Van Eemeren & Grootendorst, 1984) schools of argumentation studies, plus less formal views of argumentation (Scardamalia & Bereiter, 1994) and views of argument as discourse (Mercer, 2000; Wegerif, 1997). Several scholars referred to in Chapter 2 specifically extend this dialogic understanding of argumentation to written argumentation. Coirier (1999) and Scardamalia (1994) discuss written argumentation as a form of negotiation, in which the other point of view, the other voice, has to be presented in a single-authored text.

A distinction was made in Chapter 2 between notions of argumentation. These were views in which argument is analysed as idealised structures of formal identifiable moves (e.g. Johnson, 1996; Toulmin et al., 1979; Van Eemeren & Grootendorst, 1984; Walton, 1998) and argument as a discourse, with all that implies about the influence of context (Flower, 1995; Mercer, 2000; Wegerif, 1997). The point was made that conceptions of argumentation as an idealised structure lead to normative analyses, in which argument is judged from an ideal perspective. It was argued that these judgements often do not take into account the influence of ideological, interpersonal and contextual factors. Though Toulmin's very influential schema for argument brought to the fore the contingent nature of argument, in the Toulmin models, the influence of contingency on the argumentation is also somewhat idealised. Later scholars analyse the contingent nature of argumentation as socially generated forms of discourse and extend the notion of contingency to include a much more searching analysis of context. Mercer and Wegerif write of spoken argumentation as socially and culturally situated discourse. They

describe it as a form of rhetoric, generated by social and cultural aspects of the situation in which it occurs.

The view of argumentation as a socially situated discourse was further elaborated in Chapter 3, where research was discussed that presents argumentation as constructed by linguistic choices made by speakers and writers. These choices are the result of a complex set of contextual factors in which the context of situation shapes the argumentative discourse in subtle and diverse ways.

There are, thus, many conflicting perspectives on argumentation. For the purpose of the present study, I aim to investigate two contexts where argumentation is both expected and required to be produced. The purpose is to explore what actually occurs in contexts where argumentation is presumed to take place. Two very broad perspectives on argumentation are operationalised to do this. Argumentation is viewed as dialogic encounters between several points of view, in which speakers seek to establish a position, rather than idealised moves in an argument format. The dialogic perspective enables an assessment of the extent to which the argumentation in the student conferences and in the individually written assignments are dialogic engagements with multiple points of view. In addition, argumentation is conceived as a socially situated discourse which is shaped by sociocultural factors and which, following the discussion in 3.7, is also shaped by writers' construal of semantic relations. There is no other a priori attempt to predefine the argumentation found in the data. The argumentation is analysed using the linguistic notion of Theme.

The data was drawn from the students' on-line conferences, their responses to interviews and the tutors' and course guidance about writing. In the Introduction, I reviewed the educational and social context of the study in which the Open University Distance Business Management Diploma course was offered. I selected this course because of the pedagogic design for learning, which requires students to engage in argumentation in the on-line discussions and in their assignments.

In the design of the course, the learning sequence, plus the topics of the tasks, ensure a close connection between the discussion on-line and the writing of the assignments.

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The learning patterns devised by the course planners are organised so that students engage in a repeated sequence of learning. The sequence is typically as follows:

- Students individually work through the printed and audio-visual material together with voluntarily accessing on-going tutor-led conferences via the main tutor conference site;
- Students then participate in cluster group conferences;
- Students individually write assignments for assessment.

The students themselves in their interviews refer to this sequence as 'a TMA'. TMA, in fact, is the acronym for Tutor Marked Assignment, the name given by the Open University to assignments written by individual students and assessed by tutors. The cluster group conference part of this sequence lasts about six weeks. The design of the course means that the individually written assignments follow closely on the cluster-group discussions and there was a close similarity in the questions the students had to address in their computer-mediated conferences and the questions they had to address in their assignments (see Appendix 1). This conceptual and temporal link between the two activities gives more validity to comparisons between the argumentation. In addition, because the course is distance taught, much of the teaching is in the form of written comments on individual assignments, consequently, this teaching is permanent and available for analysis. A final reason for selecting this course is the permanency of the record of the students' communication in both media, a feature of the conference technology commented on in Chapter 4.4. This renders the interactions more easily available for detailed analysis.

There were two studies: a pilot study and a main study, both selecting participants from the Diploma in Management course. In both studies, Open University ethical protocols were followed and written agreement to take part in the study was elicited from each participant. All names of students and tutors have been changed together with any other information that may lead to identification, such as the names of the students' businesses.

7.1 Pilot Study

A pilot study was conducted to test the viability of the research design and the choice of analysis. Two methodologies were used: a Theme analysis of two different corpora and interviews with the participants. An adapted Hallidayan conception of Theme was used in the analysis, not the conception of Theme used in the main study. Hence, a bi-partite view of Theme was not employed. In this pilot study, though projecting clauses were considered as interpersonal Themes, in other ways, the conception of Theme applied adhered to the notion of Theme found in Halliday (1994). The data for the study was selected from the computer conferences of a small group of fifteen students who were taking the Diploma in Management course one year prior to that taken by participants in the main study. Their tutor was one of the tutors who took part in the main study, so there was some consistency in the forms of tutor mediation, and the course was the same.

The data comprised all the computer conference discussions from two cluster conferences over two on-line TMA sessions, plus the individual writing of two Q1 texts by each participant. A Q1 text is writing that is not conducted as a dialogue with others, but written off-line, individually, and then posted to the tutor conference. For both of the on-line TMA sessions, each student was first requested to post to the cluster group conference an individually written 500 word essay (Q1 text) to be read on-line by the cluster group and the tutor. The purpose of this writing was to describe the way in which the students' own business applied specific business concepts. The individual cluster groups then discussed a prescribed topic related to these Q1s. Two corpora were assembled, one comprising the on-line discussions and one composed of the Q1 texts. Significant differences on argumentation were found between the corpora. The computer-mediated discussions showed much greater use of multiple Themes than the Q1 data. In the computer discussion data, 65% of the total number of Themes were multiple themes. In the Q1 texts, 35% of themes were multiple Themes. This I considered had implications for the way claims were made, evidence evaluated and audiences persuaded. The results indicated that researching the students' choice of forms of language at clause complex level rather than investigating notional parts or moves in an argument structure did discriminate between individually written and

multiparty argumentation. Based on these results, I chose to use a Theme analysis in the main study and for reasons discussed in Chapter 6 and 8, adopted a bi-partite view of Theme.

The results of the interviews showed that the students had very different views about the usefulness of the on-line conferences. Some found them a very useful help when writing their assignments, whereas others did not consider they contributed to their assignments. Individual students also expressed some confusion about the purpose and structuring of their assignments. Wide variation occurred in the extent to which students participated in the conferences.

These responses in the pilot study to the interviews suggested widening the main study. Consequently, in the main study, I decided to examine the expectations for argumentation set out in the assignment marking guides provided for tutors, and do the same examination of guidance about writing argumentation offered to students. I also included in the analysis the guidance given by the tutors to their groups about writing assignments and the feedback tutors gave to individual students about expectations for argumentation. In addition, I added a further component to the study. The individual Theme choices of five students, who represented five attainment bands in the course, were examined in a special study, together with their interview responses and the feedback the tutors provided about their writing. In this way, I hoped not only to investigate the overall argumentation in each corpus, but also investigate individual students' argumentation and some of the influences on this argumentation, plus these students' attitudes to the argumentation requirements of the course.

7.2 The main study

7.2.1 The participants

Two tutor groups volunteered to take part in the study, and are referred to by the name of their tutor: Tutor group Bob and Tutor group Jan. Participation in the study was on

three levels: all the students who took part in the cluster group conferences, a sub-group of these who agreed to let me use their individual written assignments and a sub-group of these who agreed to be interviewed:

All cluster groups and all students: selected messages analysed

Twenty-one students' assignments: selection analysed

Twelve students interviewed

Five students: detailed
analysis of their writing.

The total number of students who sent messages to the cluster group sites was thirty-two, but numbers fluctuated by six as students joined and left the course. Twenty-one of these students agreed to let me use their assignments for analysis and twelve students agreed to be interviewed.

7.2.2 Data

The data was in the form of conference messages, individual written assignments, interview data, tutors' advice to individual students and course rubric about writing and participation in on-line conferences.

7.2.3 Conference messages

I decided that the cluster group conferences would provide the best source for my data because my observations, confirmed by interviews in the pilot study, showed that this was the conference site that all students used. This choice limited the scope of the study because these cluster group conferences were designed for independent discussion with very little mediation from the tutor and so a study of tutor mediation was not possible.

The TMA sessions available for data collection were as follows:

Table 7: TMA sessions

TMA sessions	Topic	Compulsory cluster group computer conference collaboration	Tutor marked assignment
TMA01	Performance measurement	Compulsory collaboration	yes
TMA02	Halifax case study	No compulsory collaboration	yes
TMA 03	Control measures	Compulsory collaboration	yes
TMA04	Gerst case study	No compulsory collaboration	yes
TMA 05	Change process	Compulsory collaboration	yes
TMA 06	Reflection on learning in the course.	No compulsory collaboration	yes

The selection of data was therefore taken from TMA sessions TMA01, TMA03, TMA05 because collaboration was compulsory and comprised all the cluster conference messages plus the tutor marked assignments.

Tutors tried to keep the allocation to cluster groups stable throughout the course but, because of a few students leaving or joining, the numbers fluctuated a little. In spite of this, all cluster groups had a core membership who communicated with each other throughout the course. Bob's tutor group was divided into three cluster groups. Jan's tutor group originally started the course with three but, due to student attrition, this was reduced to two after TMA01.

7.2.4 Collection and preparation of the CMD corpus

I was a non-participating observer of the on-going FirstClass conferences over the nine months that the conference was in operation and down loaded messages at intervals. These were stored as Word documents, one document for each cluster group. The metadata generated by the conference technology, such as message subject, sender date, cluster group, tutor, TMA session and so forth, was also copied. A typical message from a member of Jan's cluster group 1 to the group is shown below. This is how the message looks in the student conference site and this is how it was copied into a Word document before being prepared for a Microsoft Excel spreadsheet (identifying data has

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been obscured). In all the messages down loaded, none of the students' spelling or punctuation errors were corrected.

Example 23: A Discussion message in a Word document

0X June 200X 15:36:50

XXXX XX janXXX Clus1

From: Sean XXX

Subject: Re(3): TMA 5, Q1a

To: XXXXX XXX janXXX Clus1

Stan XXX writes:

>The second step of creating a guiting coalition, was done in a somewhat enforced way. Senior

>Managers were asked to 'commit like the pig not the chicken' which is an interesting analogy

>referring to a breakfast meal where the pig (bacon) commits, whereas the chicken (the

> producer of the egg) merely participates!

This seems to be a very 'revolutionary' type of change that was instigated quite rapidly?

>Senior Managers were asked by the group CEO to e-mail their immediate agreement to the

>overall stategy and if they didnt then '....I will assume you do not wish to be part of the senior

>management team....' (!)

Some what of a middle management dilemma (Binney and Williams 2003) applied to senior management where the change was imposed. Were the managers given time to implement, or even a choice as to how to implement i.e. Top-down or bottom-up?

Likewise the vision and strategy were set forth in very aggressive terms. So, certainly aspects of a directive stategy [sic] of enforcement of change here.

What was the general consensus as to the impostioin of change? Was there resistance to the change? Did the aggressive change strategist instil fear from threat?

Thurley and Wirdenious' 2003 factors yielded from a directive change strategy have featured very strongly here at XXX with, even only a midly directive attitude from senior and middle management.

That is

a) people feared the threat of change and therefore resisted - remember that some of the employees have been here 'forever', and resented the 'new bloods' coming in and taking over the place. At least, that's how they saw it.

b) Management have taken most of the burden of responsibility for the implementation of change and therefore unwittingly may have been too forceful in realising their ideals

c) The most important change introduced (important in terms of finances, job satisfaction, and performance) was the implementation of a performance appraisal process. This was implemented rather quickly, yet has proven very effective. Also, people (general staff) have realised that their contribution's are valued (and can see it monitarily, if necessary), so performance is up. In retrospect, it may have been more appropriate to involve the staff even more than was done, but we are able to recoup any informational loss through constant feedback.

Mmm, sorry, I went on a bit there.

Regards,
Sean

This method of downloading and storing the messages made it possible to keep the sequence in which the messages had occurred in the conference. It also made it possible to retain all the metadata that appeared in each email message.

Selected cluster conferences were then prepared for input into a Microsoft Excel spreadsheet. Preparation involved creating a separate Word document for each message and then removing all the metadata. After this preparation, the messages were then analysed into clause complexes, (see Chapter 8.1) and this document was copied into Microsoft Excel. Identifying details were then added, as shown in the extract below. The first column shows the student's name, the second identifies the message by date and time so that it can be retrieved from the Word document, the third column identifies the tutor group and the cluster group, the fourth identifies the clause is from a conference discussion, the fifth indicates that the student is quoting and replying directly to another message and the final column indicated the clause number.

Example 24: A message in Excel database

Sean	27Nov 14.47.54	Acl2	tma1	adisc	c/p	1	**Mel writes:** *In other words companies should stop navigating by financial measures. By taking fundamental improvements in their operations, the*

								financial numbers will take care of themselves, the argument goes_.
Sean	27Nov 14.47.54	Acl2	tma1	adisc	c/p		2	This is very much the case in my organisation.
Sean	27Nov 14.47.54	Acl2	tma1	adisc	c/p		3	At least, from my perspective.
Sean	27Nov 14.47.54	Acl2	tma1	adisc	c/p		4	We have about 5 years worth of projects in the pipeline.
Sean	27Nov 14.47.54	Acl2	tma1	adisc	c/p		5	And that is with everyone working pretty much at maximum capacity.
Sean	27Nov 14.47.54	Acl2	tma1	adisc	c/p		6	The projects, of course, are not fixed cost,
Sean	27Nov 14.47.54	Acl2	tma1	adisc	c/p		7	instead cost is assessed on required expertise for the job, and the duration of the task.

7.2.4.1 Copied messages

Example 24 shows how copied messages were treated. Copied messages are originally new messages sent to the conference and are analysed as such. This means that when students copy them, they should not be re-analysed. To avoid this, they are shown in italics or have a > symbol left-fronting the lines of print and are not analysed into clause complexes. They are given a clause number for practical reasons. In the example above, clause 1 has a computer generated **Mel writes.** This is categorised as **projX** in the analysis and removed from the study.

Another form of copying occurs when students copy and paste manually from another message in order to respond to a point. In this case, there is no computer generated

message (e.g. **Mel writes**) and so the copied message is italicised in the Excel database, categorized by **na** and excluded from the analysis.

7.2.4.2 Selecting the CMD corpus

A preliminary analysis of the CMD data in the Word documents revealed that the CMD communication contained three broadly different kinds of messages: purely social, with no reference to the task, transactional, and discussion. The first kind, a social message, was rare and confined to 'icebreaking' activities at the beginning of the first TMA (at the onset of the group discussion). These were removed from the corpus.

Example 25: A social message:

Hi John,

Hope you had/are having a good weekend. I can't quite believe its day 3 of the course and I'm in touch already...

Regards,

James

The second kind of message, transactional, was a response to the need to choose a partner for some of the activities and was concerned only with transacting these arrangements. These messages occurred towards the end of the TMA03 conference and were removed from the corpus.

Example 26: A transactional message

----

20 December 2002 14:14:46

From: Steve XXXX

Subject: Re(2): Urgent message.

To: Cluster group 2

Malcolm writes:

>I'll be around parts of this weekend and all day Monday, if you want to compare JE.

>Has anybody heard from Jack as he hasn't replied to a couple of emails I sent last weekend?

>Best regards and a Happy Christmas

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Malcolm,

Thanks very much. I'll revise my TMA and compare with JE instead. I will contact you over the weekend, if I need any more info. I'll post to here, if necessary

Thanks again,

Steve

A discussion type of message was any message concerned with the topic for discussion and is exemplified by Example 23.

Discussion type messages may be one of the following:

- an analysis of another student's business practices in which course theory is applied, as in the example above;

- a series of questions eliciting information about other students' businesses;

- propositions and counter-arguments associated with the discussion topic.

Discussion type messages form the vast majority of messages in the student cluster discussions. For example, in TMA01 session conference of Bob's cluster 2 group (see Table 8) there were a total of *54* messages, *5* of these were Q1 and removed from the corpus, *30* of the messages were considered to be discussion messages and retained in the corpus, and *19* were transactional messages and hence removed. This number of transactional messages was particularly high because the ensuing assignment asked students to compare their organisation with another student's, so there was a need for transactional messages.

7.2.4.3 Preparing the Assignment corpus

The assignments were sent to me after they had been assessed by the tutor. They were delivered electronically and prepared for analysis in a similar fashion to the conference data. Almost all the assignments and a few of the CMD messages contained diagrams and tables. Though all of these contributed to the argumentation, the Theme/Rheme analysis at clause complex level was not able to analyse the spatial aspects of the multimodal texts and therefore the diagrams and tables were removed from the corpus. All associated text which referenced the diagrams and tables was retained.

7.3 The selected corpora

The students' on-line messages, selected as specified above, were compiled into one corpus, the CMD corpus, which is 48,263 words long. The selected assignments were assembled into a different corpus, the Assignment corpus (Assig) and this is 68,185 words, making a total of 116,448 words. The potential size of each could be greater, as far more data was collected than could be analysed. The practical necessity of having a manageable size entailed making a selection from all the cluster conferences and assignments available. I decided that the criterion for selection would be to include as wide a range of individual student writing in both media as possible. The advantage of my data set was the number of 'different voices' found in the CMD discussions. Including as wide a selection as possible in the corpora would strengthen the claims made about the findings in the analysis. Based on this criterion, cluster group discussions from both Bob's and Jan's tutor groups were selected, as were conferences from the beginning, middle and end of the course. Table 8 shows this selection:

Table 8: Selection of cluster groups for the CMD corpus

Tutor	Cluster group	TMA01	TMA03	TMA05
Bob	1		x	x
	2	x		x
	3		x	
Jan	1	x		x
	2		x	x
	3	x	disbanded	disbanded

7.3.1 Selection of the assignments

The assignment selections were made following a similar principle: a range of students was selected, covering gender and ability and covering each of the three tutor sessions selected for the study. Twenty-one students volunteered to let me analyse their assignments. In total, 44 assignments were analysed and the distribution over the course was as follows:

Table 9: Selection of assignments

TMA1	TMA03	TMA05a	TMA05b
10 (each approx. 3000 words length)	7 (each approx. 3000 words length)	16 (each approx. 1500 words length	11 (each approx. 1500 words length)

The twelve students who agreed to be interviewed had at least two of their assignments analysed and those students who are the focus of a special study in Chapter 10 have at least three of their assignments analysed.

Theme analysis of both corpora

The Microsoft Excel spreadsheet is copied onto a compact disc for reference.

The next Chapter defines the configuration of Theme used in the analysis of the corpora.

8   Theme in the present study

In this chapter, I shall define the configurations of Theme used in the analysis. First, the linguistic structure on which the Theme/Rheme analysis is based, the clause complex, will be defined, then the categories of Theme analysed will be described. Following this, structures in the corpus that do not meet these criteria will be discussed and the approach to analysing these features will be outlined.

8.1   The conjoinable clause complex

Though all clauses that express transitivity have a thematic structure, Halliday observes that

> ...it is [the choice of clause Themes] which constitutes what has been called the 'method of development' of the text.   In this process, the main contribution comes from the Theme structure of the independent clauses. (1994:61)

He also observes that the pattern of Theme/Rheme message organisation also occurs in the clause complex (ibid:61) and many scholars have adopted the clause complex as their unit of analysis (e.g. Berry, 1995; Davies, 1997; Fries, 1995a; Fries & Francis, 1992; Thompson, 1996).   Fries recommends a unit of analysis he calls a conjoinable clause complex, which he defines as 'an independent clause together with all hypotactically related clauses which are dependent on it' (Fries, 1994:229). Paratactically related clauses are treated as separate T-units (Hunt, 1965).   The conjoinable clause complex will be the unit of analysis used in this study.

A conjoinable clause complex refers to an independent clause that may be followed or preceded by one or more dependent clauses.   Though both clauses have a thematic structure, as shown in Example 27, in the present study the approach taken ignores the Themes of hypotactically related beta clauses because, according to Fries and Francis:

The structure of beta clauses, including their thematic structure,
tends to be constrained by the alpha clauses (Fries & Francis,
1992:47)

In Example 27, the independent alpha clause (α) is preceded by the dependent beta (β)
clause, leading to the hypotactic relationship (β^α). In this case, the whole of the beta
clause is considered thematic.

Example 27: Conjoinable clause complex: dependent^independent

As I stated in 1.2.2 (Measurements of Performance)	economy is not monitored enough at the moment
β clause	α clause

(Jonas.tma1.cl.87)

In paratactically conjoined clauses, the clauses are analysed separately. The reason for
treating each clause separately is that, unlike in Example 27, the order of the clauses
cannot be changed. As Fries points out "one cannot say 'And Bill left, John came' "
(Fries, 1983:121).

8.2   The Context Frame and Topical Theme

It was argued in Chapter 6.6 that elements in a sentence occurring before the
grammatical subject (or before other participants in the semantic structure) and which
are not participants themselves, are thematic but optional, and function as a context
against which to interpret the grammatical subject and predicate. The main participant
in the clause, usually the grammatical subject, is an obligatory Theme in every clause.
Since, in some sentences, the main participant is not a grammatical subject, in this study
the obligatory Theme is called a Topical Theme. The optional, non-obligatory elements
are considered as Context Frames (CF). Table 10 shows the linguistic forms which
function in the CF and as Topical Themes.

Table 10: Linguistic forms in the CF and in Topical Theme

Context Frame			Topical Theme
textual Theme	interpersonal Theme	experiential Theme	
conjunctions	modal/comment adjuncts	complements	grammatical subject
conjunctive adjuncts	projecting clauses	wh-question words	imperative
continuatives	modal finites (interrogative)	circumstantial adjuncts	anticipatory 'it' clausal Theme
	vocatives	adverbial fronted dependent clauses	predicated Theme
		non-finite fronted dependent clauses	non-referential 'there'+process
			other

The Themes in the CF and the Topical Themes, as they occur in the study, are considered in the following sections.

8.3 Textual Themes

In Chapter 3.7, the role played by logical semantic relationships in constructing argumentation was discussed and, in that discussion, reference was made to Martin's understanding of Conjunction as a discourse system which realises logical meaning (Martin, 1992a:26). The resources of the textual metafunction, conjunctions and conjunctive adjuncts were identified as realising these relationships. These constituents can also be textual Themes when they are realised in this position and, in Chapter 6.8, several studies were cited that found textual Themes associated with argumentation. Therefore, Martin's (1992a) and Martin and Rose's (2003) framework of logical semantic relations is used in the present study to analyse the textual Themes in the corpus.

Logico-semantic relations are classified by Martin as: addition; comparison; time; consequence. Table 11 glosses the meaning of these functions.

Table 11: Conjunctive categories

Conjunction types	meaning	examples
addition	'adding together'	*and*
comparison	'comparing'	*like*
time	'sequencing in time'	*then, finally*
consequence	'explaining causes'	*all because*

Adapted from Martin and Rose (2003)

One of the reasons for using this taxonomy as a way of analysing the use of textual Themes in the study is that it offers a possibility of examining interactive negotiations between reader and writer through the use of conjunction. Thus, expectancy relations

raise the reader expectation of what is to follow, exemplified by *and*. On the other hand, concessive relations, exemplified by *but*, confound this relation. Winter, cited in Thompson and Zhou (2000:132) suggests that *but* is not to signal contrast but more specifically to signal that "the juxtaposition [of two clauses] conflicts with what is expected' while *and* essentially signals that 'the expectation is fulfilled'" (in Huddleston et al., 1968:570). Martin and Rose (2003:52) develop this notion and argue that, in the process of managing expectancy and concessive relations, the writer is acknowledging voices other than her own. This view of expectancy and concessive relations is reflected in their framework of conjunctive relations used in this study.

In this framework, other semantic relations that are wrought by conjunction are found in binary contrast. They are: similarity and difference; addition and alternate. Table 12 shows the full framework and all the binary semantic categories. In Additive relations, writers conjoin parts of text by making additions to their propositions or by making alternatives. When construing Comparative relations, the binary semantic categories that writers use rhetorically are similarity and difference. Time is organised into successive happenings or simultaneous happenings. It is in the semantic relationship of Consequence, organised into cause, means, purpose and condition, that expectancy and concessive relations are realised.

Table 12: External conjunctive relations

		Typical realisation
Addition	additive	*and, besides, neither, nor*
	alternative	*or, either, if not..then*
Comparison	similar	*like, as if*
	different	*whereas, rather than, apart from*
Time	successive	*as soon as, since, after, then, when*
	simultaneous	*as, while*
Cause	expectant	*all because, so, therefore, thus*
	concessive	*although, even though, but, however*
Means	expectant	*by, thus*
	concessive	*even by, but*
Condition	expectant	*if, then, provided that, so long as*
	concessive	*even if, even then, unless*
Purpose	expectant	*so that, in order to*
	concessive	*even so, without, lest, for fear of*

(Adapted from Martin (1992a:179); Martin and Rose (2003:133)

Because of the size of the corpus in the present study and the delicacy of the difference between the semantic relations Means and Cause, Means is subsumed into Cause. Time is not analysed for successive and simultaneous relations because I do not consider this information to be central to investigating the argumentation in the data.

In the present study, where the conjunction or conjunctive adjunct occurs in Theme position, the Theme will be analysed as in Table 13. The examples are from the data in the study and have been analysed to show Theme and Rheme. The convention for identifying textual, interpersonal, experiential and Topical Themes and Rheme is explained in Appendix 2 and will be followed throughout the study. As Appendix 2 explains, textual Themes are signalled by the use of upper case letters.

Table 13: Textual Themes in the study

Categories			Themes
Addition	additive	i	<u>AND ALSO</u> **audits on the cleanliness** \are made public. (Martin.6/11.15.28.cl.11)
	alternative	ii	<u>OR *does* it</u> \ just get lost in a black hole somewhere? (HeathW.13/3.22.58.cl.9)
Comparison	similar	iii	<u>LIKE ALL CHANGES</u> **it's the fear of the unknown** \that causes contempt. (PaulJ.28/5.08.56.cl.10)
	different	iv	<u>WHEREAS</u> **the medical staff** \ will probably have the ethical point as their most important one (TherD.6/11.18.26.cl.8)
Time		v	<u>SUBSEQUENTLY</u> **there have been** \ other products added to the system. (Sean.5/12.12.24.cl.7)
Cause	expectancy	vi	<u>THEREFORE</u> **my Key Questions in looking at Performance issues** \start with the organisation. (Alex.3/12.08.00.cl.6)
	concession	vii	<u>HOWEVER</u> **they** \ may be using technology to help them. (Martin.26/11.15.51.cl.16)
Condition	expectancy	viii	No textual Themes in the corpora
	concession	ix	<u>EVEN AT THIS STAGE,</u> **no mention** \ was made of any limiting factor that would affect the throughput of the furnace. (Elenna.tma5b.cl.15)
Purpose	expectancy	xi	No textual Themes in the corpora
	concession	xii	No textual Themes in the corpora

(Adapted from Martin (1992a:179) and Martin and Rose (2003:133).)

In examples iii) Comparison: similar; ix) Condition: concessive, there is indeterminacy in the analysis because the figures contain some experiential information. They could be analysed as realising semantic relations in the experiential metafunction and therefore coded as circumstance Themes. In cases like these, I base the decision on which meaning is the most salient depending on the amount of experiential information the Theme is conveying.

Another area of indeterminacy is the use of *but*. Though Halliday and Hasan (1976) define the conjunctive function of *but* as expressing adversative relationships and as a way of introducing new information into the clause, they claim that it does not always clearly express concessive meaning. It has already been shown that Martin sees a concessive role for *but*. In their framework, Martin and Rose (2003) suggest that *but* can encode both contrasting and concessive relationships. The concessive meaning is glossed as *however* or *in spite of* and the contrastive relationship can be probed by substituting *instead* or *rather* or *except*. I found that distinguishing these two relationships in the study was problematic, as Example 28 indicates:

Example 28: *but* as cause: concessive and as comparison: different

cl.4 <u>**The fact that Mel has the overseeing role within her organisation**</u>

\ [means that] the greatest measure with which she is judged is the profitability of the business which is how the business is judged

cl.5 <u>WHEREAS **Sean**</u> \ has a technical role dealing with customers etc

cl.6 <u>BUT [ ]</u> \ is not responsible for income generation directly

cl.7 <u>BUT [ ]</u> \ more involved with software dependability

cl.8 AND HENCE [ ] \ gives finance less importance (Martin.26/11.15.51)

Arguments can be made for both contrastive and concessive functions for *but* in clause 6. I decided that its major function is to encode a concessive relationship as Theme whereas *but* in clause 7 realises a contrastive relationship and hence is analysed as comparison: difference.

Whittaker (1995) includes in her analysis of textual Themes a notion of textual metaphor such as *this means* as a way of expressing *therefore*. I decided against this in the belief that using conjunctive adjuncts such as *therefore* instead of nominals such as *this* (in the example given) may represent a choice based on register and genre.

8.3.1 External and Internal Conjunction

A further dimension of Conjunction realised as Theme is the differentiation between External and Internal conjunction (Halliday & Hasan, 1976; Martin, 1992a). These scholars understand Internal conjunction to make a logical relation between parts of a

text. Martin (1992a:180) sees external relations as being oriented to field whereas internal relations are wrought between parts of the discourse itself. According to Martin, internal conjunctive relations are subject to genre and mode and are a feature of written text. In his view, external conjunction makes reference to the participants, organises external experience and makes logical links between that experience. The distinction between internal and external conjunctive relations is based on a decision whether the ordering is internal to the discourse or external to the experience and can lead to different decisions between scholars. For instance, although Whittaker (1995:113) analyses *but* as an internal organiser, I follow Martin's taxonomy where it is considered to realise external relations. Francis (1990:62) analyses *therefore* as internal conjunction whereas I analyse *therefore* as denoting external experiential relations of cause in most cases. Some of the delicacy in Martin's and Rose's system has not been used in my analysis because of the size of the corpus and also because the pilot study suggested that such delicate analysis did not add to an understanding of the data. The category of internal Additive relations, therefore, is not sub-divided into 'developing' and 'staging', the category of internal Consequential relations is not divided into 'concluding' and 'countering' and internal Time relations is not sub-divided into successive and simultaneous relations.

Table 14: Internal conjunctive relations

		Typical realisation
addition		*furthermore, in addition, as well as,*
comparison	Similar	*similarly, again, for example, e.g., in fact*
	Different	*rather, conversely, on the other hand*
time		*firstly, secondly*
consequence		*thus, hence, in conclusion, nevertheless*

(Adapted from Martin and Rose (2003:134)

8.3.2 Continuatives as textual Themes

These are discourse signallers which indicate that a new move in a dialogue is beginning or that 'a move to the next point if the same speaker is continuing' (Halliday, 1994:53). They are typically realised as *yes, no, well, oh, now*, as in the following example:

Example 29: Continuative as textual Theme
<u>WELL AT LEAST **you**</u> \ can feel as though your time is not wasted! :-) (Martin.2/12.17.46.cl.2)

Martin (1992a:218/9) classifies such continuatives as *anyway, well, OK* as part of the internal Additive conjunctive system. This is how they will be analysed in the present study.

8.4 Analysis of Interpersonal Themes in the CMD and Assignments

The discussion of interpersonal management in Chapter 3.5 reviewed studies of modality and evaluation that indicate how these functions of language are used in argumentation and in Chapter 6.7 it was shown that interpersonal Themes can realise the interpersonal metafunction. It was also shown that interpersonal Themes are an important resource for expressing writers' attitude and epistemic judgement. Use of interpersonal Themes signals commitment to a proposition and they are also a resource for realising interpersonal positioning and participant relations.

Interpersonal Themes in this study are modal and comment adjuncts, projecting clauses, finite interrogatives and vocatives. Comment adjuncts will be considered as a sub-set of modal adjuncts and both are referred to as modal adjuncts.

8.4.1 Modal adjuncts as interpersonal Themes in the CF

These are realised by adverbs and prepositional phrases, and polarity expressions *yes* and *no*. Modal adjuncts as Theme are both simple adverbs (Example 30) and 'internally complex' expressions (Perkins, 1983:100), as in Example 31.

Example 30: Modal adjunct: adverb as interpersonal Theme
Perhaps **this** \ is implicit   (Rich.tma1.cl.72)

Example 31: Prepositional phrase as interpersonal Theme
In the normal course of events, **they** \ had frequent team meetings   (Tricia.10/3.01.04.cl.25)

Example 31 may be interpreted as a circumstance of time but, glossed as *normally*, it comments on the possibility of the claim about team meetings being true and the co-text implied the latter interpretation.

In the CMD, there are expressions of modality which are not deontic, but where the modality does not seem to refer to the epistemic value of the proposition either (Example 32). Here, there is a distinct concessive aspect to Neil's comment, in which he is stating that, despite what others may think, his proposition is true. The use of this type of interpersonal Theme therefore constructs interactivity. The co-text suggests that he is attesting to the unlikelihood of this being so, and therefore could have used the comment adjunct *surprisingly*.

Example 32: interpersonal Theme
BUT *funnily enough* **it** \ doesn't yet   (NeilV.6/3.18.37.cl.16)

The modal adjunct of entreaty, *please* (Halliday, 1994:49) is considered as modulation and hence as an interpersonal Theme. In the example, *please* is analysed as interpersonal adjunct of entreaty with an imperative predicate as Topical Theme:

Example 33: Interpersonal Theme
Please **feel** \free to amend it in any way you wish   (Mel.5/12.21.20.cl.3)

Finally, in the CMD corpus, expressions that attest to the possibility of other people's propositions being true, rather than the proposition in the clause itself, are also considered interpersonal Themes. In Example 34, *yes* signals agreement with a previous proposition and *no* signals disagreement with a previous proposition. Both interpersonal Themes construe interactional texts.

Example 34: Interpersonal Theme

Yes you \ have made some good points, (Mike.2/12.18.44.cl.2)

no, in my opinion it \ doesn't (Heath.6/3.12.27.cl.9)

Example 34 raises another issue in the analysis. In this clause, there are two expression of interpersonal meaning *no, in my opinion*. Both are considered to be interpersonal Themes because both are considered to be rhetorically motivated. In this particular clause, *in my opinion* is considered to be an interpersonal metaphor expressing epistemic modality. Halliday's (1994:355) examples of interpersonal metaphor give support to this point. Hence, in this clause, the two interpersonal Themes have different functions and this is coded in the analysis of the corpus.

8.4.2 Projecting clauses as interpersonal Themes in the CF

Projecting clauses are considered to realise interpersonal meaning by many scholars (e.g. Cloran, 1995; Hunston, 1993b; Martin, 1995a; Whittaker, 1995). Projection represents a specific form of relationships between clauses. Typically, clauses are seen to realise non-linguistic experience whereas, in contrast, projected clauses are considered to be representations of linguistic experience, usually reporting what someone says or thinks (Halliday, 1994:250). Hence, in Example 35, the projected clause (italicised) represents what Steve, the writer, claims Piore and Sabel and Harvey suggest:

Example 35: Projecting clause and projected clause
Piore and Sabel (1984) and Harvey (1989) suggest **the differences in organisational control** \ are also influenced by the nature of the market conditions...(Steve.tma3.cl.22)

The projecting clause presents Steve's stance on Piore and Sabel and Harvey encoded in the projecting verb. That reporting verbs realise modality, and that choice of reporting verb is associated with the writer's own epistemic stance, is suggested by Thompson and Thetela (1995) and Thetela (1997a).

Example 35 also demonstrates another salient point about the notion of projecting clauses. In this study, subjective and objective modal metaphors are considered a form of projection. Implicit in the discussion above is an understanding of projection as a

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lexico-grammatical unit construing one single message (Cloran, 1995:362). Using this notion, Cloran regards the projecting clause as a preface to the central entity found in the projected clause. She considers these prefaces as 'criterial to the recognition of the rhetorical activity type constituted by the message' (Cloran, 1995:381) and that 'the prefaced part of the message is a particular point of view' (ibid 1995:385). Therefore, the notions of rhetorically motivated preface clauses and central entities will be used to argue that all the clause complexes below have a similar structure of a preface clause, which has a modality function, and a projected clause, which contains a proposition. The preface or projecting clause is regarded as an interpersonal element and the subject of the projected clause is the Topical Theme. The categories of projecting clauses considered as thematic are exemplified below.

Example 36: Projecting clauses - subjective interpersonal metaphor
I think [that] **this** \ was done too much in isolation. (Neil.tma5a.cl.12)

Example 37: Projecting clause - objective interpersonal metaphor
It is possible that **her approach** \ would have been different had she had more knowledge of the industry. (Elenna.tma5a.cl.54)

Example 38: Projecting clause - objective orientation
There is a strong belief that **the organisation** \ produces outcomes for children
(Tart.tma1.cl.109)

Example 39: Externally attributed orientation
Traecy and Wiersema state that **the value propositions** \ are not mutually exclusive.
(Martin.tma1.cl.168)

It is argued that these clauses enable writers to encode interactivity and the foregrounding of writer visibility, and this is one of the ways in which writers in the present study realise argumentation.

Although all projecting clauses are considered interpersonal elements in the CF, the examples make distinctions based on their different functions. In the discussion of the results of the study, I suggest further categorisation based on the kinds of interaction and authorial positioning which they construe.

8.4.2.1 Projecting clause - interpersonal subjective metaphor

The rationale for analysing clauses such as Example 36 (reproduced below) as one clause complex with an interpersonal CF Theme in the α clause *'I think that'* followed by a Topical Theme *'this'* in the β clause *'this was done too much in isolation'* is based on notions of metaphoric realisations of interpersonal meaning and stance.

(Example 36 reproduced)

I think [that] **this** \ was done too much in isolation.   (Neil.tma5a.cl.12)

Martin proposes that to analyse the Theme/Rheme organisation in such a clause complex, the interpersonal meaning of the α clauses has to be addressed and that this meaning is metaphorically or symbolically related to modality (Martin, 1995a:248). He argues that the alpha clause is a metaphor for the modality which hedges the categorical claim.   Hence the writer, Neil, here means 'possibly' or 'probably.'   Therefore, the proposition which is at stake is in the dependent beta clause.   Martin bases his reading of these clauses on Halliday's (1994:354) theory of explicit subjective and objective interpersonal metaphors of modality in which the writer selects an orientation towards the epistemic (probability) or deontic (obligation) modality of his proposition.   This is either proposed subjectively, foregrounding the position taken by the writer or objectively, asserting the modality without reference to source.   Therefore, clause a) in Martin's example reproduced below is a metaphoric realisation of the high valued modalisation 'Surely his death should have...'

a) I cannot believe

b) that his death and the death of so many others in the last terrible weeks has not prompted an immediate response from the government!

(Martin, 1995a:250)

Similarly, Martin considers the example below to be a metaphoric realisation of 'Obviously criminals cannot....'

a) I know

b) that criminals cannot be stopped.

(ibid:250)

These interpersonal metaphors are therefore realising epistemic modality.

In this study, then, clauses which express subjective modality using a projecting clause will be analysed as in Example 36 reproduced below.

Context Frame Theme	Topical Theme	Rheme
I think [that]	this	was done too much in isolation
interpersonal Theme:	grammatical subject	
subjective modal metaphor		

8.4.2.2 Projecting clause - objective orientation

Here the projecting clause realises explicit objective modal metaphor (Halliday, 1994:355). (Example 37 reproduced below)

It is possible that **her approach** \ would have been different had she had more knowledge of the industry. (Elenna.tma5a.cl.54)

These structures have an extraposed (or postposed) subject that is referred to cataphorically by the empty subject *it*. Halliday does not see this projecting structure as a thematic device, but regards *it* as a Topical Theme in examples such as the one above (Halliday, 1994:129). Several scholars support this view because they regard extraposition as a text organising strategy to enable the placement of long complicated clauses at the end of sentences (Bloor & Bloor, 1995:167) or to place New material at the end of the sentence (Martin, 1993). Many other scholars take a different view. Hewings and Hewings (2002) advocate a rhetorical motivation for certain forms of extraposition. Several scholars propose that the *it* clause provides a comment on the main proposition (e.g. Cloran, 1995; Thompson, 1996). Further, some scholars see these structures as thematic. Cloran (1995:380) regards them as an evaluative segment and thematic; Thompson (1996) argues that they are a device to allow speakers to 'thematise their own comments' (Thompson, 1996:129); and Hunston (1993b), Whittaker (1995) and Davies (1997) specifically identify the structure as denoting an objective modal orientation or 'objective voice'. In addition, Thompson (1996), Whittaker (1995) and Hewings (1999) consider these preface structures to be interpersonal Themes, Mauranen (1993) considers them to be an element in an orienting

Theme and Davies considers them to be part of a context framework. Therefore, in the present study, extraposed clauses such as the one in Example 37 will be analysed as an interpersonal element in the CF Theme.

Example 37 reproduced

Context Frame Theme	Topical Theme	Rheme
It is possible that	her approach	would have been different had she had more knowledge of the industry
interpersonal Theme: objective modal metaphor	grammatical subject	

Because of the size of the corpus, delicate analysis of each rhetorical purpose of *it* projection was not able to be considered. For instance, Hewings and Hewings (2001:201) do not include *It was shown that* as presenting propositional material, but see its role as a text organising structure. In the present study, the impersonal objective nature of the choice leads me to analyse it as an objective form of modality and hence an interpersonal Theme.

Whittaker (1995) and Davies (1997) extend the concept of objective voice to include structures such as in Example 38, in which an existential *there* allows Tart, the writer, to evade the responsibility of naming the source of *a strong belief*:

Example 38 reproduced

There is a strong belief that **the organisation** \ produces outcomes for children
(Tart.tma1.cl.109)

This analysis will be adopted in the present study and the clause complex will be analysed as in the example.

The final category of projecting clause has already been referred to in the introductory discussion of projection. Hunston, (1993), basing her argument on Thompson and Ye (1991), suggests that projections that report other's propositions also encode attitude or stance realised in the reporting verb. Davies (1997) and Mauranen (1993) consider

these projections as elements in context frames and orienting Themes. Therefore, I analyse examples, such as that in Example 39 (reproduced below), as an interpersonal element in the CF Theme.

Traecy and Wiersema state that **the value propositions** \ are not mutually exclusive. (Martin.tma1.cl.168)

In this clause complex, the writer, Martin, chooses to use *state*, a factive reporting verb, and hence is claiming that there is very little ambiguity in the proposition in the clause

8.4.3 Finites as interpersonal Themes in the CF

The function of finite interrogatives in Theme is identified by Cloran, who observed

...polarity is thematised where what is sought is confirmation

(realised by polar interrogatives). (Cloran 1995:383).

Thompson and Thetela (1995:105) argue that one of the functions of questions is in inscribing interactivity into text by creating a role for reader and writer. Finite interrogatives are considered to be interpersonal Themes because the finite operator has first position (Halliday, 1994:45). They realise the exchange functions of demanding information and demanding goods and services. Example 40 shows the goods and services speech function. In the first example, the student is asking for an exchange of a service, not information. The goods and services exchange is more obvious in example b.

Example 40: Finite interrogative as Theme: exchange of goods and services
a **You** \ mentioned changes in figures to make things seem better to senior management,

could **you** \ offer an example of this? (Rob.1/3.10.32.cl.10)

b *Would* **anyone else** \ like to add anything to it? (Paula.7/3.10.45.cl.3)

Finite as an exchange of information is exemplified in the example below.

Example 41: Finite interrogative as Theme: exchange of information
Did **the company** \ set out to have such a narrow focus? (Mel.29/11.21.13.cl.3)

8.4.4 Vocatives as interpersonal Themes in the CF.

Eggins and Slade (1997) and Thompson and Thetela (1995) include vocatives in the semantics of involvement. Vocatives signal who is focusing on whom in an interaction and they are a resource for constructing an interactional text. They are normally in first position when carrying out this function and, according to Halliday (1994:54), vocatives have Theme potential when preceding the Topical Theme. All vocatives are outside the propositional content of the clause (Thompson & Thetela, 1995), and outside the mood block (Butt et al., 1994). Therefore, all of them have a signalling rather than a propositional function, as in Example 42:

Example 42: vocative as interpersonal element in the CF

Melanie you say **financial measures** \ are more important to you in your measuring

of performance.   (John.2/12.19.54.cl.21)

8.5 Experiential Themes in the CF.

As Table 10 shows, there is thematised experiential information in the CF which does not function as the grammatical subject or as a main participant in the process. This experiential information is considered to contextualise or orient the information in the Rheme, hence its function as a CF Theme.

It was argued in Chapter 6.5 that fronted adjuncts, such as circumstantial phrases in a clause, as in Example 43, do not represent participant roles in the semantic structure, but provide spatial, temporal or other circumstantial information. Therefore, they are considered to have Theme potential and realise experiential information in the CF.

Example 43:circumstantial adjunct as Theme.

At IM there \ is no formal performance measurement system in place.   (Jonas.tma1cl.40)

In a clause complex, there is general agreement amongst scholars (e.g. Halliday 1994:232; Eggins 1994; Thompson 1996; Bloor 1995) that hypotactic dependent clauses (Example 44) provide experiential information and are also considered circumstantial Themes. These clauses are therefore an element in the CF.

Example 44: Hypotactic clause as experiential Theme.
<u>Although I have interpreted IM's focus as customer intimacy it</u> \ is by no means beyond question (Martin.tma1.cl.157)

Likewise, non-finite dependent clauses, as in Example 45 are considered by Bloor (1995:185) to expand on the proposition in the dominant clause and hence contribute experiential information, again without providing a participant in the transitivity.

Example 45: Non-finite dependent clause as experiential Theme.
<u>Taking a pragmatic approach I</u> \ will firstly tackle each type of measurement individually, then as a whole. (Seantma1cl.9)

Therefore, clauses such as these are also considered as part of the CF and, where possible, a circumstantial function is ascribed to them.

Three other structures are found in the data in pre-subject position and considered to provide experiential information: complement; attributive complement and preposed attribute. Neither complements (Example 46) nor attributive complements (Example 47) were a commonly used structure in the data, (though attributive complements were more common than complements), so I have not distinguished between them in the analysis. Both are identified as experiential elements in the CF

Example 46: complement as experiential Theme.
<u>this Sally</u> \ did effectively, despite being new to the company and had no background of the politics involved. (Martin.tma5a.cl.28)

Example 47: Attributive complement as experiential Theme
<u>Coupled with this</u> is <u>**a bi-annual 'bonus' payment**</u> (Sean.6/3.22.41.cl.3)

Preposed attribute was another structure that the students used to include ideational experience before the subject in the clause.

Example 48: Preposed attribute
<u>Working for the organisation *was* she</u> \ an internal Change Agent . (Alex.tma5.cl.29)

This 'clearly has thematic prominence and experiential content, and could therefore be taken as Theme' (Thompson, 1996:141). He adds that this structure does not exhaust the thematic potential of the clause, but adds an initial piece of information before the

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'real starting point of the clause' (ibid:141). This 'extra piece of information' is an attribute of the subject, therefore adding contextual information and, in examples such as Example 48 is analysed as a circumstance. My example is complicated because the writer has used an interrogative. In Example 48 the preposed attribute could be glossed as meaning 'Because she was working for the organisation, she was an internal change agent.' This interpretation is likely from the co-text.

It was suggested in the discussion in Chapter 6.6 that an important function for these experiential elements in the CF is to set up semantic frameworks based on primary semantic notions. Following this, the circumstantial elements in the CF are categorised as shown:

Table 15: Types of circumstance Themes in the CF

Type	Sub-categories	Example	Probe
time		As the implementation (of the plans) is going on, it \ uses a combination of observation of the output (Sean.tma3.cl.25)	When? For how long?
place		At IM there is \ no formal measurement system in place. (Martin.tma1.cl.45)	Where? At what place?
manner		By using this method, a comparison \ can be made without too much generalised information being present. (Elenna.tma1.cl.32)	By what means; with what; how
cause			Why
	reason	Because of this level playing field, information \ is shared more frequently and more openly. (Sean.tma1.cl.83)	As a result of what? Why?
	purpose	In order to establish a sense of urgency we \ focused on highlighting the benefits that the change would bring (Paula.tma5b.cl.42)	What for?

Type	Sub-categories	Example	Probe
	behalf	For a small company like ours, **this** \ may be a valid point of view, (Tricia.tma1.cl.71)	Who for? On whose behalf?
contingency			In what circumstances?
	condition	In our bid for expansion **we** \ have become a transaction based organization (John.tma1.cl.47)	Under what conditions?
	concession	Although, balanced, **the scorecard** \ is used to determine company goals and employee targets (NeilG.tma1.cl.105)	Despite what? Although what?
accompaniment		With this kind of work **you** \ do not always know exactly where you are going (Tricia.24/3.22.21.cl.25)	Who/ what with?
role		As a sole provider of some services, **CL** \ is able to negotiate price from a strong standpoint (Tart.tma1.cl.31)	What as?
matter		Looking at information about their organization, **JJ** \ use all performance indicators (John.tma1.cl.69)	What about?
angle		As Martin pointed out in his TMA, **these** \ change (Mel.25/11.20.59.cl.20)	From what point of view?

(Adapted from Martin, Painter and Matthiessen 1994:104 and Halliday (1994:151)

8.5.1 WH-questions

In a mood analysis of the clause, the wh-elements conflate with different constituents: subject, complement or adjunct and all these constituents play a part in the transitivity role of the clause (Eggins, 1994:286). The examples show wh-elements as a complement and as an adjunct:

Example 49: WH element as an experiential Theme: complement
What does **management control** \ have to do with learning anyway? (Tricia.10/3.01.44.cl.7)

Example 50: WH element as an experiential Theme: circumstance
How many management layers does **your organisation** \ have? (ChrisG.3/3.12.30.cl.25)

However, where the WH element takes the subject slot, it is considered a Topical Theme, as in the following example.

Example 51: WH element as topical Theme
What \ causes the difference? (Paula.7/3.19.54.cl.1)

8.6 Multiple CF Themes before the Topical Theme

A feature of both corpora was multiple elements in the CF before the Topical Theme. Matthiessen refers to the 'piling-up' of adjuncts before the Topical Theme as a feature of the diminuendo effect in which Theme is motivated through a clause (Matthiessen, 1992:50). In the present study, these adjuncts are considered to be optional and the subject (which in a projecting clause is in the projected structure) is obligatory. This view of Theme lends support to the analyses of three different kinds of multiple Themes shown in the examples below. In Example 52, the Topical Theme is preceded by several adjuncts which, I believe, is for rhetorical effect:

Example 52: Multiple adjuncts in the CF
SO, 7K later and an employment policy which includes a probation period **I** \ looked at what could be done to improve matters. (John.2/12.19.54.cl.47)

Perhaps more problematic are messages found in the CMD corpus that incorporate two projecting clauses, as in the following example (Example 53). Though an argument can be made for considering the second projecting clause as a clausal Topical Theme, in

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order to support consistency in the analysis, I have analysed it as another interpersonal Theme.

Example 53: Projecting clause complex
I think that it is obvious that **an organization** \ bases its performance judging towards what it does (Alex.5/12.11.16.cl.16)

Following Gomez-Gonzalez (1997:136), any element before the subject in a projected clause is considered as part of the contextual framing of the main proposition and hence is included in the CF. In the discussion of the results, I suggest that the multiple elements in the CF may be a response to a specific context and rhetorically motivated.

8.7 Topical Theme

The discussion in Chapter 6.5 argued for a view of Topical Theme as obligatory and reported that there were differences amongst scholars about which grammatical structures fulfil this role. There is general agreement that Topical Theme has a syntactic relationship with the mood block as the subject of the predication and as a participant in the process. Downing (1991) extends the notion of participant in the mood block to include the object. Hence, when the object is fronted as object complement, she identifies this as Topical Theme. Mauranen (1993) does not consider this object complement as Topical Theme, but regards it as an orienting structure. I have considered all complements as part of the CF. Other structures considered Topical Theme, shown earlier in Table 10 are: grammatical subject (henceforth referred to as subject), imperative, anticipatory 'it' clausal Theme, predicated Theme, non-referential 'there' + process, other.

8.7.1 Subject as Topical Theme

Subject Theme is the conflation of the Topical Theme with the grammatical subject and is analysed in the present study as subject Theme.
According to Halliday (1994), subject is seen as a fusion of three different functional roles:

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- that which is the concern of the message. This is sometimes referred to as psychological subject, the function of which is Theme;

- that of which something is being predicated. This is the grammatical subject and, as part of the mood block, together with the verb, is central to argument;

- the doer of the action. This is the logical subject and is the constituent which carries out the action.

Where psychological subject and grammatical subject conflate, this structure is referred to as subject Theme. A variety of nouns and nominal phrases, plus pronouns, are found in subject Theme position.

8.7.2 Imperative as Topical Theme

In imperative structures, it is the predicator verb that is Theme (Halliday 1994:47). This follows an understanding of imperative structures as having an unexpressed *you* implicit (except in the highly marked form 'you do that'). As they convey information about a process, imperatives are considered to realise ideational information and to be Topical Themes. Though they are not considered to realise interpersonal information, Hyland classes imperative forms as one of a group of structures he calls demonstratives, which, he observes, have interpersonal functions. He writes that demonstratives are

…essentially interpersonal features that contribute to the dialogic dimension of academic genres. They explicitly signal the presence in the text of both the writer and a reader whose attention is being directly captured and focused. (Hyland, 2002b:227)

Imperatives differ from interrogatives, another structure which functions as Theme, by 'avoiding any identification of the individual who is obliged to act or think in the way directed' (Hyland, 2002b:227). They are like interrogatives, however, in being a function of the mood block and construing exchange relationships in the clause. Finite interrogatives, as we have seen in discussion of interpersonal Themes, place the writer in a relationship of seeking verification of a proposition by reversing the mood block, that is, of seeking information in exchange theory. This relationship is one in which the writer places his proposition at risk so that in using a finite interrogative, the writer

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opens up the text to the reader and invites interaction. Imperatives place the writer in a different relationship with the reader, that of demanding goods and services. Hence, selecting an imperative as Theme could be seen to limit the possibility of interaction to that of compliance or refusal to comply. It is this potential that leads some authorities to describe them functioning in discourse as 'bald-on-record threats to face' (Brown & Levinson, 1987; Myers, 1989) and, as such, might construe a writer-reader relationship of unequal power (Swales et al., 1998). Though they have this potential, imperatives are employed for several purposes in academic writing. They are used in methods sections of scientific articles to indicate techniques of research and they are used when brevity is an issue (Myers, 1989:21; Swales et al., 1998:111). Hyland identifies three major functions of imperatives: as a discourse directive, as a directive to a reader to do something and for the rhetorical purpose of emphasis (Hyland, 2002b:218).

It will be clear from this discussion that, although, in terms of Theme/Rheme organisation, imperative structures place topical rather than interpersonal information in Theme, they are intimately associated with tenor and speech function. They construe interaction but also have the potential to realise an impersonal relationship with the reader. Therefore, the choice of imperative as Theme is analysed as influencing both interaction and tenor.

Halliday (1994:47) states that there are two linguistic structures categorised as Themes encoding the imperative voice, and examples of these are found in the example below.

Example 54: Imperatives as Topical Theme

Let \ me know   (PaulJ.25/5.17.58.cl.3)

Focus \ more attention on the customer perspective   (Martin.tma1.cl.163)

8.7.3 Predicated subject as Topical Theme

The analysis of predicated Theme is based on an understanding of predication as a shift of given and new information through a process of Theme predication. The given information in Theme is moved into New by the use of an 'empty' constituent *it*. In Example 55, the given information '*only through the use of a management tool such as*

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the 'Balanced Scorecard' is moved into New by the predication so that the Theme is clausal (Eggins, 1994). Based on this analysis, clauses such as this one will be analysed as a clausal Topical Theme.

Example 55: Predicated clause as Topical Theme
It is only through the use of a management tool such as the 'Balanced scorecard' \
that these similarities can be recognised. (Elenna.tma1.cl.67)

8.7.4 Anticipatory "it" clauses as Topical Theme

In this thesis, clauses using an anticipatory *it* followed by a finite clause are considered as projecting clauses realising objective orientation. It is argued that the evaluative preface clause that projects the proposition functions as an interpersonal Theme. Rhetorical and evaluative functions are ascribed by some scholars (e.g. Hewings and Hewings (2002) and Thompson 1996) to a similar structure in which a comment or preface clause with an anticipatory *it* structure is followed by a non-finite clause (Example 56). However, in an analysis that focuses on the role of subject, the subject is difficult to establish in these clauses because they have a non-finite extraposed form as in Example 56.

Example 56: Anticipatory "it" as Topical Theme
It would be impossible \ to run an organization such as B without one. (Alex.tma1.cl.38)

An argument might be made that the non-finite clause *to run an organization such as B* is the subject. In fact, it is the only possible subject given that *It* is semantically empty and cataphoric in its reference (Halliday 1994:98). Even so, it is difficult to consider this as the Topical Theme of the clause and, if it were considered as such, there would be no Rheme. For this reason, many scholars consider anticipatory *it* clauses such as this to be clausal Topical Themes and the present study has analysed them as such. In spite of this, their function in constructing the evaluative character of the texts needs to be recognised and therefore they are identified as evaluative Themes that encode objective modality in the discussion of the results.

8.7.5 Thematic equative as Topical Theme

Halliday (1994:40) considers these as simple Themes in which two or more separate elements are grouped together to form a Theme. The Theme in this structure is an identifying clause in a relational process (ibid:40). Thompson (1996:127) posits that its function is to engage with the reader by raising a question by fronting a wh-element and then proceed to answer the question in the Rheme (see Example 57)

Example 57: Thematic equative
What is also interesting \ is that we have only been able to slightly add to each others ideas, rather than challenge discuss differences. (PaulnM.9/11.14.43.cl.2)

He also considers these structures to be subjects in the clause and this is how they are analysed in this study

8.7.6 Non-referential There as Topical Theme

In this study, non-referential *There* is analysed as Topical Theme. This status is also problematic because non-referential *There* is semantically non-specific and, in this sense, it poses a similar problem to the anticipatory *it* structure discussed earlier.

There are several views of the role of non-referential *There* in the clause and hence its role as Theme. Halliday regards its function as identifying the existence of an entity or a happening. He maintains that it 'has no representational function, but it is needed as a subject' (1994:142). Because of its subject role, he analyses *There* as Topical Theme. The role of *There* as Theme is supported by Martin, who argues for its role as proclaiming existence and its role in discourse organization:

> The existential clauses ....are ideally designed for introducing participants as unmarked news at the end of the clause ...and reinforcing their introduction by taking their existence as a point of departure (i.e. Theme). The reason for this is that the unmarked Theme (i.e. the Subject) of this clause type does not realise a participant, but functions simply to map the meaning "existence" onto Theme. (Martin, 1992b:171)

Thompson's (Thompson, 1996) solution considers non-referential *There* as Topical Theme, but departs from other authorities (e.g. Halliday, 1994:44) who consider that the existent *There* alone has Theme potential. Thompson includes the process in Theme:

Example 58: Non-referential There
There is \ something special about this situation. (Thompson, 1996:138)

Thompson argues that 'the existence is signalled not just by 'there' but by 'there' plus the existential process' (1996:138). He further argues that the inclusion of the existential process solves the problem of the 'empty' semantic nature of *There* by providing experiential content. The advantage of this interpretation of Theme for the present study is that modality and other modification that is incorporated in the process of a *There* structure is included in the Theme.

Distinguishing between the various functions of *There* would require a level of delicacy in analysis that is not possible in the present study so for practical reasons, I will follow Thompson's method of analysing *There* + process as a Topical Theme.

8.8 The choice not to use a Theme/Rheme structure

As the notion of Theme in this study is a two-part one, in which the subject is an obligatory Theme, expressions that do not have a full mood structure, with a main participant/subject and verb, pose problems. Halliday observes (1994:61) that dependent and non-finite clauses, as well as independent clauses, have Theme/Rheme structure, but the unit of analysis in this study is the clause complex, and the corpora proved to have a variety of linguistic figures that did not meet the criteria of independent clause and, hence, lacked a full mood structure. It was, therefore, difficult to analyse them, but they seemed important features of the argumentation.

I suggest that the choice to use these structures is rhetorically motivated and, hence, I have analysed these language structures into broad categories. Included in this section is a discussion of Rheme-only clauses. Although it may appear inconsistent to include these with structures that avoid Theme/Rheme organisation altogether, I will suggest that Rheme-only clauses in the corpus in this study are a choice not to engage with a full

Theme/Rheme structure, so they are included with other choices in which Theme/Rheme is avoided and discussed in this section.

8.8.1 Minor clauses

Absence of transitivity and mood is associated with lack of Theme/Rheme organisation. Both Eggins (1994:288) and Halliday (1994:43) stipulate that minor clauses, which are defined by having no mood or transitivity, have no Theme/Rheme structure. The examples of minor clauses given by these scholars are either largely expressions such as *Wow* (Halliday, 1994:95) or phatic phrases e.g. *Oh good* (Eggins, 1994:288). In the present study, the presence of minor clauses of the latter kind are found as salutations at the end of the email messages and analysed as minor clauses with an interpersonal function, but no Theme/Rheme structure:

Example 59: minor clause
Best regards (Martin.3/12.19.11.cl.18)

These clauses are, however, considered to have a speech function as they are offering a greeting and so they are analysed as an offer in a goods and services analysis.

Almost all the messages were ended by the writer giving a name; hence Example 59 above is followed by the writer adding his name 'Martin.' In the study, these are not considered to be thematic, as they do not signal who is being addressed and are not part of a clause complex. Their function of indicating the sender of the message is made somewhat redundant by the automatic 'from' line in the electronically generated email format. Therefore, their undoubted interpersonal function is analysed outside the Theme/Rheme analysis as a minor clause.

8.8.2 Rheme-only clauses

Other clauses are considered to be Rheme-only and, as mentioned earlier, should be included in discussion of the Theme/Rheme analysis. However, in terms of defining them, they are so closely related in their structure to the kinds of utterances discussed in this section that I shall discuss them here.

Rheme is the part of the clause that is not Theme and contains the process and predication and is often the focus of new information, (except, of course in the case of 'There + process'). By definition, Rheme is subjectless and, according to Butt et al. (1994), does not have a mood block. Thus, they claim, Rheme is meaning which is not available for argument. In the analysis of Rhemes in the Results, this point will be further discussed.

Rhemes without Theme are common in spoken conversation where the Theme is ellipsed (Thompson, 1996:125). As Eggins and Slade write of casual conversation

> ...full clauses are produced when speakers are attempting to initiate a new exchange, i.e. when they wish to establish material to be reacted to. However, when interactants react to prior initiations, they typically do so elliptically, producing clauses which depend for their interpretation on a related full initiating clause. (Eggins & Slade, 1997:89)

Eggins adds that 'when a speaker produces a declarative as a responding move, they will frequently omit all but the informationally significant components of the structure' (Eggins, 1994:90). Based on this, the following structures have been analysed as Rheme, although in the exchanges in Example 60, more than the Theme is ellipsed, and the full predication is not present. In these examples, the clauses analysed as Rheme are a response to the clause immediately prior. In each example, the clause in italics was cut and pasted by the writers, Matt and Tricia, from a previous message. Each writer has then replied and the reply is emboldened.

Example 60: Rheme

	Theme	Rheme
cl.11	*>One area that is highlighted*	*is the tendency to ?blame?, resulting in bad news being hidden.*
cl.12		**Lost learning opportunity perhaps?**

(Matt.2/3.14.02)

	Theme	Rheme
cl.8	*>My initial thoughts*	*seemed to divide the seven organisations into 2 groups*
cl.9		**My first thought too**

(Tricia.2/3.18.25)

Another kind of Rheme structure is less easily identifiable because it is not associated with adjacency pairs and other conversational forms. In Example 61, there is only one 'speaker', Adrian, and he has chosen to elide the subject and the verb *This is* and leave the reader to do the substitution.

Example 61: Rheme

	Theme	Rheme
cl.39	– different Business Unit Leaders	were vying for the same resources (the same few proactive, dynamic individuals who effectively contribute to change programmes) while those members of staff still have a day job to complete.
cl.40		**A case of conflicting priorities within an overall change programme**

(Adrian.tma5b)

A final version of Rheme without Theme is, I suggest, the result of condensing information and focusing on conveying facts as 'efficiently' as possible, and, hence, may be a response to discourse values and conventions. These are almost always part of a list. They are set out on the page or in the email in a sequence such as in Example 62. Clause 49 seems to be predication, with the subject elided, so I analysed the predication as Rheme.

Example 62: Rheme

	Rheme	
	Ethics	
cl.49		(not really a concern as we neither can nor want to satisfy all demands of all companies and do not pose any harm to environmental or other public concerns through "producing" software)

(Jonas.tma1)

8.8.3 Nominal structures without a Theme/Rheme organisation

A more difficult class to analyse, but common in the data, are structures such as in the extract copied here from a CMD discussion text (see Example 63).

Example 63: Analysis of condensed language

cl.17	*Looking at the four E's, we can summarize the following to be important factors.
st.18	*Economy
st.19	costs of infrastructure use
st.20	cost of personnel/staff
st.21	delivering healthcare within budget
st.22	*Ethics
st.23	delivering affordable and high quality healthcare to the patients
st.24	maintaining a good reputation among patients and media
st.25	equal opportunities goal
st.26	*Efficiency
cl.27	"process" certain number of patients)

cl.28	(we know the verb might be slightly wrong ;-)
cl.29	(this includes the impact on waiting times)
cl.30	*Effectiveness
st.31	quality of operations and services performed/success rate
st.32	waiting times from a consumer/patient's perspective

(Jonas.8/11.18.11)

There are three headings: *Economy Ethics Efficiency* and lists of experiential information. These are not explicitly connected to any other structure, although their role in organizing information is apparent (Brown & Yule, 1983:139). One solution may be to analyse structures such as st.18 as hyper-Theme or macro-Theme, but Martin's discussion of macro- and hyper-Themes (1992a:437) suggests that these structures are either clauses or groups of sentences with full transitivity. Macro-Themes are defined as

> A sentence or group of sentences (possibly a paragraph) which
> predicts a set of hyper-Themes; (Martin, 1992a:437)

Hyper-Themes are:
> An introductory sentence or group of sentences…(ibid 1992a:437)

It has already been argued that the structures under discussion are not sentences and so, even if a macro-Theme or hyper-Theme analysis were included in this study, these structures would, I believe, not be included. Halliday (1985a:63) compares 'items such as titles and labels' to minor clauses by the fact that 'They have no thematic structure either' and 'they have no independent speech function'. When writing about 'little texts' Halliday (1994:395) identifies structures as an 'unattached nominals' that have no speech function and 'no Theme Rheme structure' (ibid:394). In Example 63, structures *18; 19; 20; 22; 25; 26; 30; 31;*and *32* have similar characteristics. They are nominals,

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some with post-modification but no indication of speech function or mood. Structures *21, 23 and 24* are non-finite clauses with no agency and a very curtailed mood structure. The writer is communicating information without any possibility of counter-argument. Hence, I have classified them as Rheme-only and considered them as a resource used by the writer for being categorical as no risk at all is taken in opening up statements such as these to contradiction. On the other hand, Clauses *17 27, 28* and *29* are analysed as having a Theme/Rheme structure.

Another structure found in the corpus is note-form. Where these have a transitivity structure they are analysed as Theme. This is based on Halliday's (1994:392) analysis of several forms of 'little texts' which are highly condensed language. He suggests that where the transitivity structure is present, these can be thematic. In Example 64 there is a transitivity structure so the clause is analysed as Topical Theme (emboldened) with Rheme.

Example 64: Theme/Rheme with finite omitted
Bonuses \ not paid if overall Performance Targets not met (Shell). (Alex.5/12.11.16cl.46)

A final structure caused problems in analysis (see Example 65). Though the fragment has a nominal as its head, it is heavily post-modified and has elements of transitivity. It is New information which is given no context as it does not follow a structure that could be considered as Theme. I tentatively categorised them as Rheme-only as they do announce New and have a possible ellipsed Theme such as *These are* in the example below. These structures are associated with students who use a heavily condensed style in which they use note form in their assignments and impart information by using structures such as these.

Example 65: Rheme with no Theme
Conclusions that I have made from looking at MSGC Ltd. and B.E.LL on differences and similarities in their respective approaches to performance measurement.
(Alex.tma1.cl.123)

The results of the analysis using these configurations of Theme are reported in the next chapter.

9 Results and discussion of the Theme analysis

9.1 Introduction

In the first section of this chapter, the overall results are presented as numerical comparisons of the distribution of Theme in the CMD corpus and ASSIG corpus. This is followed in the second section by a discussion of the implication of these choices for argumentation, aided by more detailed comparisons of Theme choice.

The results show that the students drew on a whole range of resources as Theme to argue in both media. A complex and multifarious use of Theme choice in the CMD corpus has produced very interactive, and in Thompson's and Thetela's (1995) terms, interactional discourse. The CMD corpus is not only interactive, but Theme choices throughout suggest that students are taking a stance and engaging in argumentation. These choices of Theme also seem to be rhetorically motivated to produce a tenor of solidarity, with the consequence that their argumentation seems to be akin to cooperative, aligned and associational forms of argumentation referred to in Chapter 2.4 and Chapter 5.2. The Theme choice in the ASSIG corpus indicates a much less interactional and interactive discourse, and overall, in this corpus, there are fewer uses of Theme to realise evaluation. There are also fewer uses of Theme to construct a tentative stance and less indication that the students were engaging with two points of view in their argumentation.

It would misrepresent the argumentation in both corpora, however, to focus only on the differences, as there are many similarities in Theme choice between the two corpora, the implications of which will also be discussed.

The unit of analysis is the conjoinable clause complex (t-unit) and, where applicable, all results are given as the number of Themes per 100 t-units. Undecipherable structures (ind), direct quotations from course authorities and copied messages (na), plus the projX

computer generated phrases were left out of the analysis. The total removed is shown in Table 16.

Table 16: Structures not analysed

	CMD	ASSIGN
Clauses not analysed (na)	146	22
Undecipherable (ind)	4	8
Computer generated phrase (projX)	95	0

9.1.1 Distribution of Context Frame Themes in the corpora

The results[15] show that there were differences between the corpus of computer-mediated conferences (CMD) and the assignment corpus (ASSIG) in the use of Context Frame themes, with *55.83* per 100 t-units in the CMD and *42.14* per 100 t-units in the ASSIG.

Table 17: Deployment of CF Themes and Topical Themes in first position per 100 t-units

	CMD	ASSIG
Topical Theme in first position in sentence	38.02	54.96
CF Themes in first position in sentence	55.83	42.14

Table 17 shows that Topical Themes in first position in the clause were far more common in ASSIG, while CF themes in first position are more common in CMD. The findings from other studies using a notion of Context Frame Themes or orienting Themes, cited in Chapter 6.8 seem to indicate that the choice not to use Context Frame Themes is associated with discourse in which facts are regarded as given and not debatable and overt writer visibility is low. In contrast, choices to use Context Frame Themes (CF) is associated with rhetorical intervention, which, in Gosden's (1992) and North's (2003) studies, means texts in which the writer intervenes to evaluate and persuade. The deployment of CF in CMD and ASSIG in the present study would therefore seem to indicate that there is more overt persuasion and evaluation in CMD. How the students use Theme to produce these rhetorical interventions, and the nature of

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[15] Appendix 3 gives the numerical results in full.

this intervention, is revealed by a more detailed analysis of the Theme choices in the CF and in Topical Theme.

9.1.2 A comparison of Context Frame Theme choices

Context Frame Theme choices for CMD and ASSIG are shown in Table 18. Each metafunctional category is presented as a measure of the number of Themes per 100 t-units.

Table 18: Comparison of the deployment of C. F. Themes per 100 t-units

	CMD	ASSIG
Textual Themes	22.68	21.57
Interpersonal Themes	28.33	6.15
Experiential Themes	17.30	20.90

The most obvious difference in Theme choices is in the use of interpersonal Themes, with less numerical difference between corpora in the use of experiential Themes and little numerical difference in the deployment of textual Themes. The distribution of interpersonal Themes is shown in Table 19.

Table 19: Distribution of interpersonal Theme per 100 t-units

	CMD	ASSIG
modal/comment adjuncts	4.42	2.12
projecting clause realised as objective modal metaphor	1.89	1.40
projecting clause realised as a subjective modal metaphor	7.71	1.15
other projecting clauses	1.53	1.04
finite interrogative	6.94	0.42
vocative	5.86	0.00

9.1.3 Distribution of Topical Themes in the corpora

Table 20 shows the distribution of constituents chosen as Topical Theme in each t-unit.

Table 20: Distribution of Topical Theme per 100 t-units

	CMD	ASSIG
total Topical Themes	88.61	97.26
anticipatory *it* clausal Theme	1.30	1.26
imperatives	1.10	3.73
predicated clause	0.73	0.59
Subject	85.49	91.67

Topical Theme occurs less often in CMD because of the greater use of Rheme-only clauses and other informal structures. Imperatives as Theme occur more frequently in ASSIG and choice of anticipatory *it* clausal Theme is similar in both corpora, while predicated clausal Themes are used very little in each corpus.

9.1.4 Choice not to use Theme/Rheme organisation

The analysis revealed that several structures that do not use a full Theme/Rheme organisation contribute to the argumentation. These were Rheme-only clauses, unattached nominals and minor clauses. Giving numerical value to these structures is somewhat complicated. In order to show their comparative distribution, I included the Rheme-only clauses in the Theme/Rheme analysis because the writers were utilising this message structure but choosing not to use Theme. The numerical use of these features is therefore presented in the same way as Theme choices, that is, as deployment per 100 t-units.

Table 21: Choice to use Rheme-only per 100 t-units

	CMD	ASSIG
Rheme - only	4.75	2.04

The unattached nominals, by definition, are not clauses, having no transitivity and no mood structure, and in that sense, are like minor clauses. For the purpose of calculation, their use per hundred structures is based on the total number of structures in the whole

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corpus. The total number of structures is the total number of t-units plus the total number of unattached nominals and minor clauses. Table 22 shows the distribution based on this calculation

Table 22: Structures without a Theme/Rheme organisation shown as per hundred structures

	CMD	ASSIG
structures without Theme/Rheme organisation	8.52	12.03
minor clauses	7.37	0.0

This shows CMD has more Rheme-only choices, more minor clauses and fewer unattached nominals.

9.2 The implications for argumentation

Discussion of the significance of these deployments of Theme for argumentation will be based on a framework of interpersonal management, derived from the discussion of Thompson and Thetela's (1995) and Thompson's (2001) framework in Chapter 3.2, plus semantic and conjunctive relations. Theme will be analysed to discern how it provides a resource for realising personal functions of modality and evaluation, for realising the interactional function and for realising logico-semantic relations. Separating argumentation into these categories inevitably places demarcations between functions which are interrelated. This is particularly apparent when some of the resources discussed construe more than one function at the same time and is a consequence of the multifaceted nature of argumentation. With these caveats, the framework will be used to organise the discussion of Theme choices contributing to evaluation.

Chapter 3.6 established that evaluation is constructed by many structures of the discourse. It functions to express the writer's opinion and, in so doing, evaluation expresses the value system of the community. It also constructs and maintains relations between writer and reader (Hunston & Thompson, 2000:6). Therefore, in this section, the students' choices of Theme are discussed, both for what they contribute to evaluation, and also for the kinds of participant relations they construct. CF Themes and Topical Themes and some Rheme-only clauses were found to contribute to the evaluation.

9.2.1 Projecting clauses as a Theme choice for evaluation

Table 19 categorised projecting clauses into three categories, projecting clauses realised as subjective modal metaphors, projecting clauses realised as objective modal metaphors and projecting clauses construing modality through the use of reporting verbs (see the discussion in 8.4.2). It was argued in that section, and elsewhere in the thesis, that projecting clauses indicate degrees of writer commitment to a proposal and, hence, instantiate both subjective and objective epistemic modality. It is immediately obvious from Table 19 that projecting clauses, realised as subjective modal metaphors, are chosen much more frequently in the CMD corpus. This denotes a more subjective form of evaluation in the CMD in general, and a more tentative signalling of writer commitment and hence, signals a different form of argumentation from that found in the ASSIG corpus.

Earlier in the thesis, it was also argued that use of projecting clauses also enables the writer to make other meanings. Projection also identifies the source to which a proposition is attributed, and this, it was argued, can indicate both the register of the text and the values of a community. As a form of hedging, projecting clauses can signal tentativeness that opens up an argument to challenge, or at least response, and so plays a part in interpersonal positioning.

As the use of projecting clauses is a prominent feature of the CMD argumentation, and as choice of source is significant for the construal of argumentation, the projecting clauses in the data have further been categorised as follows: self as source, other as source, and objectified source. This is a further categorisation which subsumes the three categories of projecting clauses found in Table 19, focusing this time on the attributed source. It reveals that the attributed source in the projecting clauses is significant in constructing different forms of argumentation.

9.2.1.1 Self as source

Students used self as source to realise stance, to align their views with other students views and to construct a non-formal tenor, as the examples from the corpus below illustrate.

Self as source

Example 66

> *I think that* **they** \ give a realistic insight into expectations and budgets.
>
> (Mel.25/11.20.59.cl.17)

Self as source: Non-congruent evaluation

Example 67

> *I had a feeling that* **6-Sigma** \ would raise the debate!! (Paul.28/05.09.04.cl.2)

Self as source: aligned position

Example 68

> *I agree* **there are** \ many stakeholders which prioritize different aspects or goals as a measure of performance. (Jonas.7/11.18.34.cl.2)

Example 69

> *Martin, yes, I think you* \ are right that it might be more of a cultural thing rather than just solely the size of the company (Jonas.28/11.18.14.cl.5)

As self as source foregrounds the writer in taking responsibility for the proposition and as there are far more of these structures in the CMD, it follows that in this corpus, self is considered a valued source for propositions. In the ASSIG, there are far fewer projecting clauses with self as source, suggesting that self is not a valued source in the ASSIG corpus. The reason for this may be due to disciplinary practices. Myers observes that

> Business researchers don't seem to refer to themselves as arguing
>
> or presenting an opinion. (Myers, 2001:70)

How far the students are influenced by disciplinary norms is not known, but the limited use of self as source in the ASSIG corpus may indicate that some influence of disciplinary conventions and disciplinary epistemology exists. The lack of self-sourced projecting clauses in the ASSIG may also suggest that the students are reluctant to foreground their own opinions in this mode, or they may be marking the fact that the opinions are not their own. However, analysis of the Theme choices in individual

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students' assignments (see Chapter 10.1.9) shows that the use of subjective modality realised in projecting clauses is absent from the assignments of students with higher grades and more prominent in lower-attaining students. This suggests that not to thematise subjective modality may be a choice influenced by some knowledge of academic or business norms.

Given the extent of the selection of self as source in the CMD, I suggest that this was selected to meet another social purpose besides construing epistemic modality. Studies of computer-mediated discourse, referred to earlier, emphasise the importance of the construction of a cooperative tenor, and it is likely that these structures have a function in constructing such a tenor. There is support for this in the study by Myers (2001), referred to in Chapter 3.5.5, in which he argues that self-reference in structures such as *I think* constructs tenor relations in terms of mitigating face threatening acts (Brown & Levinson, 1987). This function, he further argues, may supersede the epistemic function. Thus, the tentativeness realised by these subjective projecting clauses avoids a too stark contradiction of other students' views and keeps the argument open to negotiation. This is given further credence by instances where two modalised structures occur in the same projecting clause. In Example 70, a subjective modal metaphor is used together with an objective modal metaphor and this seems to mitigate the emphatic use of anticipatory *it* (see (Hewings & Hewings, 2002).

Example 70: Thematised projection
I think that it is obvious that **an organization** \ bases its performance judging towards what it does. (Alex.5/12.11.16.cl.16)

In this example, it is also possible to analyse the clause so that the objective modal metaphor *it is obvious* is the Topical Theme, but for reasons discussed in Chapter 8, these structures are regarded as evaluative prefaces of a proposition which has both a subject, verb and predicate and, hence, they are considered to have an interpersonal function. This instance of real language cannot be captured by the two-part definition of Theme.

Another function of self-sourced projecting clauses is to construct a non-congruent form of evaluation. This use of projection is found only in the CMD corpus and shown in Example 67:

I had a feeling that **6-Sigma** \ would raise the debate!! (Paul.28/05.09.04.cl.2)

Cloran argues that the projecting clause in these structures reflects the writer's state of mind rather than an epistemic stance. She writes that the projecting clauses 'are a reflection on the projected message rather than function to project information' (Cloran, 1995:380). In Example 67, the writer is referring to a previous point he had made about 6-Sigma, stating that he had foreseen that mentioning this would cause controversy. He is therefore offering an opinion and taking a stance on the controversial nature of 6-Sigma. In this case, there does seem to be an evaluative function for the reflection of feelings, albeit, non-congruent and hence the reason for including this structure in the discussion of Themes used to construct argumentation.

Other examples in which the writer reflects a state of mind in the preface clause are:

Example 71
a) *[I am] Glad* **you** ...\ think it was well thought out at VYG. (John.4/6.15.54.cl.2)

b) *I hope* **this** \ helps. (NeilV.6/3.18.47.cl.14)

These seem, as Cloran suggests, to project a state of mind, rather than take an epistemic stance. These Themes seem to construct a friendly and cooperative tone and this points to their interpersonal function, coming as they do in the conference messages. I suggest that these structures may have an interactive function that promotes solidarity in the computer conferences.

Self sourced projecting clauses in the corpus are also used to align the views of the writer with other students in the group. Again, these are almost entirely found in the CMD. An example of this is the choice of the reporting verb *agree* in the projecting clause, as shown in Example 68:

I agree **there are** \ many stakeholders which prioritize different aspects or goals as a measure of performance. (Jonas.7/11.18.34.cl.2)

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This choice works to construct a dialogue with the reader and acknowledges another in the text (Thompson & Ye, 1991:370). In this way, the writer is aligning himself with the opinions of others in the discussion group.

Complex intertextuality is also called into play in the use of projecting clauses, as illustrated by another example of self as source, Example 69. This complexity is found only in the CMD corpus:

Martin, yes, I think you \ are right that it might be more of a cultural thing rather than just solely the size of the company (Jonas.28/11.18.14.cl.5)

In the example, the Theme is underlined. The complement clause following *that* is also semantically a proposition:

it might be more of a cultural thing rather than just solely the size of the company

It could therefore be argued that *you are right that* is also a form of comment on this proposition. As in a similar example discussed above (Example 70), there are instances of usage that cannot be captured by the notion of a bi-partite division of Theme as CF and obligatory topical Theme.

Self as source, therefore, provides opportunities for constructing stance while mitigating face issues. It also provides opportunities for creating alignment and so shapes the style of argumentation being constructed.

9.2.1.2 Other as source, internal to the cluster group

It can be seen that the students use projecting clauses as a resource to align their arguments with other students and this kind of thematisation is used only in the CMD. Four categories are found in the corpus: inclusive other as source, directly addressed other as source, non-defined *you* as source and other students as source.

Inclusive other as source

Example 72

> *Our cluster group suggested that* **the individual measures** \ could be focused into the categorisation defined by the '4E's' (DaveP.8/11.16.15.cl.40)

Directly addressed other as source

Example 73

> *You mentioned that* **EJ** \ were keen to 'portray the takeover as a merger'
> (Elenna.25/5.19.22.cl.3)

Non-defined "you" as source

Example 74

> *You'd think* **it** \ would make it easier, (Jon.3/6.16.35.cl.4)

Other students as source

Example 75

> *Daniel points out that* as the organisation is becoming more target and sales orientated, **the work processes** \ are not ready to handle the greater workload which leads to dissatisfaction among the managers. (Jonas.7/3.18.07.cl.9)

In Example 72, the student is supporting the claim made in the projected clause by aligning himself with the position taken in his cluster group.

Two attributed sources of propositions, thematised in the CMD, are also interactional resources which are used to construct an interactional text. These are the use of direct address of another student *you,* and non-defined *you* as source. Thus, in Example 73,

You mentioned that **EJ** \ were keen to 'portray the takeover as a merger'
(Elenna.25/5.19.22.cl.3)

the directly addressed *you* is positioned as source of the proposition, and, even if the writer goes on to offer reasons why the proposition is not true, the acknowledgement of *you* creates an alignment.

The use of non-defined *you,* as in Example 74 also constructs alignment:

You'd think **it** \ would make it easier, (Jon.3/6.16.35.cl.4)

This structure has been shown by Hunston (1989) and Thetela (1995) to attribute a statement to others in the reading community. In this way, non-defined *you* constructs

agreement with the values of that community. The frequency with which propositions are attributed to other students in the CMD corpus suggests a desire to construct solidarity and a tenor in which expressing difference may be risky. Certainly, the choice of this resource in the CMD suggests that consensus is valued in this mode and hence shapes the argumentation.

There may be another consequence of students aligning their arguments with that of others. I suggest that resources that promote alignment between arguments play a part in structuring the reasoning repertoire of the students. In this way, they are provided with arguments to draw on when writing their assignments. As this is one of the pedagogic purposes of the conferencing (Salmon, 1998), this function is very important.

The resources discussed in this section indicate that, in their CMD conferences, the students place a high value on recognising the contribution of other students' arguments and place an equally high value on incorporating these arguments into their own, where possible. I have suggested that this contributes to an overall tenor of solidarity.

9.2.1.3 Others as source, external to the discussion groups

The use of *we* as a source to align the students with their businesses is considered as an acceptable source in the argumentation in the CMD as shown in the example:

Example 76: Other as source: the students' businesses
We realise that **any changes not managed correctly** \ will cause more harm than good, (PaulJ.28/5.09.04.cl.14)

This form of attribution is not found in the assignment corpus even though the assignment tasks require the students to draw on their own businesses to support or criticise the theory in the course. Again, these differences in the use of source differentiate the argumentation.

Academic authorities as source (see Example 77) account for only three instances in the CMD corpus, but account for many of the uses of projection in the ASSIG corpus (*19 out of 39* realisations of projection).

Example 77: Academic authorities as source

Traecy and Wiersema state that **the value propositions** \ are not mutually exclusive and more attention could be placed on the customer aspect of the business. (Martin.tma1.cl.168)

Given that attribution in general is infrequent throughout the ASSIG corpus, these numbers show that making course authorities and concepts a thematised source is a very infrequent choice in either corpora, but more likely to occur in the ASSIG corpus.

References to course authorities do occur in Rheme and sometimes as Topical Themes in both CMD and ASSIG, but particularly in the ASSIG corpus. However, propositions are not attributed to them. It seems that 'others' as voices in the text only applies to other students and their businesses in the CMD corpus, while in the ASSIG corpus, attributing one's statements as a projection of other's ideas is not an aspect of the register of this corpus. Just as Myers (2001) identified a reluctance to refer to self in Business writing, Fairclough and Hardy (1997) found that attribution of a proposition to other sources was not a feature of academic management writing. These scholars hypothesised that the writers sought to attain an authoritative voice and attribution militated against this tenor. As I commented before, the students in the present investigation may have been influenced by wider generic considerations in their assignments. This is likely because the frequent use of attribution in the CMD does indicate that they know how to use this resource, both as a way of realising epistemic modality and of hedging.

9.2.1.4 Objectified source

Thematised projecting clauses realised objective modality in both corpora. As Table 19 showed, the distribution of objective modality realised as thematised anticipatory *it* is almost the same in each corpora (CMD *1.89* t-units per 100; ASSIG *1.40* t-units per 100). The example is drawn from the CMD corpus.

Example 78: Objective modal metaphor as Theme

It is possible that **her approach** \ would have been different had she had more knowledge of the industry and more support from other senior staff. (Elenna.tma5a.cl.54)

This Theme choice is, however, one of three choices which are selected equally often in ASSIG, whereas in CMD, as we have seen, modalised projection with subjective modality is by far the most frequent choice. It seems that subjective modality is not chosen instead of objective modality in CMD, but as well as, and used to mediate many more claims.

The final category of source constructed by projecting clauses in Theme was little used in either corpora but is included in this discussion as it signals an academic register:

Example 79: Objectified source

The emphasis on self-development and responsibility, through coaching and empowerment, suggests **strong self-control** \ is necessary. (Adrian.5/4/.00.12.cl.29)

This form of projecting clause was referred to in Chapter 8.4.2.2, where is was stated that Davies (1988) considers structures such as this to construe an objective voice. In these structures, the writer's opinion is attributed to an entity, a finding in the text. By selecting this structure, the writer confers a strong agentive role to a grammatical metaphor encoding disciplinary concepts. As complex nominals are considered to realise abstraction and generalisation (Halliday, 1985b), this is, therefore, a resource for realising an abstract form of argumentation, characteristic of the academic field, and is consequently indicative of register (Hunston, 1993b). Discussions so far would seem to indicate that these structures are more likely to occur in the ASSIG corpus, which is less subjective in its modality, and does not prioritise self as source. Contrary to expectation, the use of complex nominals in projecting clauses, such as that in Example 79, is evenly distributed between corpora. Further, they are infrequently used in either corpora. This suggests that the students' range of resources for realising abstraction and a disciplinary focus is limited in both corpora. It also indicates that, on the occasions they are selected, academic forms of argumentation are possible in the CMD.

9.2.1.5 Projecting clauses as Theme: Conclusion

In both corpora, epistemic modality is realised through the use of the Thematic device of projection, but taking a stance is far more evident in the CMD corpus. This suggests that, in their on-line discussions, students are arguing and they are arguing about course

concepts. The intertextuality constructed by the thematised projection may enable the students to align their arguments and build on other students' points. In this way, they may well be scaffolding reasoning (Ninio & Bruner, 1978), that is, supporting and extending each other's arguments and this may support their argumentation in the assignments. There is evidence in both Prosser and Webb (1994) and Campbell et al. (1998) that opportunities to process and conceptualise assignments before writing has significant effect on the organisation of argumentation in university students' assessed essays and therefore, the on-line activity may contribute to the students' academic argumentation in this way. This point is taken up in Chapter 10.1.7.

In their CMD discussions, the students seem to use every opportunity to foreground themselves and their evaluating activity. This is to the extent of using non-congruent forms of reflective projecting clauses. Self source seems to be a way in which they can achieve two goals, evaluation of propositions and mitigation of any face-threatening acts. They, therefore, achieve a tenor of solidarity yet still take a stance. By selecting as their source other students, and using projecting clauses to directly address and attribute other students' ideas, the participants in the study seem to achieve a particular register of evaluation in which challenge and conflict are avoided.

The absence of projecting clauses as Theme, plus the limited use of other interpersonal Themes, seems to indicate that the values of the register constructed in the ASSIG corpus is very different. Although propositions are not attributed to self in this register, attribution to course concepts, or to academic authorities, do not seem to be valued either. This suggests a very different register.

9.2.2 Circumstance Themes of angle

Circumstantial Themes of angle in the form of circumstantial adjunct and hypotactic clauses (see Chapter 8.5) are another resource for attributing a proposition and providing its source. The students used a wide variety of prepositional and non-finite clauses, and a variety of hypotactically related finite clauses, as circumstance Themes of angle. The distribution of these Themes (Table 23 and appendix 3), shows that the

selection is very similar in each corpus, so just comparing their numbers will not reveal the different registers and different values they embody.

Table 23: Circumstance Theme: angle as per 100 t-units

	CMD	ASSIG
angle	1.46	1.42

In CMD, circumstance Themes of angle are often colloquial and ellipsed. This is a kind of reporting without the reporting structures, using a preposition instead of a projection:

Example 80
<u>With Alex **it**</u> \ appears to be effectiveness (Mike.26/11.11.26.cl.7)

The co-text suggests that, in Alex's opinion, Effectiveness is the most important category of management.

In the CMD corpus, these Themes share some of the value characteristics of the projecting clause, though not their linguistic structure. They overwhelmingly mention self or other students (see Example 81).

Example 81: Experiential Theme: circumstance: angle
<u>AND as far as I am concerned **it**</u> \ is the worst one to use (John.2/12.19.54.cl.24)

Mention of other students is sometimes in the form of direct address and therefore another resource for creating solidarity:

Example 82: Experiential Theme: circumstance: angle
<u>As you stated in your TMA *Mel*, **the most frequent and probably important discussions**</u>
\ are the everyday chats and idea-bouncing. (Jonas 8/11.18.28.cl.12)

The reporting verb *state* and reporting of Mel's ideas shows that the writer was both attributing the statement to Mel and also conveying Mel's angle on the proposition.

In the ASSIG corpus, circumstance:angle contained far fewer references to self. This Theme type tended to concern some aspect of the field of the students' own businesses or the course theory (see Example 83) and therefore supports a view of argumentation in this corpus as developing the field as its primary concern.

Example 83: Experiential Theme:circumstance: angle

<u>As the C. change initiative (implementation of a new ERP system) shows,</u> **it is important** \ to ensure that commitment planning does not simply mean that managers "commit" human resources. (Tricia.tma5b.cl.47)

Circumstance Themes of angle, therefore, also construe evaluation and the choices students make reflect the developing account of differences between the corpora.

The analysis so far reveals a consistent pattern of differences between the corpora constructed by Context Frame Themes. Topical Themes also contribute to the evaluation and the results of this analysis will be discussed in the next section.

9.2.3 Topical Themes as a resource for evaluation

Anticipatory *it* as a Topical Theme has obviously evaluative functions and its distribution per 100 t-units is rather similar in CMD and ASSIG, with *1.30* per t-unit in CMD and *1.26* per t-unit in ASSIG, and so it could be argued that these Themes influence the argumentation in similar ways.

Differences in the categories selected by students as subject Themes in each corpus, however, construct differences in interpersonal positioning and in the 'involved' quality of the text and this results in differences between each corpus in the kind of argumentation constructed. Not only were there differences in the overall deployment of subject Themes per 100 t-units (*85.49* in CMD and *91.67* in ASSIG), but also the selection of pronouns as subject Themes differed greatly (see Table 24)

Table 24: Distribution of pronouns as Topical Theme per 100 t-units

	CMD	ASSIG
I	9.40	1.99
he	0.56	0.64
she	0.33	3.12
you	3.69	0.43
we	7.87	4.22
they	2.39	2.07
Total pronoun use	24.24	12.46

In CMD, more than half the subject Themes are pronouns and this is significantly different from the choices made in ASSIG. The significance of these differences for the argumentation lies in the kind of agency a writer constructs and grammatical subject plays a prominent role in this. The kind of agency assumed in academic writing is indicative of the writer's ability to communicate at a level of abstraction required for academic writing (Peck MacDonald, 1992). Whether this agent, who is doer of the action and who takes modal responsibility in a clause, is an object or concept associated with the discipline, or the writer herself, depends not only on the writer's competence, but also on the discipline and on the values of the discourse community.

This choice of agent also indicates what has status (Hunston, 1989, 1993a) within a discourse community and this may be an indicator of register. The ability to identify concepts that have status within a discipline and construe them as agentive in Topical Theme position entails the writer being able to encode an objective voice. Therefore, the differences in choice of subject Theme indicate what the students considered agentive and at what level of abstraction they chose to communicate.

The use of more pronouns as subject Theme in CMD than in the ASSIG[16] shows that students in their computer-mediated conferences express writer viewpoint and a subjective orientation in almost a quarter of their sentences. In this corpus, agency is

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[16] Choice of pronoun as subject Theme in the ASSIG corpus was increased by the design of TMA5a, in which the students had to assess the decisions of an imaginary character, Sally. They frequently referred to her by using the pronoun "she" and this raised the proportion of pronoun usage in the ASSIG corpus.

ascribed to people considerably more often than in the ASSIG corpus. Yates (1993) found that first and second person pronouns *I we* and *you* were used more often in his academic email conferences than third person pronoun *they* and suggests that this is a choice based on the mode. This pattern is also evident in the CMD corpus, in which the immediate members of the group are continually referred to each other rather than outsiders, a choice that may have constructed a collegiality (see Example 84). Another use of *I* found primarily in the CMD corpus constructs the writer as evaluator (see Example 85) and in the assignments, *I* was used primarily as an organiser of discourse (see Example 86).

Example 84: *I* as an interactive presence
<u>I</u> \ would be very interested to hear peoples' view on this topic. (Sean.06/03.14.10.cl.8)

Example 85: *I* as evaluator
I have to agree with your comments that **the control system** \is more suited to an assembly production line   (Dan.3/3.12.33.cl.13)

Example 86: I as an organiser of discourse
<u>I</u> \ will use the balanced scorecard to look at different aspects of performance

<u>AND</u> \ look at any similarities between the two companies.   (Neil.tma1.cl.8&9)

In comparing the two corpora, it is important to note that the students do, however, choose to make themselves the agent and source of evaluations in the assignments as well as in the CMD, but not nearly as often.

Use of *we* as Topical Theme follows the same pattern as the use of *I*. Students make this choice more frequently in the CMD corpus than in the ASSIG corpus. *We* as Theme in the CMD corpus realises cluster group solidarity when they make a claim on behalf of the whole cluster group and this use is thus a way of instantiating interactivity and aligned positioning:

Example 87: *We* as a member of the cluster group
<u>We</u> \ seem to broadly agree who the main stakeholders are: Patients Governments (local and national) The hospital,   (Martin.8/11.15.05.cl.1)

There is no use of *we* to refer to the cluster group in ASSIG, and this follows the pattern already established of the instantiation of a much less interactive text in ASSIG, in which any collaborative voice does not refer to the cluster group.

The other use of *we* as subject Theme is one that encodes a different subjectivity, that of their business persona, and it is used by the students in both the CMD and ASSIG corpora.

Example 88: *We* as a business persona
We   \ strive for efficiency in terms of producing high quality solutions with as little time as possible involved, (Jonas.tma1.cl.61)

This is the subjectivity chosen most often by the students in their assignment texts when they choose to explicitly take a subjective position and identify the source of a claim.

Choice of the pronoun *you* realises either direct address or hidden general attribution (Hunston, 1989). Students do not use thematised *You* as direct address in ASSIG, but *You* is frequently realised as direct address in CMD. This realises very different interpersonal positioning from that chosen by the students in their assignments. In the argumentation in the CMD texts, selection of this Theme positions the reader as judged by the writer.

Example 89: *You* as Topical Theme
You \ may well be right that our companies are responding to the same types of environmental changes (increasing customer power) (Tricia.2/3.18.25.cl.16)

The other interpersonal positioning realised by this Theme choice is hidden attribution (Hunston, 1989) in which *you* is used to refer to a generalised inclusive readership. Clauses 25 and 26 in Example 90 show the selection of hidden attribution in which the writer strengthens the proposition by implying that everyone will support the claim. Only two students in ASSIG corpus select this and these students used several grammatical structures associated with spoken language in their assignments. In the extract below, we can see how, in the CMD discussion, a student uses *we* as Topical Theme to include her business and *you* as a general inclusion which includes the reader. This is a way of suggesting that the proposition has general acceptance.

Example 90: Hidden attribution as Topical Theme

cl. 23	**Most of our work** \ involves a high level of customization, making extensive automation difficult although we do automate whatever we can (speeds up production, cuts costs).
cl. 24	**We** \ often develop entirely new, customized systems.
cl. 25	With this kind of work **you** \ do not always know exactly where you are going,
cl. 26	AND **you** \ need to adjust your goals as you progress,
cl. 27	SO *yes, I think* **it** \ does promote and require double-loop learning. (Tricia.24/3.22.21)

Several authorities have researched the use of pronouns in conventional (as opposed to on-line) professional and novice academic writing (e.g. Harwood, 2005; Hyland, 2002a; Tang & John, 1999) and have developed taxonomies of the use of pronouns which are more detailed than the one offered here. Though these taxonomies are not dissimilar to this one, they do not compare students using two modes of communication and Hyland (2002a) focuses on the writing of professional academics.

Use of pronouns as subject Themes in the present study, therefore, denote different subjectivities construed in each corpora. The pronoun Themes in the CMD corpus seem to be used as a resource for building community and solidarity and foregrounding the writer in the message. In the ASSIG corpus, *I* as a Topical Theme is used almost entirely to announce discourse intentions rather than to announce propositions connected to the argument in the assignment. Therefore, the foregrounding of the writer as being personally responsible for a proposition is avoided. There is a subjectivity in the ASSIG corpus, however, found in the use of *we*. This subjectivity is the students' own businesses, not the conference group. This subjectivity was inevitable as the students were requested to write about their own businesses.

In both corpora, almost all subject Themes that were not personal pronouns referred to the field of business management and so, in their argumentation, students were developing this topic and arguing in this field. A consequence of using pronouns as subject Theme is that it limits the opportunity to develop the topic and field. Another

consequence of choosing pronouns as subject Theme is that there are fewer opportunities to construct an abstract texture by choosing long noun phrases and nominals in this position. Given the greater use of nouns, as opposed to pronouns, as subject Theme in the ASSIG corpus, it might be concluded that this corpus had a more abstract texture. This was not the case, however, because the use of nouns and noun phrases selected as subject Theme in both corpora showed that very few of these had the complexity associated with abstraction.

There were several forms of nouns and noun phrases used in Theme position and the difference between the forms indicate different levels of abstraction and a difference in how much agency is accorded to disciplinary concepts. Classificatory nominals that named the concepts and processes that formed part of the lexis of the subject area and, hence, had a taxonomical function formed the biggest category in both corpora (see Example 91)

Example 91: Classificatory nominals as Theme
The Order Management Cycle \ has been set up to fit in with running of the office
(John.tma1.cl.33)

Another category were simple nominalisations of processes:

Example 92: Nominalised Topical Theme: simple nominalisation of processes
The contribution of ideas, \ too, has not only increased morale, but increased performance in marketing. (Sean.tma1.cl.112)

Both of the above allow students to build up a taxonomy of the subject as a way of accumulating meaning (Martin, 1993:230). Example 91 and Example 92 contribute to the elision of agency associated with administrative and business writing (Fairclough & Hardy, 1997; Iedema, 1999), but do not necessarily contribute to a highly abstract text. A more abstract form of nominalisation is found in Example 93. This is closer to grammatical metaphor because it realises a more abstract register in which no human agent is recoverable from the sentence

Example 93: More complex nominalised Topical Theme - semiotic abstractions
Changes in corporate strategy in both organisations \ have resulted in changes in the way critical issues are reported to Senior Management. (Elenna.tma1cl.68)

Inexperienced writers attempted to nominalise in order to construct a more objective register they knew to be valued in an academic context. They sometimes did not achieve this, as in Example 94.

Example 94: An attempt at nominalisation
The control of allowing individuals to set their own targets introduced \ is evidence of a move to a more post-modern control system, placing emphasis on self-control and development. (Dan.3/3.12.33.cl.8)

This example is from the CMD corpus and indicates that students also attempted aspects of an academic register in this corpus.

Students selected classificatory nominals as subject Theme in both corpora far more frequently than nominalisation of processes. Semiotic abstractions and grammatical metaphors were used rarely in either the CMD corpus or the ASSIG corpus. This was surprising and may suggest that the level of abstraction and the attempts at generalisation were limited in both corpora, or achieved in different ways.

The use of imperatives as Topical Theme in the assignments was in response to TMA 01 and TMA 03. Both these assignments requested the students to make recommendations arising from their assignment for changes in business practices. Students were encouraged by the tutors to place their recommendations as a list at the beginning of their assignments. This practice contributed to the less negotiable tenor of these texts.

In sum, students have used Topical Theme to evaluate differently in each corpus, creating a much more subjective argumentation in CMD by use of many more pronouns as Topical Theme. This choice of Topical Theme in CMD leaves less potential for developing taxonomies of the field of study and less potential for constructing an abstract texture. In the CMD corpus, agency is clearly marked by the use of pronouns, and this denotes a value by giving status to the students as sources of their propositions. In ASSIG, there seems to be a greater focus on selecting the topics of the discipline as Topical Theme and this results in a more objective tenor and a greater emphasis on the field.

9.2.4 Evaluation and Rheme-only clauses

Evaluative use of Rheme-only clauses was confined to the CMD, while both CMD and ASSIG made use of Rheme-only clauses to impart information. The evaluative use of Rheme-only clauses is found in Example 95.

Example 95: Rheme-only as part of an adjacency pair

	Topical Theme	Rheme
cl.11	>*One area that is highlighted*	*is the tendency to ?blame?, resulting in bad news being hidden*
cl.12		Lost learning opportunity perhaps?

(Matt.2/3.14.02.)

In Example 95, the clause 11 is a 'cut and pasted' clause from another students' message. By using the cut and paste facilities of the email technology, the student has mimicked adjacency pairs as a way of evaluating another student's statement in clause 12. Though other uses of Rheme-only in the CMD are not so obviously part of an adjacency pair, they nevertheless play a part in evaluation, with expressions such as *Good point* and *Very true point* frequent responses in the CMD.

Other uses of this resource are interactive, such as *Good discussion so far* and *Sorry for the late response,* which, I believe, play a part in constructing a friendly and cooperative tenor. I have categorised all these types of Rheme-only structures, including the kind in clause 11, as *part of a dialogue* in Table 25 below.

The other use of this resource is not part of a dialogic exchange, but seems to be a way of imparting information in a categorical and non-negotiable way. The use of these Rhemes follows a pattern of presentation shown in Example 96, in which clause 46 has an inferred relationship with clause 45.

Example 96: Rheme-only imparting information

cl.45	Efficiency
cl.46	Fulfilling client's requests as fast as quality assurance allows*

(Jonas.tma1)

As Table 25 shows, it was the only use of Rheme-only structures in the assignments.

Table 25: Deployment of Rheme-only clauses per 100 t-units

	CMD	ASSIG
Rheme-only (as part of a dialogue)	2.62	0.00
Rheme -only (not part of a dialogue)	2.12	2.05

This discussion suggests that the choice not to use Theme in the CMD can construct a dialogic conversational frame to the interaction. However, not only does this produce informality, but this choice also is used to evaluate of other students' comments.

When students choose to use Rheme-only to communicate new information, persuasion is less overt, because they are not taking advantage of the mood structure of the clause. This choice is made in both corpora. In the CMD, it is in addition to the interactional and evaluative choice, while in the ASSIG corpus, it is another choice that contributes to the focus on imparting information rather than persuading.

This section has argued that not to employ Theme is a motivated choice. It has also argued that Rheme-only clauses in the CMD are used to evaluate other students' comments. In this respect, the argumentation in the CMD is very different from that found in conventional academic writing and, in this sense, it is a non-congruent way of arguing in academic discourse. This choice is absent from the ASSIG corpus, where Rheme-only clauses are used as a way of imparting information.

9.2.5 Interactional Thematisation

Thematised interactional resources selected by the students are thematised pronoun *you* in projecting clauses and in Topical Theme, vocatives in interpersonal Themes, polar interrogatives in interpersonal Themes, wh-questions in experiential and Topical Themes and imperatives in Topical Themes. The numerical results show that most of these Theme choices were much more evident in CMD than in ASSIG and may be a reflection of the dialogic context.

Table 26: Interactional thematisation per 100 t-units

	CMD	ASSIG
you as Topical Theme	3.69	0.43
imperative as Topical Theme	1.10	3.73
finite interrogative as interpersonal Theme	6.94	0.42
thematised wh-questions	3.00	0.43
vocative as interpersonal Theme	5.86	0.00
Rheme-only clauses	2.62	0.00

In addition to these resources, some modal adjuncts and some projecting clauses also construe an interactional text, and will be discussed below.

Section 9.2.1.2 has already discussed the use of *you* as directly addressing other students and therefore projecting a role as reader-in-the text. This resource was thematised as an interpersonal Theme in projection and as a Topical Theme. These choices construct a particularly involved interpersonal positioning, in which a writer constructs a role for the reader in order to realise a specific form of tenor and to persuade. Hewings observes that direct address is a way of writing a more reader-oriented text which 'leads to a more complex set of projected roles' (Hewings, M. 1999:154). Thompson's view (2001) that direct address is a resource for realising an interactional text and can be used as a way of persuading by creating a role for the reader-in–the-text has already been considered. In the present study, it seems that the students' choices to use direct address as Theme were a consequence of the dialogic context in the conferences. They used this contextual opportunity to construct interaction and enhance their evaluation.

Vocatives have a similar function because they also project a role and they are entirely a feature of the CMD corpus. As depicted in Chapter 8.4.4, vocatives are part of the semantics of involvement, signalling who is focusing on whom in an interaction (Eggins & Slade, 1997). In Chapter 4, the practice of naming in computer-mediated conferences was regarded by several authorities as a product of the technological context of CMD (e.g. Mulholland, 1999; Wilkins, 1991). Furthermore, Wilkins argues that this practice added to the cooperative tenor of the conferences site she researched. In the students' conferences in the present study, the groups are small, comprising four or five students, but during their on-line conferences, all messages are sent to the whole group. Therefore, in order to respond to a specific point in another student's message, the

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student has to name that student because he cannot send a message directly to him or her. Thus, a feature of this register is that vocatives are used frequently as Theme in the CMD and may well contribute to the cooperative tenor.

Imperatives as Topical Theme produce a different speech function, that of goods and services, and this constructs very different interpersonal positioning (Halliday, 1994:68). Though students signal the presence of both writer and reader by using this structure (Hyland, 2002b), imperatives as Theme construct an impersonal tenor. When students select this Theme, the students are limiting the possibility of interaction to compliance or refusal to comply. The discussion in Chapter 8.7.2 identified the following functions of the imperative: to achieve brevity (Swales et al., 1998), as a discourse directive for emphasis and as a directive to do something (Hyland, 2002b).

As Table 26 (above) shows, the deployment of imperatives is markedly different between the two corpora. In CMD, the use of imperatives functions almost exclusively as a discourse directive and mitigates the possibility of a writer-reader relationship of unequal power by fronting the Topical imperative Theme with hypothetical experiential Themes or interpersonal Themes. More than half of the imperatives in the CMD are preceded by an interpersonal or experiential Theme and *11* of these are the interpersonal adjunct *please*. Thus, they maintain the cooperative tenor of the dialogic medium (see Example 97).

Example 97: Imperative as Theme in CMD
Please **find** \ attached my thoughts / summary of the different organisational control systems we seem to have in place. (Adrian.8/3.00.12.cl.1)

In ASSIG, imperatives as Theme function as a directive to do something. In their assignments, the students do not seek to mitigate any possible face-threatening potential of this Theme choice by fronting with an interpersonal Theme or hypothetical circumstantial Theme. Imperatives as Theme largely occur towards the ends of the assignments in the form of recommendations, and, in the assignments, the students use recommendations as a culmination of the arguments they have made for good business practice (see Example 98).

Example 98: Imperative as Theme in ASSIG
<u>Communicate</u> \ corporate strategy to all levels of an organisation. (Elenna.tma1.cl.82)

When students use imperatives in this way, they are complying with institutional directives from their tutors about how to write business argumentation. In some assignments, the question explicitly asks for recommendations. Even if this is not made explicit, the tutors advise students to make recommendations as a way of shaping their writing to fit what the tutors regard as business practice. Of resources that instantiate interaction, imperatives are the one most frequently used in the ASSIG, yet the interaction instantiated is one that is not open to negotiation.

Questions were used as Theme, both as finite interrogatives and wh-questions. They were used to solicit goods and services as well as information in CMD, therefore exploiting the dialogic context. Questionnaires were devised by two cluster groups in their early discussions and this accounts for the high use of questions in the CMD corpus. This did not occur in later discussion sessions. Consequently, although questions attest to the interactivity of the CMD corpus, they do not necessarily attest to the extent of the argumentation that might be occurring. Asking questions may be a way of avoiding actual argumentation. However, the TMA questions that guided the on-line discussion required the students to elicit information about each other's businesses, and this is another reason for the many questions (both polarity and wh) in the CMD corpus. This does not account for the privileging of polar finite interrogative questions in Theme position in the CMD, because wh questions are a way of eliciting information. Finding out information has an experiential focus but the proportion of wh to polar questions in the CMD is: *209* polar interrogatives to *85* wh questions. One reason for the many polar questions may again attest to the aim to collaborate, which seems to be prevalent in the CMD discourse. Cloran argues that 'polarity is thematised when confirmation is sought' (Cloran, 1995:383). This suggests that, by engaging other students in giving confirmation of his or her judgement, the student is making the judgement collaborative. Students can also risk much more in asking polarity questions because they may be putting their own judgement at stake (see Example 99). This influences the tenor of the exchange. This is one of the ways in which questions create a role for the reader and so add to the interactivity of a text (Thompson & Thetela,

1995:105). Example 99 shows a student using both finite interrogative and wh questions as Theme. In this example, Peter is appraising a list that was posted to the group from another student. He has used a wh question in clause 15 as a challenge to the contents of the list. In clause 17, he is using the finite interrogative question to seek confirmation from the group for a proposition. This extract brings to the fore one of the main uses of questions in the argumentation of the CMD corpus: they appear to be used as a form of hedging, in which opinions are expressed in ways that do not undermine the tenor of solidarity.

Example 99: Use of polar interrogative and *wh*-question as Theme

	Theme	Rheme
cl.14	This	is a fully comprehensive list, to the extent that it sounds like performance measurement at the expense of being a Department Manager?
cl.15	How can all these performance measures	be collated accurately and still allow one time to do the job?
cl.16	This in itself	should count towards a higher percentage rating, I think.
cl.17	Would I	be correct in saying that not many of these KPIs are customer focused at the personal level?

(Peter.26/11.13.58)

In the ASSIG corpora, the role created for the reader by questions in Theme position is very limited, and this provides further evidence that students do not foreground interaction in this corpora.

Three more Theme choices in CMD contribute to both the interaction and the evaluation in the CMD: polar adjuncts, modals of entreaty and some projections. In CMD, polarity *yes* and *no* adjuncts were common, but were absent from the assignments. The polar adjuncts not only reflect and constitute the dialogic nature of the communication, but also add to the evaluation.

Example 100: Polar adjuncts as interpersonal Theme

a) *Yes you* \ have made some good points   (Mike.2/12.18.44.cl.2)

b) *no, in my opinion* it \ doesn't   (Heather.6/3.12.27.cl.9)

The modal of entreaty *'please'* (Halliday, 1994:49), frequently thematised in the CMD corpus, has an obvious interactional function.

Example 101: Modal of entreaty as Theme
Please **feel** \ free to amend it in any way you wish (Mel.5/12.21.20.cl.3)

In constructing a cooperative tenor, students also offered apologies (see Example 102) in the CMD corpus, and I analysed these as interpersonal adjuncts when they preceded a finite clause. Although it could be argued that this is an ellipsed version of 'I am sorry', this analysis does not capture the students' use of this word.

Example 102: Interpersonal Theme: adjunct
Sorry, **I** \ meant to pose a question. (Sean.6/3.22.48.cl.1)

Both *please* and *sorry* inscribe a goods and services speech function in the CMD as they are requests for notional goods from the listener. This strengthens the argument for regarding the interpersonal positioning in the CMD as involved and indicative of the dialogic context of the on-line discussion.

The other Theme choice that constructs an interactional text and evaluation was discussed as a projecting clause in section 9.2.1, where the point was made that the thematised projecting preface does not evaluate the projection. These clauses communicate a state of mind and therefore may function to enhance the interaction. Use of *hope* in preface clauses was common in the CMD.

Example 103: projection as reflection
a) *[I am] Glad that* **you** \ think it was well thought out at VYG. (John.4/6.15.54.cl2)

b) *I hope* **this** \ helps. (NeilV.6/3.18.47.cl.14)

Several of the Theme choices here do not have an obvious evaluative function, but contribute to a tenor in CMD, which results in the aligned cooperative form of argumentation already hypothesised.

Rheme-only clauses also construe an interactional text. The close contextual boundedness (Uhlířová, 1994) of email messages and the copying facilities of the technology make it possible to mimic the adjacency pairs found in conversation. The evaluative possibilities of these structures were noted in section 9.2.4. They also function to emphasise the dialogic nature of the context and mode.

The Theme choices in this section support the claim that the argumentation in the CMD corpus is non-congruent in the sense that it does not follow academic norms for evaluation and persuasion, but draws on a variety of resources rarely found in conventional academic writing. The evaluation and persuasion employs many informal structures found in conversation. In addition, several of the Theme choices that construe interaction foreground the feelings and aspirations of the writer, while others realise the exchange functions of demanding goods and services. This is further evidence of very different interpersonal positioning between CMD and ASSIG.

9.2.6 Logico-semantic relations

These were constructed by textual Themes and experiential Themes. Differences in the kinds of conjunctive relations constructed in the corpora and differences in the choice of experiential or textual Themes may indicate differences in register.

In the overall distribution of textual Themes, there is more similarity than in the distribution of other categories with *22.68* textual Themes per 100 t-units deployed in the CMD and *21.57* in the ASSIG. The implications are that the argumentation, as far as it is constructed by textual Themes, is similar. This similarity is reflected in the deployment of both external conjunctive relations and internal conjunctive relations, as Table 27 shows.

Table 27: Internal and external conjunctive relations per 100 t-units

	CMD	ASSIG
Internal	3.85	3.63
External	18.83	17.94

Comparison of the use of textual Themes in studies that treat the grammatical subject as obligatory and a Context Frame as optional are limited. Forey (2002:122) reports that textual Themes were found in almost *20.9%* of the t-units in a corpus of business study reports, letters and memos. North calculates that students with an 'Arts' background use approximately *30* textual Themes per 100 T-units when writing in a history

discipline. Students with a science background writing on the same course used textual Themes in the proportion *24* per 100 T-unit. Other evidence about the use of conjunction by students writers is provided by Hewings (1999). She found that undergraduate students of both physical and human geography increased their use of textual Themes as they became inducted into disciplinary norms. The average use increased from almost *16%* to approximately *27%* of t-units. Whittaker (1995) reports that professional writers of Economics and Linguistics used textual Themes in approximately *15%* of their sentences, except in two notably argumentative texts, which had scores of *25%* for textual Theme. Crompton (2002) found native English speaker students used textual Themes in approximately *12%* of sentences and professional writers used textual Themes in approximately *13%* of sentences. Gruber (2000) reports that textual Themes accounted for almost *30%* of Themes in the academic LINGUIST email conferences. In sum, the use of textual Themes seems to be so specific to contextual factors such genre, mode, student background and enculturation in the discipline, that these studies do not present a guide to assessing whether the results from the present study indicate that these students are arguing in either mode. It might have been expected that CMD, associated as it is with spoken language, would use significantly more conjunction. I believe that the practice in some cluster conferences of presenting information in lists, plus the use of questionnaires, has influenced the use of textual Themes. These kinds of messages consisted of separate t-units and were not conjoined.

Textual Themes used by the students were conjunctions, conjunctive adjuncts, prepositional phrases and, in CMD, continuatives. Students use these structures to select textual Themes that promote two kinds of relationships more than any other in external conjunction: additive and cause.

Table 28: Textual Themes: external conjunction: addition, cause per 100 t-units

		CMD	ASSIG
Addition	additive	8.40	9.70
	alternative	1.26	0.27
Cause	expectancy	2.06	1.56
	concession	4.52	4.65

An analysis of the use of these relations suggests that the corpora are not highly differentiated into academic register and conversational register and this has implications for the way in which students construct argumentation in each corpus.

Martin (1992a) argues that conjunctive relations are particularly responsive to mode, with conversational English using conjunction (e.g. *but*) and conjunctive adjuncts (e.g. *however*) between clauses, while written forms construct semantic relations within processes (see discussions in Chapter 3.7 and Chapter 8.3). Biber (Biber et al., 2002:228) also argues that conjunction is responsive to mode, claiming that *and* and *but* as conjunctions between clauses are most common in conversation, whereas *or* is most common in academic writing. If CMD in general is said to have features of spoken conversation, and the ASSIG corpus features of academic writing, neither corpus in this study is following register norms found in Biber for the use of *and* or for the use of *or*. However, in the use of *but* to construe concessive or comparative: different relations, the corpora follow these register norms (see Table 29).

Table 29: *and, or but* per 100 t-units

	CMD	ASSIG
and	8.26	9.96
or	1.19	0.18
but	4.20	2.10

The much greater use of *but* in the CMD may point to the argumentative nature of the exchanges in CMD 'because people tend to highlight contrast and contradiction in dialog' (Biber et al., 2002:228).

Though the students selected alternative additive relations infrequently, almost all occur in CMD. In this corpus, *24* of the *36* instances of the conjunction *or* link a polar question to a statement (see Example 104). In this way, in their conferences (and in two examples in ASSIG), propositions are presented as a series of alternatives to be communicated to others for consideration, opening up the text in a dialogic way.

Example 104: Alternative conjunctive relations as a question

cl.10	*I was also considering* **what** \is the catalyst for making the move from classical to post modern?
cl.11	*Was* **there** \one single event that caused the management to re-think
cl.12	OR *did* **the need** \evolve over time.
cl.13	From the replies and my own experiences *I would suggest* **change** \is a result of evolution rather than revolution.

(Steve.7/3.09.03)

The main difference in use of conjunctions as textual Themes is in the choice of lexis. For instance, the construction of concessive relations was almost the same in each corpus, and for both corpora it was their largest category after additive relations. From this, it might be deduced that students are acknowledging the possibility of counter-arguments in each corpus and in this way, realising 'the other voice' and a dialogic text. (Martin & Rose, 2003; Thompson, 2001).

In CMD, concession is realised by *but* in *96* out of *125* realisations of concession as Theme. In the ASSIG, concession is realised by *85* conjunctive adjuncts and *83* conjunctions, *but* and *yet*. Typical usage, therefore, reflects some lexical difference between the two corpora and signals a more colloquial and speech-like register in CMD in this respect (see Example 105).

Example 105: Cause: concession in CMD and ASSIG
a) CMD

cl.12 *On the face of it* **you** \ would think that John's credit union would be

the easiest to measure as they deal with a homogeneous product,

money,

cl.13 BUT IN FACT because of the ethical dimension **it** \ is probably one of the

hardest (Martin.26/11.15.51)

b) ASSIG

cl.10 __C.L.__ \ has contracts with local government to deliver services to users who do not pay for the service.

cl.11 HOWEVER here too, **there** is \ an exchange relationship as users receive information and assistance from CL. (Tart.tma1)

There is also a difference in lexical choice in internal additive relations. In both corpora these are realised by conjunctive adjuncts, but, in the CMD, students also choose what are generally considered as continuatives, which, in Example 106, are *well* and *Okay*.

Example 106: Internal Additive relations: continuatives in CMD.

a) WELL AT LEAST **you** \ can feel as though your time is not wasted! (Martin.2/12.17.46.cl.2)

b) OKAY - **we** \ are not responsible for making sure that the projects are kept within budget, time & quality (Paula.27/05.16.57.cl.1)

These choices may well construct interactivity and informality, and create cohesion between the messages. Internal Additive conjunction in the ASSIG are realised almost exclusively by conjunctive adjuncts associated with a formal register:

Example 107; Internal Additive relations: conjunctive adjuncts in ASSIG.
FURTHERMORE **they** \ judge their performance as a company by how well those performance indicators are doing. (Martin.tm1.cl.124)

The results of the analysis of textual Themes, therefore indicates that the conjunctive relations constructed are similar in both corpora but there are register differences in choice of lexis. The more delicate analysis of specific students' writing in Chapter 10.1.9 indicates that choice of internal conjunction may be associated with higher marks in the assignments.

A major difference in the construal of semantic relations lies in the choice between constructing these relations as textual Themes or as circumstance Themes[17]. Students chose to realise the semantic relation of Reason, important in argumentation, as an

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[17] Numerical results of the analysis of all experiential Themes are in Appendix 3

experiential:circumstance Theme rather than as a textual Theme in their assignments, whereas in their CMD, this relationship was realised more through cause:expectancy relationships. The students' selection of circumstances of reason was *2.79* per 100 t-units in the assignments compared with *1.33* per 100 t-units in the CMD. A typical realisation of this relationship as circumstance is as follows.

Example 108: Circumstance Theme: reason in ASSIG

As both organisations are within the finance sector, **financial results and performance** \
underpin the respective corporate strategies. (Dan.tma5b.cl.15)

The students used more circumstances of purpose in the ASSIG: *1.29* per 100 t-units compared to *0.23* in the CMD. In CMD, the semantic relation of purpose was not realised as a textual Theme at all. This suggests that, in the CMD, students did not see the need to foreground their purposes in Theme. Example 109 is from an assignment text.

Example 109: Circumstance Theme: purpose in the ASSIG

In order to measure the effectiveness and efficiency of any organisation, **a level of**

information \ is required. (Sean.tma1.cl.16)

It seems as if in the ASSIG corpus, students are using experiential themes that realise semantic relations to explain and justifying activities carried out in their businesses, whereas in the CMD corpus, the students seem more likely to use textual themes to realise these relations. The example shows a student constructing consequential and concessive relationships in a CMD message.

Example 110: Semantic relationships in CMD

cl. 11 THEREFORE, *I could say that* we \ are broadening our market in that respect,.

cl. 12 BUT THAT we \ still rely heavily on our main customers. (Sean.5/12.12.24.)

The greater use of experiential Themes, particularly circumstance Themes, in the ASSIG may have implications for the argumentation in that corpus. Eggins observes that marked Themes (which are denoted as circumstance Themes in this study)

> ...allow[s] nominalisation to become Thematic ....This allows
> the cumulative "compacting" of the text, as nominalised versions
> of prior information can become the point of departure for the
> writer's next piece of new information (Eggins, 1994:302)

In Example 108 and Example 109, information is packaged in the circumstance Themes.

[business] *organisations within the financial sector*

and

the effectiveness and efficiency of any organisation.

In the first example, the student is making use of a classificatory nominal '[business] *organisations'* within the circumstance Theme, while in the second example, qualities of the organisation are nominalised. In both instances, this compacting of information enables a more abstract register to be achieved.

Hence, in the ASSIG corpus, the choice to realise semantic relations of Reason and Purpose through circumstance Themes, rather than conjunctive relations, had consequences for the argumentation. The more frequent choice of circumstance Themes which constructed semantic relations, important to argumentation, provided opportunities to 'package' information into a more abstract form. The fact that these choices were made more frequently in the ASSIG gives further indication that there may be a more abstract form of argumentation in the ASSIG corpus.

9.3 Conclusion

The results discussed in this chapter provide some answers to the question of what features of argumentation are constructed in each mode. The results also suggest ways in which the students engage in argumentation in these two environments. In the CMD corpus, the frequent choice of interpersonal Themes and personal pronouns selected as Topical Themes indicates that the CMD corpus has a much more pronounced interpersonal orientation and coherence than the ASSIG corpus. The method of development of the CMD corpus therefore seems to be one in which information is expanded through interpersonal Themes or Topical Themes realised as personal pronouns. Hence, in the CMD corpus, the ideational meaning is mediated through this interpersonal framework and this may well increase the readers' readiness to comply with the propositions being made.

The results also suggest that Theme choice in the CMD corpus enables the students to construct a tenor of solidarity and, perhaps, a cooperative or aligned form of argumentation. It could be said that the students are interacting interpersonally in order to persuade. Interactional and evaluative resources are both used to construct the features of argumentation. Interpersonal, textual, Topical Themes, Rheme-only clauses and minor clauses all contribute to the construction of this informal or non-congruent evaluation and interaction in this corpus. Findings of studies reviewed in Chapter 4 and 5 suggest that this may be the result of both the educational context of the conference and also of the specific dialogic context of the computer-mediated collaboration. In the present study, the results of the Theme analysis seem to suggest that the students strive to express opinions in such a way as not to give offence.

The method of development in the ASSIG corpus is more ideational in orientation, expanding information through the Topical Themes and construing information within the field. This corpus is closer to a pattern for the expansion of factual texts in which interpersonal meaning is used to 'support the knowledge construction e.g. to 'partition' ideational meanings according to assessment of probability' (Matthiessen, 1995:29). The students engaged more argumentatively than this might imply, however, using CF Themes in the form of circumstance adjuncts and circumstantial hypotactic clauses to both contextualise their propositions and construct semantic relations.

In the ASSIG corpus, the tenor constructed was much less interactive, with less writer intrusion and visibility. The modality was objective and the greater use of Topical Themes, and particularly the greater use of nominalised forms, produced a less negotiable form of argumentation, with writer commitment less foregrounded. There is evidence that this form of argumentation complies more with business norms and institutional practices. The latter consideration is examined in the next chapter.

The features of argumentation in the two corpora seem to construct two registers that reflect two different purposes for the argumentation. The purpose in the CMD corpus seems to be an interpersonal one of persuasion, while the purpose in the ASSIG seems to be to focus on the development of ideational meaning with much less overt

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persuasion. Thus, the students seem to be engaging in different forms of argumentation in the two contexts. This claim is mitigated by the many similarities in Theme choice. There was similar deployment of two forms of interpersonal Themes realising evaluation, objective modal metaphors as projecting clauses and projecting clauses attributing other sources. There was also similarity in the use of anticipatory *it* as Topical Theme. This indicates that some foregrounding of modality and of source occurred in the ASSIG as well as the CMD. Likewise, there was similarity in the deployment of textual Themes. This suggests that the students may be developing aspects of their reasoning and building arguments in their computer-mediated communication in a writerly way, or at least in a way that has similarities to the argumentation in which they engage in their assignments.

A final point suggested by the results of the Theme analysis is the implication for learning. The possibility for developing argumentation in the CMD was noted above. Another aspect of the Theme choices in the CMD has import for computer supported collaborative learning. The use of aligned forms of argumentation realised through projecting clauses provides an opportunity for students to build on the argumentation of other students. This may provide a scaffold for the development of their understanding of the subject matter not as facts, but as a set of possibilities which have to be argued for. This in turn may provide an opportunity for students to develop an understanding of the grounds on which the Business Management course bases its epistemology.

The next chapter examines how far the students were aware of the influence of the dialogic context on their argumentation and how far they believed that the CMD influenced their argumentation in their assignments. Another question raised by the Theme analysis is the extent of other influences, such as tutor direction, course directives about writing the assignments and possible influences of business culture on their communications. These will also be examined in Chapter 10.

10 Personal and institutional influences on the argumentation

The results of the Theme analysis suggest that the dialogic mode and educational context of the computer-mediated conferences (henceforth referred to as the conferences) may have influenced the argumentation so that a highly involved and tentative stance was taken. I also hypothesised that the less overtly dialogic and involved form of the argumentation in the assignments may have been influenced by institutional and disciplinary requirements. This chapter addresses the question of how far these differences may have been shaped by the influences of the institution and by the students' own understanding of the requirements for argumentation.

Two questions that arose from the pilot study are also addressed in this chapter. The extent to which conceptions about argumentation held by individual students influences the way they engage in the conferences is investigated. In addition, the extent to which individual conceptions of argumentation influence the connections the students see between the argumentation in the conferences and in the assignments is also examined. To investigate these issues, interviews with students, document research and Theme analysis of individual students' writing is used.

There is support for combining textual analysis with document analysis and analysis of students' perceptions. Candlin (1998) and Myers (1999) advocate the inclusion of participant accounts. Candlin (1998) found that a combination of document analysis, interviews with participants and linguistic analysis of student essays made possible 'the integration of textual, processual and practice-focussed' findings about academic writing (ibid:10). In Candlin's research, textual features were analysed, students and tutors were interviewed and the course rubric about writing expectations was analysed. This provided an account of the generic expectations about writing in specific disciplines, and an account of the practices that surround the teaching and writing of these texts. Prior (1995) also advocates a widening of evidence in an investigation of academic writing tasks to include 'biographic, interpersonal, institutional and sociocultural contexts' (1995:49). The present study combines the quantitative method used in the

Theme analysis with qualitative methods in the form of interviews and document research. In this way, the evidence in the study is triangulated (see Foster, 1996:91).

The specific form of interviewing used in the present study is variously referred to as less-structured (Cohen & Manion, 1989:307; Wilson, 1996:11) and semi-standardised (Fielding, 1993:135). This form of interviewing is defined by Cohen and Manion as interviews in which

> ...the interviewer is free to modify the sequence of questions, change the wording, explain them or add to them. (Cohen & Manion, 1989:307).

This is in contrast to structured interviews in which controls over many variables in the administration of the interviews are maintained. In the latter, questions are worded consistently for each interview and response categories are prescribed (Wilson, 1996:96). Hammersley and Atkinson (1995) argue that the distinction between these two types of interviews lies not in the fact that one is more structured, but that the questions in structured interviews are standardised and the questions in less-structured are reflexive. This means that, in the latter case, the questions are used as triggers to stimulate respondents to expand answers and talk in a broad way about the topic. As the intention of the interviews conducted in this present study was to elicit students' perceptions as well as some factual details, the less-structured method was considered more appropriate.

Document research entails an examination of the Management Diploma course documents and tutor advice. This was carried out to assess how the writing requirements for the course are described and conveyed to the students. This research will be reported first, and then the student interviews will be discussed.

10.1.1 Course and tutor advice about writing assignments

The writing requirements for the course are distributed through several documents. These are:

- *Marking Guidelines* specify the expectations for each assignment and are produced for tutors teaching the course;

- *The Manager's Helpfile* (Cooper, 2001) produced by The Open University Business School to supplement the course material and sent to every student;

- *TMA Assignment Questions* booklet in which the six TMA Questions and associated guidance are published.

Marking criteria found in the *Marking Guidelines* make frequent reference to argument and aspects of argumentation. In Figure 7, I have abstracted criteria found in the guidelines for marking TMA01, TMA03 and TMA05 and I have presented this information in two columns, criteria that indicate a high grade and criteria that indicate a low grade. It can be seen that in order to achieve a high grade, tutors expect students to argue, and that lack of argumentation leads to low grades.

Figure 7: Marking criteria from the guidelines for grading TMA01, TMA03 and TMA05

Criteria for higher scoring assignment	Criteria that indicate a fail or bare pass
Presents well argued and sensible conclusions and recommendations for improving both organisations understanding of performance	Draw appropriately on course ideas and present some evidence and argument
Recommendations and conclusions are clearly argued, draw on course ideas and are based on evidence already presented in the assignment	Recommendations and conclusions 'appear out of thin air'
A serious attempt to look for underlying reasons for practices in business and course concepts	Reliance on simple assertion without presenting supporting arguments and evidence
Presents different perspectives	Take a narrow or single view of course concepts or business practices.
Presents coherent arguments	Little critical reflection
Apply course frameworks to all analysis	Little application of course concepts and mostly descriptive

The criteria are only available to tutors, and students do not see these detailed expectations about argumentation. Added to this, there seems to be little explicit

account of expectations for argumentation available to students in the course publications. In the *TMA Assignment Questions* the need to argue is implied but never made explicit. In TMA01, TMA03 and TMA05 (see Appendix 1) the rhetorical activities are listed as: *compare, contrast, evaluate,* and *critically appraise.* The words 'argument' or 'argumentation' are not used in any of these titles and they do not occur in any rubric attached to any of the TMA Questions. In the Introduction to the course which appears in the Study Guide to Block 1 (Fenton-O'Creevy & Margolis, 2001), the stated learning objectives do not use the term argument or argumentation as a goal. The closest these come to implying argumentation are in the following aims:

> The course aims to further develop your analytical [and] reflective
>
> ...skills...We constantly encourage you to adopt multiple
>
> perspectives on complex problems...(Fenton-O'Creevy &
>
> Margolis, 2001:10)

Analysis, reflection and embracing multiple perspectives may be seen as aspects of argumentation but, as in the assignment questions, this can only be inferred. It seems, therefore, that the argumentation requirements for the assignments are made explicit to the tutors, but the students are left to interpret rhetorically the words *compare, contrast, evaluate, critically appraise,* as well as *analytical and reflective skills* and *multiple perspectives* and infer that these entail argumentation.

In contrast to the rubric associated with the particular course which is the subject of this study, there is explicit reference to the requirements for argument in *The Open University Business School: The Manager's Helpfile* (Cooper, 2001). This is sent to all students studying on all courses in the Open University Business School, but is not required reading. In the section on writing (SW1-13) the requirement for argumentation is addressed in two ways. The students are given a generic model of an argument presented as a diagram and based on a series of logical inferential connections between data and conclusion (Cooper, 2001:SW7). A business report format is also presented as a way of writing an argument (Cooper, 2001:SW5) in which argumentation is described in terms of relationships between parts of the report and reproduced below:

- Title
- Executive Summary.

- Contents List.
- Brief introduction which states the purpose of the report.
- The main text with topics covered in separate paragraphs, with appropriate headings and sub-headings.
- The conclusions that follow strictly and only from the preceding argument.
- The recommendations that arise strictly and only from the preceding argument.
- Appendices.
- A numbering system throughout the report for ease of reference.

The need to argue is made explicit only in the Conclusion and Recommendation sections of this report format, though the instruction about writing the report advises:

> Ensure that there is a correspondence between your recommendations and the argument in the main section and the conclusion to your report. (Cooper, 2001:SW6)

How to construct argumentation in the 'main section' or 'main text' is not made clear, particularly as guidance in writing this part of the report is concerned with compiling topics with topic headings.

Though the *Helpfile* is an illustration of the difficulty of teaching students how to engage in argumentation in writing, it seems to be the only part of the prepared and printed course material where the expectation for argumentation is addressed, and reading the *Helpfile* is voluntary.

Apart from this voluntary reading, the course material that the students have to read in order to participate in the course does not explicitly tell the students that argumentation is central to their writing, though analysis of the marking criteria shows that it is central to the assessment of their writing. Consequently, it cannot be assumed that the course rubric influences the forms of argumentation in which students engage in their assignments.

The most explicit advice about argumentation in the assignments comes from the tutors. This is offered in three ways: as a message to the whole tutor group via the Tutor

Conference; as summative comments at the end of each student's assignment and as formative comments throughout their assignment.

The messages to the group as a whole from the tutor via the Tutor conference, is varied. The tutor, Jan, to some extent repeats the advice in the *Helpfile*.

> A business report style is the best approach (as opposed to essay style). Section headings, logical order and numbered paragraphs are all acceptable – and can help your referencing also.
>
> TutorGroupConferenceJan18/12-19.18.

Advice given by Bob to his group about writing TMA01 focuses more on interpretive aspects of the assignment. He suggests they should attend to the following topics as separate sections, suitably labelled.

- Similarities and differences
- Underlying assumptions
- Perspectives
- Stakeholders
- Conclusion
- Recommendations

(Bob12/2-14.11)

He also writes

> It is important to ensure that course theories and concepts are employed throughout these parts. TMA marks are awarded for demonstrating an understanding of and an ability to apply them. If the concept has a diagram then use it but don't just copy it because this does not earn any marks, instead apply it to the cases being analysed via suitable annotation of the diagram.
>
> BobTutorConference

This generalised advice provides evidence of what the tutors prioritised. This advice and other, similar, advice indicates that the task facing the students is to assess course concepts by their effectiveness in a business environment.

The advice in the individual assignments is very detailed and overall presents a clear picture of institutional requirements that Jones et al. (1999) argue represents an epistemology with which students need to comply (see Chapter 3.9). Individual students, however, read only the particular comments on their own assignments as exemplified by the following extract from Jan's advice to a student.

> I suggest you highlight 2 or 3 key concepts or frameworks you
> will use at the start of your assignment and then describe the key
> points of these - before going on to evaluate against your
> organisation and then take points forward to demonstrate good
> practice to conclusions and recommendations. (Jan/Jonastma1)

Frequent advice is to analyse the processes in their own business and apply the course concepts to this analysis, then bring the conclusions of this analysis through to recommendations.

> ...yet I think there is still a need to evaluate the differences and
> get behind what is driving the control now there and take this
> forward to stronger conclusions and recommendations. Bottom-
> line is key to both, yet somewhere is there not the impact of
> customer feedback, competition? Although you do mention these
> points as influences on control systems, surely they must be key
> and be influencing and changing the academic and classical
> model? So possibly more detail in one or 2 areas. You could then
> take forward to Recommendations to highlight some first steps.
> (Jan/Adriantma3)

Again, the course concepts have to be applied to the student's own business and assessed.

> You lost many opportunities to take the concepts further to get
> behind the reasons for the controls which are in place, that is to
> use the course concepts in more depth, particularly the most recent
> ones from Book 1 and Book 4. Also, Book 12 and 13 from Block
> 1 - the "people" texts, do provide insights into the aspects you
> focus on. A summary of the contrast and how the different

perspectives on management control come together would be
helpful in a conclusion and lead into some recommendations
(Jan/Paulatma1)

The tutor comments to individual students, read as a whole, suggest that the
epistemology in this course is based on claims about management procedures. These are
models of human behaviour, and referred to in the course as frameworks. The
argumentation required is one in which concepts (frameworks) are defined and
explained, then evaluated. The grounds for the evaluation are how well the framework
contributes to good practice. The points the students are required to argue are not so
much about the validity of the frameworks themselves, but the suitability of using
particular frameworks in a specific business environment. Salmon (1998:6), writing
about the goals of the Diploma course, describes the academic task that students are
asked to carry out as 'grounding theoretical assertions upon relevant data' from their
own and other students' businesses.

An analysis of the tutors' comments on individual assignments builds up a picture of the
overall problems the students experienced with the argumentation. The most frequent
advice is to refer to and incorporate more references to the course concepts. Students
tended to describe practices in their own business without applying the business
frameworks provided in the course literature for critiquing these practises. When they
did refer to the course concepts, they only referred to one or two rather than argue for
the possibility of several frameworks being applicable. Other frequent advice is:

- To include more evaluation

- To develop arguments for the conclusion

- To analyse more concepts in greater depth

- To include multiple perspectives

- Advice on what to include in Recommendations

- To include more searching exploration of underlying reasons

- To improve (or even include) all aspects of referencing

- To use diagrams

- To improve global organisation of assignments by introducing the key concepts
  and frameworks as an introduction.

In giving this guidance, the tutors seem to believe that they are teaching academic and professional norms. Jan frequently justifies her comments by appealing to these norms:

> Your writing style is very readable, yet lacks the formal aspects
> we want to see both in a business report and an academic
> assignment. JanSeanTMA5

The tutors, therefore, act as linguistic 'gatekeepers' as they judge what is permissible in the students' writing and define the institutional and disciplinary norms by which the students may argue. Both Candlin (1998) and Prior (1995) note the influence of tutors on the academic writing of students.

From this discussion of documentary evidence, it seems possible that tutors may be one of the influences on the argumentation of the students in the study, and influence it in a way that reflects institutionally defined ways of arguing. As the disciplinary norms are mediated for the student by tutor comments, the tutors also delimit and define the disciplinary norms themselves.

Though the tutors offered guidance about argumentation in the assignments, the students are given very little guidance about arguing in the cluster conferences. Consequently, although the tutors may have influenced the argumentation in the assignments in the ways discussed above, this influence cannot be claimed for the computer-conference. Students are advised that:

> ...the collaborative work will be assessed on the extent to which
> your contributions are relevant, build on the contributions of your
> fellow students and help the learning of the group. (Block 1 p 22 and
> Block 2 p14 Block 3p.19 BZX730 2001).

Compared to the advice offered for marking assignments, the advice given to tutors in the *Marking Guidelines* is limited and it is the same advice for each of the three assignments included in the corpus of this study:

> You should assess the contributions of <u>individual</u> students to the
> requested discussions around insights about different approaches.

As a rule of thumb, we suggest that you award marks in the following way:

0/15 for no contribution, 5/15 for some contribution with little building on other's ideas; 9/15 for contributions which build on others' ideas to take discussions forward (probably most students); up to 15/15 for major contributions which build on others' ideas and move discussion on significantly. *Tutor Marking Guide*

Though the advice for the students is similar to that given to tutors, it is very general for both. If there is any academic or disciplinary influence in the computer-conference argumentation, it is not, therefore, due to any documentary institutional influence. Also, contrary to the argumentation in the assignments, tutors do not act as linguistic gatekeepers in the computer conference argumentation because they do not participate at all.

10.1.2 Students' attitudes and beliefs about argumentation in the course

Another possible influence on the argumentation in the assignments and conferences are the students' own beliefs about argumentation which they bring to the course. Students in this study are professionals in their field and research suggests that this may influence their writing more than if they were conventional students. Hoadley Maidment (1997) sees specific difficulties for adults entering university education. Unlike young people coming through a regular school system and taking qualifying examinations, which to some extent provide an enculturation into academic literacy, adults have already established a variety of roles in society. She writes:

these [roles] are different from those held by school-leavers, whose main identity is that of 'student' or 'learner.' Consequently, adult students may find themselves making complex cultural shifts involving both language use and behaviour. (Hoadley-Maidment, 1997:57)

Further, she reports that there is some evidence that students entering academic study from vocational routes may face special issues in learning to use academic genres (ibid

1997:63). Some support is given to this by Lillis (2001). She reports that adult students, who have a variety of roles in society, as workers and parents as well as students, find the style of meaning making open to student writers in academia perplexing.

> A key theme across talk about their meaning making was the
> tension between what the student-writers felt they wanted to say
> and what they felt they were allowed to say in their academic
> writing. (Lillis, 2001:82)

This point is supported by Lea (1994), who contends that students who may be skilled or competent writers in their own field find the prescriptive nature of academic writing problematic. A similar point was made with specific reference to the different purposes and goals of written argumentation in the workplace and university (see Chapter 3.9 and discussion of Dias (1999) and Baynham (2000). Dias pointed out that a different epistemology exists between academic and workplace argumentation. Baynham suggested that part-time adult students might either object to the differences in the way they have to write in academia or find the transition difficult.

It follows that students in the present study, who may have confidence in their ability to write in their own profession, may find the adjustment to the writing requirements of the course problematic. It also follows that students may in fact bring a high level of competence to the writing of business English. These questions will be addressed in the report of interviews with students.

10.1.3 Interview procedure

Though the questions were not standardised, the interviews were semi-formal, so some procedures were put in place to produce consistency in the administration of the questioning in an attempt to provide a representative sample. The length of the interviews were all about thirty minutes to forty minutes and I ensured that I covered the same topics with each student, though the way in which questions were phrased and the sequence of questions differed.

Students who were interviewed were self-selected. All were first contacted using the tutor group conference site and an invitation was given to all the students in each tutor group to volunteer to be interviewed. Students were told that the topics of the interviews were learning and writing on-line and in the assignments. I gave the students all my contact details and invited them to contact me. The initial response was poor, so I then emailed those students who had previously agreed to let me read their assignments, using their course conference email address, not their private email address, which was not available to me. This proved more effective and 12 of the 21 students agreed. For all the 12 students interviewed, I also had available their on-line communication and their marked assignments.

I used telephone interviews to collect data. This was necessary because four of the students lived permanently outside the U.K., others travelled with their job, and, by the very nature of being part-time students in managerial roles, they were very short of time. Therefore, it proved more consistent to conduct all interviews by telephone. Precedent for this form of interviewing is provided by Lea (2001) in a study in which seven adult students taking an electronically offered distance learning master's level course were interviewed about their perceptions of writing for assessment. Another precedent for telephone interviewing is reported by Sturges and Hanrahan (2004). They report that, where the researchers' interest is relatively narrowly focused and immersion in the environment is not necessary, 'telephone interviews may provide information quite comparable to in-person interviews' (2004:116). Given that the shared environment of the present study is 'virtual' and students' practices, such as reading the course material and assignment writing and emailing, are done in the private domain, immersion in the environment was not possible for the purpose of interviewing. Therefore, telephone interviews were conducted.

The interviews were conducted after the students had written their last assignment, but before they sat the examination. With the students' consent, they were tape-recorded. I developed pre-determined questions (see below) but, as already alluded to above, I used these questions as a guide to ensure that I covered the same topics with each student. For instance, when attempting to find out their job, I may not have used the exact words

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in the interview schedule below. Similarly, when investigating the range of writing involved in their job, this information may have been given without the question being asked directly. I would then ask a follow-up question to clarify the nature of the writing students did at work and in other aspects of their life. I responded to the students' answers to my questions by asking further questions in the hope of gaining greater clarity or further detail. I rephrased questions if this seemed more likely to attain my goals of eliciting comments on the topics represented by the questions in the questionnaire. This method of interviewing may be open to criticism over issues of interviewer reactivity and reflexivity which recognises the possibility of the interviewees being influenced in their responses by the interviewer (Fielding, 1993). Notwithstanding such criticisms, Hammersley (2003:125) argues that they do 'not justify abandoning the standard uses of interview material, even less interviews as a data source.' Rather, 'it does point to some important cautions that need to be observed in collecting and analysing such data'.

The interviews were transcribed verbatim, but a detailed transcript, such as that used in conversational analysis, was not adopted.

The interviews provide factual information about the students' educational backgrounds and occupations and also provide subjective information, such as the students' perceptions about pedagogical aspects of the course and their individual interpretations of the part argumentation played in the CMD and the assignments. The interview schedule below indicates the areas I explored without reproducing the actual way in which I phrased the questions.

Background

What is your job?

What previous courses/qualifications do you have?

Writing history – what kinds of writing do you do in your present job or in previous jobs?

Is there any relation between the writing on the course and writing in your business?

CMD

How much did you use on-line conferencing other than the cluster group conferencing?

What were the best aspects of these conferences – what did you like best about them?

What did you not like about them?

How far do you think your group argued in the cluster group discussions? By arguing, I don't mean having a conflict, I mean discussing and persuading others to your point of view.

How much of the discussion in the cluster group did you transfer to the long conventional assignments?

Were you aware of using any particular kind of language or tone?

Is it easy to discuss in this form?

How did you manage disagreement with the opinions of other members of the group?

The assignments

In writing these, were you aware of using any particular tone or language?

How easy is it to argue in the long assignments? In what way can you make a point or argument?

How did you refer to the course theory?

How did you go about writing these assignments?

What do you really think you have to do to get a good mark?

10.1.4 Discussion of the interviews

All the students interviewed were adult professionals, most at a middle management position. Table 30 gives the biographical details of their age, their educational attainment, and the grades they achieved on the course. Age is shown in decades. Educational background represents the level of previous educational attainment reached by the students. This is shown as three categories *1, 2, 3* in Table 30. Category 1 indicates that the student has attained a first degree or above. Category 2 indicates that the students have achieved the Open University Business School Certificate in Management Studies, plus some form of professional or vocational tertiary education other than a university degree. Category 3 identifies students who have attained the Certificate in Management Studies but have no other formal education above secondary school. An individual student's attainment on the course is shown as the total average score for all six TMA sessions. This score does not include their examination score, which is unavailable. In four of these TMA sessions, students are awarded a small percentage for participation in on-line discussion and this is included in the total score for the whole TMA session. Therefore, the average score is for their individual assignments plus any marks awarded for the on-line contributions. These are grouped into attainment categories to facilitate further discussion.

Table 30: Details of students interviewed

Student	Age	Educ	Job	Av score	Attain cat
Martin	30-40	1	Airline pilot trainer	81	A
Tricia	40-50	1	Director/owner small I.T. company	75	B
Adrian	20-30	1	Human resources MOD	75	B
Colway	30-40	2	Manager - Health Service	75	B
Steve**	30-40	3	Business manager I.T. company	74	C
John	50-60	3	Bus driver and Credit Union	72	C

Student	Age	Educ	Job	Av score	Attain cat
			official		
Cait**	30-40	1	Civil servant MOD	71	C
Elenna	40-50	3	Project manager manufacturing industry	70	C
Robert	30-40	3	Manager - road haulage	66	D
Jonas	20-30	3	I.T. project manager	61	D
Alex	50-60	3	Manager leisure complex	52	E
Sean	30-40	2	Technical manager	51	E

(**Cait gave birth to a baby during the course and considers that this adversely affected her grades. Steve only completed four of the six assignments and so his final average score may be inflated)

10.1.5 Major themes emerging from the interviews

Four main themes emerged from the interviews:

- Students' attitudes to argumentation in the CMD;
- Students' attitudes to argumentation in the assignments;
- The relationship between the argumentation in the CMD and in the assignments;
- Students' ability to articulate goals in their writing and possible relationships this had to their previous writing and academic history.

The conception students had of the role of argumentation in both the on-line discussions and in their assignments is analysed in some detail in the discussion below. The purpose is to arrive at an understanding of how they defined this argumentation. In addition to the qualitative analysis, their individual responses are divided into two categories for each mode so that these can be compared. These are:

On-line discussion	
CMD as arg	Student believes that the engagement largely involved argumentation
CMD am	Student was ambivalent, or giving contradictory responses

ASS as arg	Student believes that the assignments are largely argumentation
ASS am	Student was ambivalent, giving contradictory responses and so they did not give a clear opinion

The results are shown in Table 31. Column 2 gives the educational background of the students and column 3 shows their performance on the course. Column 4 indicates students who believe that the on-line communication was largely argumentation while column 5 indicates students who were ambivalent. Columns 6 and 7 give information about students' attitudes towards the assignments.

Table 31: Views about argumentation in the CMD and the assignments

1	2	3	4	5	6	7
Student	Educ	Attain cat	CMD as arg	amb	ASS as arg	amb
Martin	1	A	X		X	
Tricia	1	B	X		X	
Adrian	1	B	X		X	
Colway	2	B				
Steve**	3	C			X	
John	3	C	X		X	
Cait **	1	C	X		X	
Elenna	3	C	X		X	
Robert	3	D	X		X	
Jonas	3	D		X		X
Alex	3	E	X			
Sean	2	E	X	X		

Seven of the students had a clear conception of the on-line discussions as argumentation, three students were ambivalent in their response and two students did not consider the conferences to be argumentation. Both these latter students said that

they perceived the conferences to be primarily concerned with exchanging information. Nine of the students regarded the assignments as argumentation, one student was ambivalent in his response and two students did not consider the assignments to be argumentation. Both these students considered the assignments to be primarily for the communication of information.

This analysis suggests that students were clearer about the role of argumentation in the assignments than in the on-line discussions. This is not surprising, given the advice provided by tutors. The task set for the computer-mediated conferences did not use the word argument. Passing on information about each other's business was, in fact, a prominent part of the on-line tasks. It is, therefore, not surprising that two students considered the on-line conference as primarily an exchange of information and three of the students were not sure about the status of argumentation on-line.

10.1.6 Attitudes to argumentation in the computer-mediated discussions.

This section analyses the students' conceptions of argumentation in the on-line discussions. Section 10.1.3 described the way in which the interviews were conducted and it can be seen in the extracts below that I used a variety of terms in asking questions about argument and argumentation. In each interview, if I used the term argument, I tried to make clear that I was not referring to quarrelling.

Students who supported a view of the exchanges in the computer-mediated discussions as argumentation described them as ones in which points of view were not presented categorically, but supported by reasons, and opinions did not go uncontested.

Sylvia   Did much discussion in terms of putting points and supporting them happen in the cluster groups? --do you think much of that went on in the cluster groups?

John   Yes, it did actually. Most people put their views and where they agreed with somebody or if they did not agree why they did not agree. It wasn't just a case [of].'it worked very well.' Everybody had their own different ideas and they just didn't turn around and say 'I don't agree' It was   'Well you said that but this is also an option'

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and it gave a different perspective. Or of course some other times they agreed with what you said

The student here almost enacts the argumentation, and the cooperative tone of that argumentation. He represents a disagreement as one in which a student acknowledges another's point of view *'you said that'* and then proceeds to offer another perspective *'but this is also an option'* rather than contradict the first student outright. Students also define this argumentation as one in which multiple viewpoints were supported.

Sylvia   What was most useful about the cluster group conferences?

Martin   You have your own view of how things are, then these guys will come from a totally different perspective and different background and that will change my thinking on those sorts of things.

In addition to acknowledging multiple viewpoints, the conferences involved consideration of counter-arguments.

Martin   You can learn [from the CMD] if they argue a point...There are two points - There are their logical arguments which may be counter to yours , makes you think and then there's also the fact that they come at it from a totally different perspective

Because the cluster groups were unmoderated by the tutor and carried very few marks, they offered opportunities to challenge course concepts.

Adrian   I made less controversial statements in my assignments than in the on-line discussion cos assignments were marked and the discussion was based on amount of contributions so you felt could be controversial.

Those students who did not regard the CMD as primarily argumentation focused on its function as a forum for sharing information. The two students who took this view believed that the computer conference was primarily an opportunity to learn about the business practices of other students. Any argument about possible interpretations was secondary.

Sylvia   Were there any arguments about course theory in the cluster group?

Colway   Not really. People would put up submissions and we said 'well that's very nice' and that would be it. There would be a very very short discussion. The course is very intense and you can't afford to get into too many discussions with other people. You may note what someone says but you can't dally on it

When pressed further he said:

Colway   The cluster group was for giving and getting information And I've used them for contacts outside.

This view was endorsed by Steve, who said that

Steve   They were information exchanges in my cluster group. There was very little argument. Most of it we were answering questions that we had been asked and most of it was quite straight forwards what they were imparting about how their organisation worked.

Other students in the same group as Steve and in the same group as Colway described the interchanges as argumentation. This suggests that there could be considerable differences in attitudes amongst students involved in the same interchange. Perusal of the cluster conferences does show that some students took a much more active part than others. This in itself does not explain these different perceptions, as Colway took an active part in his group discussion, whereas Steve did not. These different attitudes indicate that students held differing perceptions of the discussions and perhaps different understandings of what it is to engage in argumentation. This has implications for course preparation and teaching, as advice to engage in argumentation is not helpful if there are multiple understandings of what this means. Another possibility is that some students cannot engage in argumentation. Another member of Steve's group, Tricia, describes the argumentation as 'running on parallel lines' and some students not engaging in argumentation. She also found that the other members of her group would too quickly assume a similarity between their own business practices and course frameworks. Thus, in her case, she recognised the CMD as potential argumentation, but found it limited. Steve may have focused his own participation on giving and receiving information.

Some students perceived that their groups experienced difficulty in maintaining the argumentation.

Sylvia   How far were you arguing [in the CMD]

Adrian   There were times when I felt the consensus is reached far too easily so I would chuck something in and often it would get ignored and that was very frustrating. If every one is saying x and y then after a while I would say 'what about z?' and there are no replies on that subject so you have to push it again but they have already reached their consensus and you end up in being the one or two that stands out. By then, you can't have that face-to-face discussion because of the time delays --that loses a bit of its potency.

Adrian is not referring to a synchronous conference here. By 'face to face', Adrian means an asynchronous computer conference organised so that all participants arrange to be on-line at more or less the same time. He finds that the time delays in the asynchronous conferences, as organised by the course team, which extend over several weeks, impede his ability to argue. Though this is Adrian's own perception of the conferences, his view supports findings discussed in Chapter 4.4, in which it was found that asynchronous technology interrupts adjacency pairs and the logical progression of the argumentation. Adrian's comments may indicate that this mode limits the discussion. Adrian's comments also touch on the interpersonal aspects of this form of conferencing. His fear of 'standing out' and proposing a different point of view may indicate that he felt pressure to preserve a cooperative tenor. Similar characteristics of cooperation in computer-conferences were reported in section 5.2. In Adrian's case, he felt that the tenor of the discussion was such that he could not challenge too conspicuously.

Several other students commented on the limitations imposed by the asynchronous computer conferences. Colway and Elenna compared adversely the arrangements for conferencing in the Diploma course with conferencing arrangements in their Certificate course. The latter, though asynchronous, were held within a specified time, with all students on-line at the same time (Adrian's 'face to face' discussions) and Elenna found these resulted in much more argumentation. Though these are students' perceptions and

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opinions, they echo empirical findings by Davis and Rouzie (2002) discussed in Chapter 5.2 in which the researchers found that more challenge and intense engagement occurs when the computer conference takes place in present time.

Students identified interpersonal factors as also influencing their experience of argumentation in the present study. Cait believed that lack of familiarity prevented her group from maintaining argumentation at the beginning of the course. She said that her group got better at challenging others, and hence had more searching discussions, as they got to know each other better. Alex and Colway both separately stated that they did not join in exchanges when the other participants named concepts and used technical language associated with the course. Alex admitted to finding it difficult to engage with *'some people who will sprinkle everything with course concepts.'* How these students perceived the tenor of their group, therefore, influenced their participation in the argumentation,

Every student, whatever their attitude to the status of the argumentation, said that they were aware that they had to be careful to phrase their comments in such a way so as not to upset their readers. They phrased this as adopting a 'jokey' informal style or 'being circumspect' in order to preserve the non-judgemental and supportive tone. They all admitted to being very careful when they disagreed with other students. Many observed that this was a consequence of the technology in which body language is not available to assist interpretation. They cited the lack of visual clues as a reason to be very careful about how they phrased their messages. This is supported by the analysis of the CMD corpus in which the marked use of interpersonal themes realising modality, tentativeness and interactivity, was noted.

This section has analysed the attitudes to argumentation categorised in Table 31. The students' comments have shown that argumentation in the on-line conferences is considered to be an engagement with multiple viewpoints and reasoned argument. Although some students found the CMD engagement unsatisfactory, or were ambivalent in their response, only two students repudiated the view entirely. The students' comments also show that interpersonal factors may influence the argumentation, that

students make a conscious effort to maintain a friendly tone and that the argumentation may be constrained by the technology.

10.1.7 Students' attitudes to the relationship between on-line argumentation and the assignments

The response of the students to questions about the relationship between on-line argumentation and the assignments suggested that the way the students conceptualised this relationship was indicative of an orientation to argumentation in the course. Therefore, their responses are analysed in some detail. As shown in Table 32 below, seven students saw a strong relationship between the two modes. Those who did not recognise much connection tended to be students who did not gain high grades on the course, apart from Elenna, who criticised the quality of the on-line discussions and hence observed that there was little to relate, and Colway, who thought that both the on-line discussions and the assignment were primarily information exchange.

Table 32: Relationship between the CMD and the assignments

1	2	3	4	5	6	7	8
Student	Educ	Attain cat	CMD as arg	amb	ASS as arg	amb	Strong relationship CMD and assignment
Martin	1	A	X		X		X
Tricia	1	B	X		X		X
Adrian	1	B	X		X		X
Colway	2	B					
Steve**	3	C			X		X
John	3	C	X		X		X
Cait **	1	C	X		X		X
Elenna	3	C			X		
Robert	3	D	X		X		
Jonas	3	D		X		X	X
Alex	3	E		X			
Sean	2	E		X	X		

The students spoke about the relationship between their activities in the two modes in terms of argumentation, information and writing skills. It must be stressed that the course design requires that the students share information about their businesses in the CMD, so information sharing was a required aspect of the on-line communication. However, most of the students interviewed said that they used the arguments developed in the discussion in their assignments, not just the information. Martin is typical in that he makes it clear that it is arguments that he transfers across to the assignments. He recognises that he uses other students' arguments to provide counter-arguments in his assignments and shows great clarity in his account of this process.

Martin   Often the points I make in the conferences would then become part of the TMA. In a lot of cases they are the cornerstones of my argument.

Sylvia   Did you reword them?

Martin   No in a way they were a trial run. I put my theory forward then I saw the reaction it got, and I remember, in one or two cases [the reaction] was added onto my TMA [assignment] to discuss the point they had brought out to take account of their argument to either weaken their argument or reinforce my case.

Tricia considers the writing in the CMD as a rehearsal for the assignments and, in this way, she considered the CMD to be crucial in the writing of her assignments:

Tricia   It is not a poor relation. It provides considerable advantage because you have to provide thought in writing from the beginning

The writing in the conference also provided some students with a guide to appropriate academic style. John, who had no secondary education above Certificate of Secondary Education until he came to take the Certificate Course, said that he learned how to express ideas in a style he believed appropriate for the assignments.

Sylvia   Did the cluster group help with the assignment writing?

John   Very helpful actually I found them. But the different perspectives and the way people presented things differently gave you different ideas yourself on how you could present something so I found it was very good

Sylvia   So you looked at how other people put things together and ...

John   It gave you different styles. You'd be doing something that you thought looked quite good and then you'd see someone else present the same thing in a different way and think 'Oh yes in a different way that looks far more professional'.

The point was made in Chapter 7 that the on-line discussion tasks were similar to those in the assignments. Earlier in the present chapter, it was argued that the grounds for argumentation in the course were shown to be the applicability of frameworks to the students' businesses. Tricia's description of the overall activity in the cluster groups suggests that the nature of the argument in the cluster groups bore similarity to that required in the assignments.

Tricia   What we were supposed to do was to measure our own experience against these concepts and to see how far they applied and how far they didn't apply.

It seems that, for some students, the development of arguments to support claims in the on-line discussions may have provided a scaffold into the kinds of claims held warrantable in the assignments.   Lea (2001) also found that computer-mediated discussions enabled students in a similar learning context to develop a way of arguing in their assignments that reflected arguments given status in the discipline.   Students' comments also suggest that the argumentation in on-line exchanges provided a scaffold for understanding concepts needed for the assignments:

Tricia   You benefit from other people doing exactly the same thing so that when it comes to writing, you start with quite a lot of material already written down

Martin   They [the assignments] were more better thought out and perhaps more fully supported points...[in the CMD] you have done it more off the top of your head - not as well thought out but of a similar nature

The CMD may therefore have an affect on the cognitive grasp some students have of the assignments which, according to Prosser and Webb (1994) and Campbell et al. (1998), improves the writing of argumentation in student essays.

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10.1.8 Meta-knowledge

A significant difference between the students, revealed by the interviews, is the difference in their meta-knowledge about writing and argumentation. All the students in Education category 1 were able to speak about specific features of their writing in the assignments and distinguish this from their writing in the conferences, while others from Education category 2 and 3 were less clear about the differences, if they recognised differences at all.

The interviews with students who demonstrated greater meta-knowledge also suggest that they are possibly bringing knowledge of academic and business norms to their writing and do not have to rely so much on the tutors for this knowledge. Some of these students showed sophisticated knowledge of generic considerations, detailing how they adopted their writing to different situations. They referred to the writing they did in their professional life and how this writing supported their assignment writing. The extracts below illustrate the sophistication of this knowledge.

Cait   My style of writing is not standard [civil servant] writing. It's a lot less flowery and I think that's my scientific background from when I was writing lab reports. You order your points you work out what you want to say before you say it and you go bang bang bang and you make sure that its ??fits language, whereas my colleagues, you know, use stream of consciousness and long screwdriving and all...

Adrian   At Uni I seemed to put in loads and loads of quotes and cobbled them together and it was not on subjects I could apply to anything really outside of the course...A lot of the stuff I did at uni was not exactly plagiarism as lifted from other peoples'.

Students who did not have this meta-knowledge were not able to articulate in their interviews the difference between their writing in the conference and their writing in the assignments. When questioned specifically about the tone they used in the conferences, students said that they to attain a friendly tone[18]. Yet few made any spontaneous reference to tone in answers to other questions about their writing. Their ability to

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[18] In the interviews, I used the word *tone* and then added other words to specify my meaning without actually using evaluative terms such as *friendly*.

articulate aspects of style was limited. Elenna indicated that she wrote very similarly in both modes, and her aim was to try to take a light tone to bring in a 'bit of humour'. Theme analysis of her writing, discussed in section 10.1.9 below, indicates that there were significant differences between modes. Sean was very confused about how he should write in the assignments, having had feedback from the tutor that he found difficult to accept. Robert was only able to talk about writing in terms of learning to be more specific in what he wanted to say, and did not differentiate between writing in the conferences and the assignments. Alex's response is typical of students who did not have this meta-knowledge:

Alex   I am a natural writer. It may not be terribly educated with big words and fancy phrases but the actual writing it seems to me isn't a problem. My personal brief to myself was to -- I tried to cut out the wheat from the chaff and get to the essential rather than the periphery.

Sylvia   What kind of tone or style did you use in cluster group?

Alex   I use the same style for every thing - -Be concise and informative and if there is the opportunity for a bit of humour all to the good

Sylvia   Do you change style or tone in the assignments?

Alex   No, not really

The students' responses in this section indicate that some students seem to have a much clearer idea of their own thinking and writing processes. They are able to articulate clearly how the relationship between the on-line discussion and the assignments worked for them. They show meta-knowledge about both the computer-mediated discussion and the part this activity plays in their own writing of the assignments. These students may have been able to make better use of the on-line discussions in the writing of the assignments. Table 31 (see section 1.1.55) indicates that students who believed that there was a clear connection between argumentation in both modes tended to be higher scoring students. Conversely, those students who did not see a strong connection obtained lower scores in the assignments. They also tended to be students who showed the least meta-knowledge of their own writing.

The students' responses to questions concerned with the relationship between the assignments and the conferences indicate that some students found that the conferences supported their writing in the assignments. These responses suggest that the computer-mediated argumentation may enable students to develop some sort of conceptual framework and, perhaps, disciplinary sanctioned grounds for arguments that contribute to the writing of their assignments. However, the number of students interviewed was small, and therefore these conclusions are very tentative.

This chapter has discussed the course rubric, the tutors' advice and the individual students' attitudes and knowledge about argumentation in the course as possible influences on the students' argumentation. It has explored the students' attitudes and meta-knowledge about writing and learning, as far as this is possible through interviews. Whether it is possible to discern how these attitudes influence the argumentation of individual students is the topic of the final section of this chapter.

10.1.9 Comparison of Theme choices of students

This section compares the Theme choices of a selected group of students. One criterion for selection is that the students are in different categories in Table 32 above. The students are also selected to be representative of various attitudes represented by these categories and include both male and female. The students are: Martin, Tricia, Elenna, Sean and Alex.

Martin and Tricia considered both the conference engagements and the assignments to be argumentation. They spoke fluently and confidently about the relationship between their computer-mediated argumentation and their assignments. Their responses showed that they were aware of the necessity to adjust styles of writing to different situations. Elenna recognised the potential relationship between the on-line discussions and assignments, but was dismissive of the conference as argumentation. She showed little insight into how she met the writing requirements for the assignments and expressed great puzzlement at the grades she was awarded. She told me that she did not really understand why one assignment gained a very high mark, while others did not. Alex was not able to articulate an awareness of either mode as argumentation, though he did

not dismiss the possibility of argumentation. He did not articulate much connection between the two modes and could not articulate any adjustment in his writing between these two modes. Sean dismissed the potential of the on-line discussion and recognised little connection between this and his assignments. He did, though, have some insights into his writing, and said that his style and the way he organised his assignment did not meet that required by the tutor. Table 33 below shows these students individual Theme choices in both modes as deployment of Themes per 100 t-units.

Table 33: Theme analysis of the five students' writings as Themes per 100 t-units

Student	Themes	CMD	ASSIG
Martin	textual	29.54	25.81
	interpersonal	35.50	3.36
	experiential	23.29	23.57
	C.F.	68.36	45.47
	Topical Theme in first position	31.07	52.84
Tricia	textual	17.45	27
	interpersonal	34.4	6.43
	experiential	12.26	19.57
	C.F.	51.88	47.7
	Topical Theme in first position	31.13	52.50
Elenna	textual	18.48	15.74
	interpersonal	36.13	9.25
	experiential	12.6	20.37
	CF	56.3	37.03
	Topical Theme in first position	37.81	57.87
Sean	textual	27.3	20.69
	interpersonal	25.75	6.25
	experiential	17.33	19.3
	CF	54.6	41.26
	Topical Theme in first position	42.66	55.82
Alex	textual	21.13	26.92
	interpersonal	21.3	8.2
	experiential	26.82	23.86
	CF	53.6	51.68
	Topical Theme in first position	39.83	42.07

At first sight, the CMD corpus does not seem to reveal any pattern in the students' choice of Context Frame Themes. Martin and Tricia both said that they considered both the conferences and the assignments to involve argumentation, yet Tricia uses fewer C.F. Themes than Elenna in the CMD corpus and Elenna rejected the conferences as a

site for argumentation. All three of these students use more C.F. Themes in the CMD corpus than Alex or Sean, both of whom did not articulate a position about conference argumentation. Closer analysis of these choices shows that Martin and Tricia assume a very different interpersonal positioning from all the other students by selecting far more subjective modal metaphors e.g. *I think that* as Theme in their CMD (see Table 34). They, therefore, assume a stance or evaluative perspective in their on-line communication that is missing from the other students' communication. The table also shows that they assume a different interpersonal positioning from the other students in their assignments, where they do not select these Themes at all.

Table 34: Subjective modal metaphor as Theme per 100 t-unit

	CMD	ASSIG
Martin	16.94	0
Tricia	11.32	0
Elenna	4.2	2.91
Sean	5.3	1.00
Alex	6.5	1.55

Thus, not only do Martin and Tricia say that they consider the conference exchanges to be argumentation, but they engaged in the conference by taking a stance. Significantly, Elenna, who deployed slightly more interpersonal Themes in her CMD than the others in this small group, chose Theme to instantiate interaction rather than stance. She used far more questions in the form of finite interrogatives as interpersonal Themes than the other students. Her deployment of finite interrogatives was *16 per 100 t-units*, and this suggests that her engagement in the conferences was one of seeking information. Interestingly, Sean and Alex also foregrounded stance in Theme much less than Martin and Tricia and these two students were ambivalent in their attitudes towards the CMD as argumentation.

Further comparison of Theme choice suggests that some students' perceptions about their writing are not actually reflected in their choice of Themes. Both Elenna and Alex did not think that their writing differed between the conference and the assignments. However, their Theme choices do show differences, and, in Elenna's case, the

differences are quite marked. In her assignments, Elena uses far fewer C.F. Themes and far more Topical Themes in first position than in her CMD. The difference in Alex's case is less marked, and this is significant in itself. He, more than the other students in this small group, made fewer changes in his Theme choice between modes, and this seems to follow his interview statement, in which he said that he made little change between in the way he wrote in the CMD and in his assignments. Table 32 also shows that he has a low attainment in the course, and little academic background. How far his deployment of Themes and his writing and academic background are related needs further investigation. In Sean's case, his choice of Themes is closer to the Theme choices made in the large CMD and ASSIG corpora that include all the students' Theme deployments. In spite of this, his writing (rather than the way he answered the questions in the TMA) was criticised by his tutor and in his interview he expressed concern about this. Given these Theme choices, there may be legitimate reasons for his confusion, which will be discussed later.

Table 33 shows that Martin and Tricia deployed more C.F. Themes in their assignments than the other students in this small group, with the exception of Alex. All three also used more C.F. Themes in their assignments than the norm for the larger ASSIG corpus. Martin and Tricia were very clear about the need to argue in their assignments. Both Martin and Tricia were appraised positively by their tutors for their argumentation, (see Figure 8), and Table 32 shows that they attained high grades. Alex was not appraised positively, and his Theme choices will be discussed separately from Martin's and Tricia's.

Figure 8: Tutors' appraisal of Martin and Tricia

Bob responding to Tricia's TMA03 assignment:

> [You] provide a very good comparison of two nicely contrasting organisations followed by a considered evaluation of your own organisation's control system...

> Throughout, you explicitly applied relevant course theories, concepts and techniques well, and made good use of supporting evidence....

Secondly, good examples from the cases were provided to support the contentions. This made your answer convincing.

Jan responding to Martin's TMA01 and TMA03 assignments:

You do present both sides of an argument

You have used relevant course ideas and looked beyond differences in the 2 control systems to the underlying reasons for these and the impact on behaviours and learning.

Yes, good evidence to underpin your point...

Not only did these students select more C.F. Themes, but also their choice of Theme suggests compliance with features of formal written argumentation in their deployment of conjunctive relations as textual Themes. They select a higher proportion of textual Themes than the norm for the larger ASSIG corpus and more than the other four students in this small corpus, with the exception of Alex (see Table 35). Use of textual Themes has been noted in this thesis as an indicator of academic written argumentation within the field of writing in higher education. More significant, however, is their selection of internal conjunction as Theme. This is considered a feature of formal written argumentation associated with academic writing (Martin, 1992a).

Table 35: Deployment of textual Theme per 100 t-units

Themes	Total textual theme	external	internal
Martin	25.81	20.76	5.05
Tricia	27	19.42	7.77
Elenna	15.74	12.83	2.91
Sean	20.69	17.45	3.24
Alex	26.92	25.64	1.28

Alex, who employs textual Themes heavily in his assignments, is using the resource of internal conjunction much less than the higher scoring students and less than the norm for the larger ASSIG corpus as a whole.

There is more reliance on using textual and experiential Themes to construct semantic /logical relations in the argumentation of the larger ASSIG corpus than in the larger CMD corpus. This form of argumentation is more pronounced in the writing of Martin and Tricia than in the other four students in the small corpus. Martin and Tricia seem to use textual and experiential resources rather than interpersonal resources in constructing argumentation in their assignments. In addition to using more internal conjunction in Theme than the other four students in the small corpus, and using more textual Themes than the larger ASSIG corpus, Martin and Tricia use more circumstance Themes that construe causative and consequential relations than the other students in the small cohort.

Table 36: Circumstance Themes realising cause and contingency per 100 t-units

Students	Circumstance Themes realising cause and contingency
Martin	8.68
Tricia	10.45
Elenna	6.79
Sean	7.69
Alex	6.91

Another other feature of Martin's and Tricia's use of C.F. Themes is their infrequent use of interpersonal Themes in the assignments. Table 33 above shows the total selection of all interpersonal Themes in the small corpus. Table 37 shows selection of Themes that have a particular function of denoting stance. This indicates that Martin and Tricia, though they infrequently use interpersonal Themes in assignments, select projecting clauses, other than interpersonal modal metaphors, more frequently than the other students. I believe that use of this resource indicates that their argumentation is more abstract and centred in the discipline.

Table 37: Choice of interpersonal Themes per 100 t-units

Students	Modal adjunct	Projecting cl. Obj. mod. met	Projecting cl. Subj. mod. met.	Other proj. cl.
Martin	1.08	0.65	0	1.74
Tricia	2.94	1.60	0	1.88
Elenna	1.94	3.88	2.91	0.9

Students	Modal adjunct	Projecting cl. Obj. mod. met	Projecting cl. Subj. mod. met.	Other proj. cl.
Sean	1.23	2.71	1.00	0.98
Alex	2.71	0.76	1.55	1.02

They select more projecting clauses in Theme to attribute propositions to course authorities and to give agency to objects of study. In Table 37, this is signalled by their greater use of Other projecting clauses (Other proj. cl.). Example 111 is typical of the way Martin uses this resource.

Example 111: Projecting clause attributing to a course authority
Traecy and Wiersema state that **the value propositions** \ are not mutually exclusive and more attention could be placed on the customer aspect of the business. (Martin.tma1.cl.168)

In the example, agency is given to course authorities and hence aspects of the discipline are given agency. This resource is more exploited by Tricia, who, by the use of grammatical metaphor and semiotic abstraction, gives agency to course concepts and objects of study in the course, and thus reaches a high level of abstraction.

Example 112: Tricia's use of course concepts in projecting clauses.
a) *A comparison of the management control systems of the governmental organization the Income Tax Division and the for-profit business TMS shows that,* despite some commonality related to the use of classical approach features, **there are** \ some important differences in the ways the organizations are controlled. (Tricia.tma3.283)

b) HOWEVER, IN ADDITION, *its linking of individual performance measures to strategic goals through the BSC suggests that* **BTP** \ appreciates the importance of using performance not just as a control mechanism. (Tricia.tma1cl.44)

Other students in this small corpus, who use more interpersonal Themes than Martin and Tricia, make less use of this resource and hence do not exhibit these features of disciplinarity in their argumentation. Elenna, for instance, though she makes use of interpersonal Theme to create stance, using more objective and subjective modal metaphors than Martin and Tricia, selects Theme to attribute to others only twice. Only

one of these instances attributes a course authority and there are no grammatical metaphors or semiotic abstractions in projecting clauses in her writing.

In their use of modal adjunct as interpersonal Theme, Martin and Tricia follow a similar pattern to other students in the small corpus, with all students choosing similar lexis, for example, *unfortunately, in particular, interestingly* were common in all these assignments. Therefore, it is in the use of projecting clauses that Tricia's and Martin's use of interpersonal Theme differs.

Another of the indicators of academic argumentation, discussed in Chapter 3.8, is the use of resources for packaging information into complex nominals. Tricia makes more use of this resource than any of the other students in this small group, employing complex nominals both as subject Themes and in projecting clauses. As we have seen, Tricia thematises projection in *1.88* per 100 t-units in her assignments. Six of the eight projecting clauses in Theme position in Tricia's assignments contain complex nominals and semiotic abstractions as in Example 112 above.

Tricia was positively appraised in all her assignments for making reference to, and applying, course concepts. I believe it was by the use of this resource that she was able to make causative links between this theory and her own business. Alex, by contrast, uses almost no complex nominals as Theme.

Both Martin and Tricia also used Topical Theme differently from other students in this small group, with the exception of Sean.

Table 38: Pronouns as subject Themes in the students' assignments

Student	Subject Themes per 100 t-units	pronouns as subject Themes per 100 t-units
Martin	98.6	4.77
Tricia	94.63	7.23
Elenna	87.86	14.07
Sean	92.83	7.65
Alex	85.89	30

The opportunity to develop the field by use of classificatory nominals or more complex nominals as subject Theme is greater when students do not use pronouns as subject Themes. Table 38 shows that Martin, Tricia and Sean have the potential to do this. Alex deploys pronouns as subject Theme frequently and this suggests that his usage is closer to that found in the larger CMD corpus.

I conclude that Martin's and Tricia's Theme choices reflect their stated belief that both the assignments and the CMD were argumentation. There is a further factor here. They change the way they construct argumentation between the CMD and the assignments. In the assignments, their style of argumentation seems to comply with the institutionally sanctioned norm in so far as they have not foregrounded stance and sought an objective voice rather than subjective evaluation. I suggest that they may have complied with this because of a more robust meta-knowledge about writing, and their earlier experiences as university graduates may account for this. More research is needed to verify this.

A student who took a very different view of argumentation, and of the relationship between the CMD and the assignments, was Alex. Therefore, I would like to contrast Alex's choice of Themes with that of Martin and Tricia. The Theme choices Alex makes in his assignments are close to the Theme deployment in the large CMD corpus. This indicates that his assignments are very different from other students in this small group and are closer to the writing found in the CMD corpus. In his assignments, Alex's choice of subject Theme indicates that he makes less use of noun phrases or complex nominals. A constant issue in his tutor's comments is not that he does not argue, but that he does not incorporate the course theory into his assignments.

Figure 9: Bob's comments about Alex's assignments

In fact, the main evaluation was quite noticeably lacking in the use of course theories and concepts; try to make their use more explicit i.e. refer to the concepts specifically, as you did in your final section...

More use of course theory might have revealed that a move to a more post-modern control system might bring positive benefits. (Bob's comments TMA 2)

The fact that classificatory nominals or complex nominals are not often the subject of his sentences may be one of the factors which account for this comment. A further analysis of his use of pronouns as subject Theme shows that Alex constructs very different interpersonal positioning in his argumentation, which again shows features of the CMD corpus. He uses *you* as subject Theme (thirteen instances) as an inclusive other, realising an involvement with the reader.

Example 113: Subject Theme
<u>If you want to improve yourself **you**</u>   \ are on your own as there is no benefit to the company. (Alex.tma3.cl.119)

He uses *we*, making his company the topic of his sentence (fifty-two instances)

Example 114: Subject Theme
<u>SO *I expect* **we**</u> \ will do what we always do when confronted by something new,
(Alex.tma5b.cl.90)

He uses *I* as subject theme (eighteen instances) and he also has sixteen questions in his assignment. This realises a very much more involved text than is the norm for the assignment corpus.

Other evidence for this lies in his use of projecting clauses as interpersonal Theme. Unlike Martin and Tricia, he does not project course authorities nor objects and concepts of the course. Alex uses this position to project the opinions of management in his business, rather than the course authorities or the objects of study in the course. Therefore, unlike the other students, Alex complies with few of the requirements of academic writing and also does not evaluate what the assignments intend him to evaluate. It may be significant that he was not able to articulate an overall meta-knowledge of his own writing processes or of writing in academia.

A final comparison seems to lend support to my conjecture that lack of overt evaluation is a feature of the argumentation promoted by the tutors. Although Martin and Sean both have the same tutor, Martin's argumentation is appraised positively, though he uses very few interpersonal Themes. In contrast, Sean's argumentation is criticized, though he uses more interpersonal Themes than Martin, and this deployment of interpersonal

Themes is very similar to the norm for the larger ASSIG corpus. The extracts from his tutor's comments on an assignment show that it is his tenor that is being criticised.

Example 115: Tutor's comments

I found that although you have made many interesting points, there is a lot of description and even assertion in your discussions and for this reason I was unable to award the pass grade of 28 marks. (TMA03 Tutor feedback)

In Example 116 Sean was criticised for using the interpersonal metafunction in Theme position. The Theme is underlined and Jan's comment about the use of *obviously* is shown below.

Example 116: Sean's use of interpersonal Theme and the tutor's response
Obviously, the evaluation of the effectiveness of the management control system \
plays a major part in its validity, appropriateness, and continuance (Sean.tma3.cl.87)

Tutor's comment

Sean – avoid! Obvious to whom? (Comment on Sean's tma3 assignment)

Overall, Sean's use of interpersonal Themes in his assignments is twice that of Martin's. He uses pronouns as subject Theme more than Martin, and makes much more use of subjective and objective modal metaphors in Theme. Hence he is foregrounding his comments on the propositions as a projection more than Martin.

Table 39: Modal metaphors as Theme per 100 t-units

Student	Interpersonal Theme	per 100 t-units
Martin	Objective and subjective modal metaphors as Theme	0.65
Sean	Objective and subjective modal metaphors as Theme	3.71

In his interviews, Sean said that he had to comply with the tutor's way of writing, rather than his own and seemed somewhat puzzled by her comments. It might be hypothesised that his Theme choices reflect a more assertive tenor than that condoned by the tutor.

10.2 Conclusion

Section 10.1.9 above has made a tentative connection between the students' Theme choices, their attitudes to argumentation, and their overall meta-knowledge about their writing processes, as far as these can be understood from their interviews.

There is linguistic evidence in Chapter 9, and in the writing of some of the students discussed in the present chapter, that points to features of argumentation akin to business and academic norms being present in the students' assignments. However, the document analysis and interviews with students suggest that a much more pervasive influence is the course and the tutors. Investigation of the tutors' advice, conducted in this chapter, has raised the possibility that the tutors act as 'linguistic gatekeepers'. It has been shown that the comments made by the tutors are intended to guide the students in their writing, and the document analysis has shown that this advice included comments on aspects of argumentation. All the varied documents concerned with standards and forms of argumentation, analysed in this chapter, are the background understanding of argumentation by which the students' assignments are assessed by the tutors. Thus, the tutors are the gatekeepers of what is acceptable in the argumentation of the students, and the influence of the wider academic business community is mediated through the tutors and the course rubric. That one tutor believes that her interpretation of acceptable writing is informed by the wider academic discourse community, has already been discussed. I suggest that the influences of the wider discourse of professional academic business writing is mediated through the teaching of the course, and, hence learning how to write appropriate argumentation is specified by the course, rather than the wider academic community.

In addition, the chapter also discussed the possibility that the predispositions, attitudes and knowledge that the students themselves bring to the course may be factors that influence the argumentation in the ASSIG corpus. I suggested a predisposition to viewing writing as argumentation, a meta-knowledge about writing itself, plus experience of academic writing, led students to meet the requirements for argumentation of the tutors. This is supported by Prior (1995), who found that tutors, institutional contexts and students' individual educational and social histories were very influential in

shaping students' academic writing, and argues that the influence of the genres of professional academic writing on student writing is mediated by many institutional and personal factors.

There is some evidence in the interviews that the students' attitudes towards argumentation and towards other members of their group may shape the features of the argumentation in the CMD corpus. The interviews showed that the students held a range of views about the purpose of the on-line conferences and the necessity for argumentation in the conferences. The research in this chapter has revealed little external influence on the argumentation in the cluster groups, other than the tasks set by the course team (see Appendix 1). Linguistic evidence found a tendency to abbreviate into note form, and to list information (and hence not use Theme/Rheme organisation), which suggests brevity is a value shared by the students. The value of brevity was noted by Mulholland (1999) as a feature of business use of emails. Thus, the students' professional backgrounds may influence the discourse in the CMD. This needs further research. Apart from these characteristics, the features of argumentation found in the CMD corpus cannot be attributed with certainty to the influence of external institutional factors or disciplinary factors. It is argued that the dialogic mode, as an aspect of register, seems to promote a collaborative tenor, and the students interviews, in addition to linguistic evidence, supported this claim. All the students interviewed said that they attempted to be careful not to cause offence in their messages. This is a very important influence on the argumentation.

Students perceived the connection between the on-line argumentation and the writing of the assignments in different ways: some students saw direct connections between arguments developed in the CMD and arguments used in their assignments, while others saw the practice of writing itself, in terms of appropriate ways to express ideas, transferable from one context to another. Others made very little connection between the two contexts. However, the majority of the students were aware of a connection.

Several reasons for these different perceptions were discussed in this chapter. Whether the task was perceived as primarily information gathering or as argumentation reflects the students' predispositions to learning in the course. This orientation seems to

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influence how they engage in argumentation, as most of those who see the tasks as primarily argumentation said that they transferred arguments, not just facts, from the conferences to the assignments. Another factor that influenced how students perceived the connection between the on-line argumentation and the writing of their assignments was the extent to which they had actually engaged with the conference. Some students were so dissatisfied with the argumentation in their group that they found little to transfer to their assignments. In other cases, their perception of the tenor of the exchanges influenced how far they took part in the conference. Several factors, such as lack of familiarity with other group members, or feeling less competent than other students, precluded some students from taking part in the discussions or inhibited their argumentation. Another factor that inhibited participation in the conference discussions was the time factor, as some students were unable to meet the deadlines for participation.

The results of the research in this chapter suggest a complex range of influences on the argumentation of the students in both modes. The mediation of the tutors is paramount, but the backgrounds the students bring to their studies, their attitudes, and the technology also influence the way they write argumentation. Thus, the chapter has traced individual and institutional factors, plus technological factors, that influence the argumentation, without awarding priority to one.

11 Conclusion

11.1 Argumentation in two modes

The study investigated the features of argumentation found in two modes and the ways in which students engaged in argumentation in these contexts. It also investigated the attitudes of individual students to the argumentation in each context, plus the relationships they found between the different modes of argumentation. In addition, the wider context of institutional advice about writing argumentation was examined.

According to the view of argumentation as a dialogic engagement with two or more points of view, developed in Chapters 2 and 3, the Theme analysis showed that the CMD corpus makes more overt reference to other viewpoints than the assignment corpus. A key resource for this in the CMD corpus is the use of vocatives and projecting clauses as Theme, which enables students to attribute propositions to other students and to themselves. In this corpus, interpersonal Themes in the CF also enable the students to align their propositions with those of other students. All these Theme choices develop an intertextuality that realises multi-perspectives on the topics being discussed, thus there is more dialogicality in the CMD corpus.

The ASSIG corpus, by contrast, is less overtly dialogic. It has far fewer CF Themes and attributes propositions by use of projecting clauses much less often. Though attribution may occur in Rheme, it is not foregrounded in Theme, as occurs in the CMD corpus. Unlike the CMD corpus, the writers in the ASSIG corpus do not become so visible in the text, nor do they align themselves with other points of view, and so intertextuality is less foregrounded. In the ASSIG corpus, there is one area where 'the reader-in-the -text' is realised and that is by use of concession construed by experiential Themes in the CF, yet overall, in this corpus, a text is constructed which appears not to engage overtly with two points of view.

The argumentation in the CMD is more open to challenge than in the ASSIG corpus. This is evidenced by much more writer visibility, realised through personal pronouns in both the CF Themes and Topical Themes. In addition, the modality is more subjective and writer commitment is more tentative, with much use of subjective modal metaphors such as *I think* in Theme. It is argued earlier in this thesis that use of these resources by writers signals less commitment to a claim, and this can open up the argumentation to response (see discussion in 3.4.1). By contrast, in the ASSIG corpus, hedging by use of a variety of CF Themes, and the use of personal pronouns in Topical Themes, occur much less often. In this corpus, degrees of writer commitment to a proposition may be realised by use of modal verbs, but, of course, these were not analysed as they occur in Rheme. The more overt use of subjective modal metaphors as projecting clauses, to signal degrees of writer commitment, is a resource little used. The ASSIG corpus employs far more Topical Themes as first in clause, many of which are classificatory nominals, and uses far fewer personal pronouns as Theme. This constructs a more apparently objective form of argumentation and consequently may lead to a form of argumentation less easy to challenge. This argumentation may, therefore, assume a more authoritative tone associated with business and administrative writing (see 3.8).

The study also revealed differences between the two contexts in the tenor of the argumentation. The argumentation in the CMD seems to give priority to creating solidarity, as well as constructing an overt stance. This was referred to in Chapter 9, where I suggested that several Theme choices constructed this tenor. These included non-congruent forms of evaluation, namely the use of preface clauses to reflect a writer's state of mind (see Section 9.2.1.1), the choice to ellipse Theme and construct Rheme-only clauses, use of informal lexis in Theme, and use of non-Theme choices, such as minor clauses. All these resources, I argued, contributed to constructing a friendly and cooperative tenor, which influenced the kind of argumentation possible. The use of Theme to reference other students' arguments and align the writer with these propositions also produced a specific, collaborative form of argumentation.

The findings about the tenor of the CMD corpus are supported by much of the literature reviewed in Chapter 4 and 5. In these chapters, studies that showed computer conferences and emails to have a friendly or intimate tenor were reported. In these

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studies, several factors associated with the technology of the channel of communication were offered as reasons for this intimacy. The influence of the technology was on addressivity, because of disruptions in temporal sequencing and normal conversational turn-taking practices (see Sections 4.3 and 4.4). The reasons offered were that this disruption led to a greater need to identify and name co-participants and this, in turn, led to a tenor of familiarity. Another factor discussed in Chapter 4 was the ambiguity of audience caused by the dialogic context, in which the audience seems very close, yet there is a spatial and temporal distance between writers. Studies discussed in that chapter suggest that writers seem to strive to overcome this ambiguity and this results in a more intimate tenor. In addition, the review of literature reported that argumentation in CMD environments has less counter-arguments and an 'associational' form of arguing (see Section 5.2). It seems that the dialogic, yet written, nature of the technology itself can deter participants from face-threatening statements because of the permanence of the written mode. This hypothesis was supported by the interviews reported in Chapter 10, in which students said that they were circumscribed in the way they made their points, aware that they may give offence. Added to this is the research discussed in Chapter 5, which suggests that the students may have a predisposition to cooperate because they are engaging in an educational computer conference. It, therefore, appears that the features of argumentation found in the CMD corpus, which I argue in Chapter 9 construct both stance and solidarity, may be a consequence of the CMD mode and the educational context.

Although the tenor of cooperation was a feature of the CMD corpus as a whole, the interviews showed that different students engage very differently in the argumentation in the CMD. As Chapter 10 reported, there were differences in the extent to which students engaged in argumentation in this mode. Some students did not perceive of the activity in the conferences or in the assignments as argumentation, others experienced the activity in their conference group as poor quality argumentation, and so did not engage, while others experienced the technology itself as inhibiting argumentation. These different views militate against making generalizations from the corpus alone. Though the corpus gives insight into the habitual usages of the students' argumentation, it cannot provide evidence of individual students' argumentation and attitudes.

The tenor constructed in the ASSIG corpus was different. Most of the linguistic features that constructed solidarity in the CMD corpus were absent. The ASSIG corpus did not often thematise writer visibility and did not often select Themes that construct interactivity. It did thematise objective modality and, by use of Topical Themes, create an objective voice. Thus, it tended to distance itself from the reader and it was hypothesised above that the tone may be more authoritative than in the CMD corpus. The only thematised feature of interactivity was the use of imperatives, and as I argued in Chapter 9, the way in which they were used in this corpus resulted in an hortatory kind of argumentation (Martin, 1989), in which the reader is directed to do something. Again, these are conclusions reached from the corpus as a whole, and, as was discussed in Chapter 10, there were differences in how far individual students adapted these features of argumentation in their assignments and how far they differentiated their argumentation from that used in their CMD messages.

An important difference between the corpora, commented on in Chapter 9, is the difference in attributions made by the students in their argumentation and the sources to which propositions were attributed. In the CMD corpus, the source of propositions was overwhelmingly the writer or other students, whereas in the assignments, attributions in Theme were far less common, and the source was rarely other students. The more dialogic mode in the CMD seems to prioritise the participants as agents in a sentence or as a source of a proposition, whereas in the ASSIG, the agency is very often aspects of the field construed as Topical Themes, while the students themselves are rarely attributed as sources. The significance of source to the values held by a discourse community, and the significance of source to the epistemology of a subject area in general was discussed in Chapter 3. It may be that the differences in argumentation represent difference in values between the two contexts of argumentation.

Linguistic evidence points to the influence of academic and business norms on the argumentation in the ASSIG corpus because of the seemingly more objective and more categorical tenor, and, perhaps, more authoritative tone. However, the interviews suggested possible influences as the course rubric, the tutors themselves, and the students' meta-knowledge about writing on the writing in the assignments (see Chapter 10). The tutors do seem to be a primary influence, though again, there is no way of

knowing to what extent individual students were influenced by their advice. Analysis of the course rubric and tutors' comments seem to point to the existence of preferred ways of organising assignments. The kinds of claims which were acceptable, and the kinds of grounds by which these claims could be supported, were specified, though the comments of the individual tutors did not produce a cohesive view, and the course rubric provided guidance separate from that given by the tutors. Thus, any influence of the wider discourse of professional academic business writing is mediated through the teaching of the course, particularly through the tutors, and, hence learning how to write appropriate argumentation is specified by the course, rather than the wider academic community.

The interviews in Chapter 10 explored the students' perceptions about writing and argumentation in the course, and showed that there were many other influences on the students' writing. These were business experience, previous educational experience, and personal preference. However, the Theme analysis of the small cohort of students seemed to indicate that students with a meta-knowledge about writing, and particularly, the knowledge that academic writing requires argumentation, presented features of argumentation in their individual writing. These students, in their interviews, were able to reflect on writing itself. Based on these interviews, there is some evidence that some of the students' argumentation may have been influenced by business and academic conventions from experience gained from outside the course, but the extent of this influence differed between individual students. Therefore, though it may be argued that business and academic norms may have shaped the argumentation in the assignments through the mediation of the tutors and course, the extent of this influence is difficult to assess.

In conclusion, the Theme analysis has shown that the participant relations construed in each corpus were different. The shaping of the argumentation in the CMD corpus shows that the coherence of the text is organised around interpersonal meaning. In the assignments, by contrast, the cohesion is largely ideational and interpersonal meanings are drawn in to support assessments of probability (see Matthiessen 1995 referred to in Section 6.7). I suggest that these differences are based on different ideologies pertaining in each corpus. The CMD corpus reflects values that prioritise cooperation

and a joint construction of argumentation, plus self as a source of propositions. In the assignments, an objective and authoritative stance is taken, in which other voices are not acknowledged, and, in which hedging of claims is not foregrounded. Students make little reference to the reader and their own agency is subsumed in the objectivity.

The differences between the two corpora did not apply to the individual writing of all students, as shown by the interviews. Students' individual motivations and understandings of their tasks differed greatly. The varying perceptions of the students, the multiplicity of advice revealed by the document analysis and the variety of advice given by the tutors show that context is multifaceted and difficult to predict.

11.2 Evaluation of the methodology

This was an interdisciplinary study which combined understandings of argumentation drawn from rhetorical, educational and linguistic bodies of research, plus research into multimodality in the context of on-line learning. Three types of methodology were used in the study, Theme analysis, interviews and document analysis. All three contributed to an understanding of features of argumentation in each mode, plus they allowed hypotheses of why the argumentation differs between the corpora. I suggest that on their own, as discrete methodologies, each would have provided only a partial understanding.

11.2.1 Theme

Theme analysis, together with the S.F.L. concept of register, was able to identify features of argumentation found in each corpus and relate these features to aspects of the register in which the argumentation was produced. Thus, the register element of mode was found to be particularly significant in the argumentation. The configuration of Theme used in the study was a bipartite one, in which Themes in a clause complex are understood to be an obligatory subject Theme and optional context frame Themes. The comparison of Topical Themes, together with the comparison of context frame Themes, showed that the coherence of the CMD was interpersonal, while the coherence of the assignments was ideational, thus marking the argumentation as different in

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specific ways and allowing a conclusion that the mode of CMD contributed to these differences.

Theme analysis also made it possible to investigate the argumentative writing of individual students in both the conferences and in the assignments, as reported in Chapter 10. This analysis provided a different perspective on student writing in the study because the corpus analysis provided information about overall characteristics, or habitual language use, within the corpora as a whole, while the analysis of the writing of individual students showed individual differences. These differences led to hypotheses about students' knowledge about writing and their predisposition to argumentation. The analysis was able to show that some students used far fewer argumentation strategies in their CMD and may not have engaged in argumentation in the conference, a finding which has implications for teaching that are discussed later in this chapter. Theme analysis of individual students' assignments revealed that some students' Theme choices were similar to those found in the CMD corpus. This implies that these students had not adapted their writing to the exigencies of the assignments, which, again, has implications for teaching. Finally, combining corpus analysis with analysis of individual students' writing provides a benchmark against which to investigate individual students and enables judgements to be made about the writing of individual students.

There were drawbacks to the use of Theme. Theme analysis could distinguish between the aspects of argumentation as already discussed, but left other questions unanswered. Given that the assignment argumentation foregrounded ideational information in the sentence, aspects of argumentation other than those already described could not be accounted for using Theme. Thus, the methodology revealed the dominant characteristics of the CMD argumentation which occurred at the beginning of the clause, but revealed only that these features were less prominent in the assignments. Though Theme analysis was able to discern differences in use of textual Themes and experiential Themes in the two corpora, which, in themselves, suggested differences in the semantic relations being wrought in the corpora, the analysis of this aspect of argumentation was limited.

Another problem for the Theme analysis was that many linguistic structures used by the students did not have Theme/Rheme organisation. The research studies that informed my choice of configuration of Theme were of academic research articles, student essays and other more formal written genres. In these texts, most sentences were declarative, and most texts were composed of sentences written in full clauses or clause complexes, hence utilising Theme position. None of this research discussed the implication for meaning of structures in which Theme is not utilised. The CMD corpus in my study had a far more varied range of structures than conventional academic writing, some of which did not have a Theme/Rheme organisation, yet I consider that these structures contribute to the argumentation in the discourse. I discussed this feature of the corpus in Sections 8.8 and Section 9.1.4, where I argued that the dialogic and speech-like nature of CMD resulted in Theme being ellipsed or Theme/Rheme organisation not being utilised. Hence, in these features of the texts, Theme analysis was not useful, except to note the absence of Theme and the effect this had on the tenor of the discourse.

I also suggested that the influence of business practices may have led to students listing facts as bullet points in their arguments or writing in note form, and, in both these forms of linguistic patterning, Theme was not employed. Therefore, Theme/Rheme did not offer a way of analysing these aspects of argumentation, except to note its absence.

This limitation of Theme analysis does not, I argue, lessen the claims I have made about the differences between the argumentation in the two corpora. Based on the arguments made for the function of Theme in Chapter 8, I contend that differences in choice of Theme indicate differences in aspects of argumentation as found in the results of the analysis.

11.2.1.1   Alternatives to Theme analysis

This study focused on the influences of context, ideology and interpersonal positioning on argumentation, as revealed by Theme. Chapter 3 attests to the influences of these factors in shaping argumentation. Other prominent features of argumentation also discussed in Chapter 3 are semantic and logical relations and these were also explored

using Theme. Important differences between the corpora were identified and discussed in Chapter 9. However, semantic and logical relations are also constructed by many linguistic resources other than Theme, and Theme revealed only those in which conjunctions and conjunctive adjuncts were used. Other notions of deep semantic relations between parts of a text were therefore not available for analysis in the study.

Thus, another possible way to analyse the argumentation would be to explore these aspects of argumentation in the corpus in more detail. Developing the existing analysis to explore in much more detail the use of nominalisation, grammatical metaphor and semiotic abstraction would make possible an investigation of the embedding of causation through use of these resources in each mode. This combined with an analysis of the use of hyper-Themes may indicate more about the organisation of the argumentation in each corpus.

Toulmin et al.'s procedure for argument (1979; 1984), though it does not offer an analysis of argumentation as dialogic, and does not provide the depth of analysis of interpersonal positioning provided by a linguistic analysis, will give information on the logical shaping of arguments. There are also several other ways of classifying formal aspects of argumentation discussed in the literature review. The questions that such a study could answer would provide further insight into how students argue in CMD and the relationship between this argument and that constructed in their assignments. There is evidence (Carter, 2003) that arguments developed in CMD conferences show differences in the structure from that of spoken dialogue. There is also evidence that grounds are more developed in CMD than in face-to-face argumentation. This has implications for the use of CMD in the teaching of argumentation. Thus, an analysis using Toulmin's schema, or other such models of argument, may show differences between the two modes that the students have to negotiate.

The students were encouraged to use diagrams in their assignments, provided by the course team and available on a course web site. How these diagrams were used in the argumentation, whether they provided information to support claims, or whether they were arguments in themselves, is a further area for research. Theme analysis does not lend itself to exploring multimodality of this nature, and a wider view of argumentation,

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which encompasses visual as well as verbal modes, is needed to investigate these features of the assignments.

11.2.2 Document analysis and interviews

The document analysis and the interviews with individual students provided an account of the overall teaching and learning context in which the argumentation was written. The results of applying these methodologies supported some of the indications about the context hypothesised from the Theme analysis. They also provided information on the relationship between the CMD argumentation and the writing of assignments.

The document analysis provided evidence that argumentation in the assignments was both expected and given credit in the marking schemes in this course. It provided evidence about the various expectations for argumentation held by the institution and the expectations for argumentation presented by the tutors to the students. The document analysis, together with analysis of the tutors' comments, go some way to answering questions about the influences on the argumentation. The tutors did seem to have expectations about how students should argue in the assignments. They believed that the students' argumentation should follow certain patterns and draw on specific evidence. Thus, given that their feedback was based on these views, this analysis contributed to an understanding of the argumentation. Analysis of the documentation raised questions about how students can be instructed in writing appropriate forms of argumentation and this contributes to the discussion of learning in the thesis.

The interviews provided evidence of individual students' attitudes to argumentation in the course, and students' experience and prior knowledge about writing argumentation. This methodology provided a way of hypothesising the kinds of knowledge and attitudes that led to institutionally approved ways of arguing in the assignments. The interviews also revealed student attitudes that influenced their participation in CMD conferences. Both the document analysis and the interviews were therefore able to show that in this study, 'context' is not one thing but a multitude of institutional and individual attitudes, plus the exigencies of mode.

These factors could have been further refined with more interviews and follow-up interviews. A better understanding of differences between individual students' argumentation on-line and in their assignments could have been discerned if it had been possible to interview more students. In addition, a clearer picture of difficulties experienced by individual students in both modes could have been developed, which, again, would have had implications for teaching and learning. Interviews always carry limitations due to possible reactivity and reflexivity in the responses and researcher bias in analysing the responses. Though great care was taken to avoid these problems, ideally, follow-up interviews may have mitigated against faulty interpretation of students' responses.

In Section 11.1, I argue that it is not possible to make categorical claims about the style of argumentation in the assignments. A much more detailed analysis of business writing may have made it possible to account for the forms of argumentation I found in these texts. However, Prior (1995) and Candlin (1998) warn about making claims about the generic provenance of student writing. This was discussed in Section 10.1.1, where I reported Prior as arguing that biographic, interpersonal, institutional and sociocultural contexts should be investigated in order to understand the generic provenance of students' assignments. The interviews with students in the present study provided some of this information, but more students need to be interviewed, together with much more searching investigation of the tutors' priorities, in order to understand the sociohistoric influences on the argumentation in the assignments.

11.3 Issues in the literature reviews

The studies of argumentation discussed in the literature review chapters were largely concerned with face-to-face and conventional written argumentation. It was stated in these earlier chapters that there are very few studies of argumentation in CMD and thus the present study extends this field of argument studies.

11.3.1 The language of CMD

A prominent theme in the literature was the language of CMD and the relationship of CMD to wider discourses. Several studies were reviewed that question how far CMD reflects wider discourse values and practices. As was noted in Chapter 4, this has significance for the present study because of the possible influence on the argumentation in the CMD of the wider business education community.

The findings in the present study bear some relation to those of Gruber (2000), reported in Section 4.5, though too many parallels cannot be drawn, as Gruber was applying Fairclough's (1992) view of discourse, and Gruber's configuration of Theme is different. Gruber found that the email texts and the linguistic research articles shared what he considered to be Topical Themes, characteristic of academic discourse. These were Topical Themes as concepts, characterised by pre and post-modified noun phrases. In the present study, similarities were also found in the forms of Topical Themes. In the CMD corpus, when students were selecting Topical Themes other than pronouns or other students' names, these denoted the same academic business field as the Topical Themes in the assignments. They were very frequently classificatory nominals or complex nominals (see Section 9.2.3) plus evaluative anticipatory 'it' clauses as Topical Theme.

On these grounds, the present study supports the argument that CMD shares features of the wider discourse community, though, as Gruber (2000) pointed out, and as found in the present study, CMD also has very specific features of its own.

Murray (2000), reported in Section 4.5, makes similar arguments. She argues that CMD is very often one of the channels of communication used by a discourse community. As such, CMD will share communicative conventions with that group, while also exhibiting features which are specific to CMD. Murray describes these specific features as a register in which written and spoken forms are used (see discussion in 4.5).

According to these two studies, the evidence suggests that, in the present study, the CMD discussions and the assignments share features that indicate that students may

have been participating in a wider discourse of the business studies course that incorporates both modes. In the present study, it was found that the CMD also has specific language features such as those specified by Murray and common to all the studies reported in Chapter 4. These are the use of casual language, noted in the discussion of textual Themes, the selection of many minor Themes and structures without Theme, and a very high use of pronouns.

This leads to another prominent theme in the literature of CMD, found in Chapter 4, which is the influence of the technology on the language, interaction and participation in CMD. Yates (1996) argues that the language of CMD is not technologically determined but is shaped by the social purposes of the participants (see 4.3). I argued that the choice of language used in the CMD was influenced by the students' social purposes plus the specific nature of the mode, within the wider discourse of the business studies course. In this, the present study supports the research discussed in Chapter 4, but emphasises that the technological influence of the channel of communication is not neutral. The conference technology was found to influence both the amount of participation in the conferences and the interpersonal meaning in the CMD corpus. Hence, as stated above, the social purposes of the participants are influenced by mode and this influences the language and consequently, the argumentation.

It could therefore be argued that the study contributes further evidence to the influence of mode on communication and in this way contributes to the on-going discussion in the literature of multimodality in learning contexts in higher education.

11.3.2 Views of argumentation

Chapter 2 discussed various understandings of argumentation and argued for a view of argument as discourse. This was to some extent based on Candlin's (1998) view that academic literacies are centred on participant relations. I considered that a discourse approach offered more opportunity to investigate what kinds of relations are constructed between reader and writer. Logical, informal logical and Pragma Dialectic understandings of argumentation preclude this view and so does Toulmin's (1979; 1984) understanding of argument. Argumentation as discourse enables ideological,

interpersonal and other contextual factors to be considered, and these proved to be salient in comparing the argumentation in the study. The notion of argumentation as discourse was further elaborated in Chapter 3, where language resources available for argumentation were reviewed. The study was able to investigate the use of these resources by the students and hence develop an understanding of the features of argumentation, including interpersonal meaning and the kinds of participant relations constructed within the argumentative discourse.

Another notion of argumentation, discussed in the literature chapter, is argumentation as intrinsically dialogic. A view of argumentation as being composed of two or more points of view representing different 'voices' in a dispute was developed. Though the limitations of this view of argumentation have already been discussed, the influence on the argumentation of different interpersonal positionings, and other aspects of participant relations, would not have been available for analysis if structural, logical approaches to argumentation had been used in the analysis. Equally, New Dialectic (Walton 1998) and Pragma Dialectic (Van Eemeren & Grootendorst 1984) understandings of argumentation are not applicable to written single-authored assignments, even though they have an understanding of argumentation as dialogic. Hence, these views of argument would also not have revealed the argumentation in the assignments. The discourse view of argumentation enabled both corpora to be analysed for engagement with other points of view, influence of context and participant relations.

11.4 Learning and teaching

11.4.1 Learning

The study has contributed to the discussion of two aspects of learning which were prominent in the literature reviewed in Chapters 1, 5 and 10. These are learning by arguing and learning to write in academia. It was pointed out in earlier discussions that the vast majority of the literature about on-line learning, or small group discussion in general, is concerned with the cognitive aspects of learning. This tends to be studied

using Vygotskyan or other theories of sociocognitive and sociocultural learning. Another body of research discussed in the literature review focuses on argumentation as a way of learning (e.g. Andriessen et al., 2003; Marttunen & Laurinen, 2001). This is a smaller, but growing, field and it is to this area of research that the present study contributes. When considering argumentation as learning, views differ. Andriessen and Baker consider the learning that occurs in argumentation to be, in part, the result of cognitive conflict (see Section 5.2) and draw on Pragma-Dialects (e.g. Van Eemeren & Grootendorst, 1984) as a way of analysing argumentation. The present study was not designed to discern the cognitive processes of the participants, but the evidence of their argumentation, namely the CMD and assignments, suggested a cooperative building of argumentation. The learning in the CMD seems to be in the building of argumentation, in which alternative viewpoints are presented, appraised and built on. The argumentation in the assignments, as revealed by Theme analysis, did not overtly engage with another point of view.

Wegerif (1997) argues that learning occurs through sociocultural interactions, as a consequence of the discourse produced in small group talk. This seems more akin to any learning that might have occurred in the CMD discussions in the present study, though the study was not designed to assess sociocultural learning as such.

What all these studies do have in common is the claim that learning occurs through argumentation. The possibility that this might occur in the present study has been discussed above and in earlier chapters and points to potential areas of learning in the CMD discussions.

The first is the potential for learning to argue in the field of business studies offered by the CMD discussions. Evidence that students use Theme to scaffold ideas and jointly develop argumentation was discussed in Sections 9.2.1.5, where it was concluded that the students read other students' propositions and responded to them and built on them in their own argumentation. This was confirmed by some of those students who were interviewed (see Section 10.1.7). Thus, there is some evidence, both linguistic and from interview data, of learning occurring in the CMD conference.

The evidence that argumentation occurs in the conferences offers another potential for learning in this mode. There is a potential for students to approach concepts as constructed meaning, rather than unchallengeable facts. The evidence that argumentation occurs suggests that the students have an opportunity in the CMD conferences to develop an orientation to argumentation and develop an approach to the course concepts which encourages argumentation rather than the recounting of information. The interviews showed that some students did not have this orientation at the time of interview. A longitudinal study, from first conference to last, may provide evidence of a development in the extent of argumentation that occurs in the CMD. There was interview data that one group did develop its ability to argue in this mode, as the course progressed.

A further potential for learning in the conferences is the acquisition of disciplinary argumentation. Earlier discussions (see Chapter 1 and Chapter 10) noted that learning to argue in the disciplines was a potential problem for students, but studies (Lea, 2001; Morgan, 1996) reported in Section 5.3, argued that the use of multi-party computer conferences helped students acquire disciplinary specific argumentation. I suggest that the CMD offers students the opportunity to make deep connections between course concepts in the form of argumentation and this may contribute to the assignment writing. Both Prosser and Webb (1994) and Campbell et al. (1998) (see Sections 9.2.1.5 10.1.7) write that opportunities to process and conceptualise assignments before writing have significant effect on the organisation of argumentation. There is also evidence in the interviews (see Section 10.1.7) that some students take writing directly from the CMD and use this in their assignments and other students use the arguments developed in their CMD in their assignments. Thus, there is evidence to support the claim that the CMD conferences support the students in developing argumentation in the field of business studies and this argumentation may help them process the assignment questions.

However, the results of the Theme analysis show that students have to adapt their argumentation in several ways in the assignments. The CMD corpus draws on interpersonal cohesion and the writing in the assignments is organised to foreground ideational information. Tenor is different, participant relations are different and

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semantic connections are made in a different way. In terms of these aspects of argumentation, the evidence does not show how the argumentation in the CMD contributes to the argumentation in the assignments. The CMD discussions do not provide learning opportunities for organising argumentation in the forms recommended by the course rubric and by the tutors. Though students may well learn to argue about the concepts of the course, there is little evidence to suggest that they learn the ideational foregrounding of argumentation by participating in the conference. Students have to adjust their argumentation to the requirements of the assignments.

11.4.2 Teaching

Given that participation in argumentation in the CMD is a way of developing argumentation in the field of business studies, as far as that is represented by the Management Diploma course, it is crucial that students participate in the conferences.

In Chapter 10, the study revealed aspects of the organisation of the learning that prevented students from taking part in the conferences. Though some of these problems could be resolved by more course direction and better design of the web-site, the interviews suggest that adult students choose how much time to invest in the activities and choose not to do more than the minimum required in the conferences. The conferences were mandatory but the potential for learning through argumentation does not seem to be fully recognised. Though there is an expectation for argumentation provided by the tasks set for the conferences, the policy for assessment of the on-line contributions, discussed in Section 10.1.1, does not award the students for engaging in argumentation in their discussions, nor is there any guidance about how to do this.

I believe this is to the detriment of the learners. The conferences offered such rich potential for engaging students in argumentation, and this thesis has argued that argumentation can enhance learning. It follows that research into ways of encouraging argumentation in on-line conferences should be pursued. Course teams should be aware that systems need to be set up which encourage students to contend with each other's ideas. Recognition of the benefits of argumentation in this mode, revealed by this and

other studies, suggest that the on-line participation should play a bigger part in the assessment of this particular course, and in the assessment in higher education in general, and that criteria for assessment should be developed.

11.5 A research agenda

This has several orientations. The genre of business education needs further study, particularly the form of the argumentation. This study made some hypotheses about the nature of the argumentation, but more research, using linguistic methodology, needs to be applied to find out how far, and in what ways, students are expected to argue.

Another aspect of this study which needs further research is the influence of business and the discipline of business education on the CMD conferences. CMD is researched from many aspects, as discussed in this study, but comparative studies of students arguing in different disciplines may reveal that there are disciplinary influences in the way information is communicated and in the argumentation. Again, this study hypothesised some influence from business ways of communicating, but much more needs to be investigated. Findings from such studies would contribute to research of multimodal means of learning in higher education.

At the beginning of this study, focus on the CMD was largely as a way of preparing students for writing assignments. However, theorising CMD as part of a multimodal view of learning and writing (e.g. Kress, 2000a; 2000b), in which students draw on many modes to construct their own meaning, in several different media, may provide a better insight into the affordances of this pedagogic tool. A question the study did not address was the role of the many different media available to the students in their meaning-making. Thus, the way students drew on the course texts, the videos, the web-based resources, as well as the CMD, to construct their meaning, needs research.

More specifically, the many different texts that constituted the CMD would be considered. The use of diagrams in both media, other students' notes pasted to the conference site and inserted into messages, the copying of other messages, the insertion

of parts of messages into other messages, the questionnaires which were incorporated into messages, quotation from course texts, the quoting of other students' words in both media, needs investigation.

Using the collaborative affordances of the conference tool to teach disciplinary argumentation also needs research. Possibilities of collaborative writing and peer editing need researching as a way of inducting students into the conventions of disciplinary writing. This would provide a role for the tutor during the process of composition and, hence, the advice and guidance on disciplinary conventions could be formative during the writing process.

The study indicates that assumptions about wider, societal influences and conventions on student writing needs further research. The influence of norms associated with the discipline or institution on both the writing of individual students, and on the tutors understanding of argumentation, also needs research. The interviews showed that many influences, or what Prior (1995) terms sociohistories, impact on what students consider appropriate ways of writing. Similarly, tutors understanding of course expectations differ, while students may not always be aware of these expectations. Just as argumentation is not one thing, but many, context is not one thing, but diverse and complex, and situation-specific research of academic writing practices is needed in order not just to 'help' students to write, but to find an agenda which takes into account the many ways in which academic meanings are conveyed.

References

Anderson, T. (2001). Assessing Teaching Presence in a Computer Conferencing Context. *Journal of Asynchronous Learning Networks, 5*(2). Retrieved from the World Wide Web 9/10/2002: www.aln.org/alnweb/journal/vol5_issue2

Andrews, R. (1995). *Teaching and Learning Argument*. London: Cassell.

Andrews, R. (2001). Reconceiving Argument. In R. Andrews & S. Mitchell (Eds.), *Essays in Argument*. London: Middlesex University Press.

Andrews, R. (2005). Models of Argumentation in Educational Discourse. *Text, 25*(1), 107-127.

Andriessen, J., Baker, M., & Suthers, D. (Eds.) (2003). *Arguing to Learn: Confronting Cognitions in Computer-Supported Collaborative Learning Environments*. Dordrecht The Netherlands: Kluwer Academic Publishers.

Andriessen, J., & Coirier, P. (1999). *Foundations of Argumentative Text Processing*. Amsterdam: Amsterdam University Press.

Andriessen, J., Erkens, G., Van de Laak, C., Peters, N., & Coirier, P. (2003). Argumentation as Negotiation in Electronic Collaborative Writing. In J. Andriessen M. Baker & D. Suthers (Eds.), *Arguing to Learn: Confronting Cognitions in Computer-Supported Learning Environments*. Dordrecht The Netherlands: Kluwer Academic Publishers.

Askehave, I., & Swales, J. (2001). Genre Identification and Communication: A Problem and a Possible Solution, *Applied Linguistics 22* 195-212.

Baker, M. (2003). Arguing to Learn: Computer-Mediated Argumentative Interactions for the Co-Elaboration of Scientific Knowledge. In J. Andriessen M. Baker & D. Suthers (Eds.), *Arguing to Learn: Confronting Cognitions in Computer-Supported Collaborative Learning Environments*. Dordrecht The Netherlands: Kluwer Academic Publishers.

Bakhtin, M. (1981). Discourse in the Novel. In M. Holquist (Ed.), *The Dialogic Imagination*. Austin: University of Texas.

Bakhtin, M. (1984). *Problems of Dostoevsky's Poetics*. Manchester: Manchester University Press.

Bakhtin, M. (1986). *Speech Genres and Other Late Essays*. Austin: University of Texas Press.

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Baron, N. (1984). Computer Mediated Communication as a Force in Language Change. *Visible Language, XV111*(2), 118-141.

Baron, N. (1998). Letters by Phone or Speech by Other Means: The Linguistics of Email. *Language and Communication, 18,* 133-170.

Barton, D. (1991). The Social Nature of Writing. In D. Barton & R. Ivanic (Eds.), *Writing in the Community*. Newbury Park California: SAGE Publications Inc.

Baynham, M. (2000). Academic Writing in New and Emergent Discipline Areas. In M. Lea & B. Stierer (Eds.), *Student Writing in Higher Education*. Buckingham: Open University.

Bazerman, C. (1988). *Shaping Written Knowledge*. Wisconsin: University of Wisconsin Press.

Bereiter, C., & Scardamalia, M. (1987). *The Psychology of Written Composition*. Hillsdale NJ: Erlbaum.

Berkenkotter, C., & Huckin, T. (1995). *Genre Knowledge in Disciplinary Communication*. Hove, UK: Lawrence Erlbaum Associates.

Berry, M. (1995). Thematic Options and Success in Writing. In M. Ghadessy (Ed.), *Thematic Development in English Texts*. London: Pinter.

Berry, M. (1996). What Is Theme?- A(Nother) Personal View. In M. Berry C. Butler R. Fawcett & G. Huang (Eds.), *Meaning and Form: Systemic Functional Interpretations*. Norwood, N.J.: Ablex.

Biber, D. (1988). *Variations across Speech and Writing*. Cambridge: Cambridge University Press.

Biber, D. (1989). A Typology of English Text. *Linguistics, 27,* 3-43.

Biber, D., Conrad, S., & Leech, G. (2002). *Longman Student Grammar of Spoken and Written English*. Harlow England: Longman.

Billig, M. (1996). *Arguing and Thinking*. Cambridge: University of Cambridge.

Bloor, M., & Bloor, T. (1995). *The Functional Analysis of English: A Hallidayan Approach*. London: Arnold.

Bonk, C., & King, K. (1998). Computer Conferencing and Collaborative Writing Tools: Starting Dialogue about Student Dialogues. In C. Bonk & K. King (Eds.), *Electronic Collaborators: Learner-Centred Technologies for Literacy, Apprenticeship and Discourse*. Mahwah NJ: Lawrence Erlbaum Associates.

Brown, G., & Yule, G. (1983). *Discourse Analysis*. Cambridge: Cambridge University Press.

Brown, P., & Levinson, S. (1987). *Politeness: Some Universals in Language Usage*. Cambridge: Cambridge University Press.

Butler, C. (1990). Qualifications in Science: Modal Meanings in Scientific Texts. In W. Nash (Ed.), *The Writing Scholar. Studies in Academic Discourse* (Vol. 3). London: Sage Publications.

Butt, D., Fahey, R., Feez, S., Spinks, S., & Yallop, C. (1994). *Using Functional Grammar*. National Centre for English Language Teaching and Research, Macquarie University, Sydney, Australia.

Bygate, M. (1987). *Speaking*. Oxford: Oxford University Press.

Campbell, J., Smith, D., & Brooker, R. (1998). From Conception to Performance: How Undergraduate Students Conceptualise and Construct Essays. *Higher Education, 36*, 449-469.

Candlin, C., & Plum, G. (Eds.) (1998). *Researching Academic Literacies*. Macquarie University National Centre for English Language Teaching and Research, Sydney, Australia

Candlin, C., (1998). Researching Writing in the Academy: Participants, Texts, Processes and Practices. In C. Candlin & G. Plum (Eds.), *Researching Academic Literacies* Macquarie University National Centre for English Language Teaching and Research, Sydney, Australia.

Carter, L. (2003). Argument in Hypertext: Writing Strategies and the Problem of Order in a Nonsequential World. *Computers and Composition, 20*(1), 3-22.

Chafe, W. (1982). Integration and Involvement in Speaking. In D. Tannen (Ed.), *Spoken and Written Language*. Norwood, NJ: Ablex.

Chafe, W. (1985). Linguistic Differences Produced by Differences between Speaking and Writing. In D. Olsen N. Torrance & A. Hilyard (Eds.), *Literacy, Language and Learning: The Nature and Consequences of Reading and Writing*. New York: Cambridge University Press.

Chafe, W. (1986). Evidentiality in English Conversation and Academic Writing. In W. Chafe & J. Nichols (Eds.), *Evidentiality: The Linguistic Coding of Epistemology* (Vol. XX). Norwood, New Jersey: Ablex.

Chafe, W., & Danielewicz, J. (1987). Properties of Spoken and Written Language. In R. Horowitz & S. Samuels (Eds.), *Comprehending Oral and Written Language*, San Diego: Academic Press Inc.

Charoula, A., & Cunningham, D. (1998). Bubble Dialogue: Tools for Supporting Literacy. In C. Bonk & K. King (Eds.), *Electronic Collaborators*. Mahwah, NJ.: Erlbaum:

Chih-Hsiung, T., & Corry, M. (2001). A Paradigm Shift for Online Community Research. *Distance Education, 22*(2), 245-263.

Christie, F. (1999). *Pedagogy and the Shaping of Consciousness*. London: Continuum.

Cloran, C. (1995). Defining and Relating Text Segments: Subject and Theme in Discourse. In R. Hasan & P. Fries (Eds.), *On Subject and Theme: A Discourse Functional Perspective*. Amsterdam: John Benjamins.

Coates, J. (1983). *The Semantics of the Modal Auxiliaries*. London: Croom Helm.

Coffin, C. (1997). Constructing and Giving Value to the Past: An Investigation into Secondary School History. In F. Christie & J. Martin (Eds.), *Genre and Institutions. Social Practices in the Workplace and School*. London: Cassell.

Coffin, C., Hewings, A. & Painter, C. (2005) Engaging Electronically. *Language and Education 19*(1) 32-49

Cohen, L., & Manion, L. (1989). *Research Methods in Education* (3rd ed.). London: Routledge.

Coirier, P., Andriessen, J., & Chanquoy, L. (1999). From Planning to Translation: The Specificity of Argumentative Writing. In J. Andriessen & P. Coirier (Eds.), *Foundations of Argumentative Text Processing*. Amsterdam: Amsterdam University Press.

Collot, M., & Belmore, N. (1996). Electronic Language: A New Variety of English. In S. Herring (Ed.), *Computer-Mediated Communication: Linguistic, Social and Cross-Cultural Perspectives*. Amsterdam: John Benjamins.

Condon, S., & Čech, C. (1996). Functional Comparison of Face-to-Face and Computer Mediated Decision Making Interactions. In S. Herring (Ed.), *Computer-Mediated Communication: Linguistic, Social, and Cross-Cultural Perspectives*. Amsterdam: John Benjamins.

Conrad, D. (2002). Inhibition, Integrity and Etiquette among On-Line Learners: The Art of Niceness. *Distance Education, 23*(2), 197-212.

Cooper, D. (2001). *The Manager's Helpfile*. Milton Keynes: The Open University Business School.

Costello, P., & Mitchell, S. (Eds.) (1995). *Competing and Consensual Voices*. Clevedon: Multilingual Matters.

Crompton, P. (2002). *Theme in Argument Texts: An Appraisal Tool Applied and Appraised*. Unpublished Ph.D., University of Lancaster, Lancaster.

Crook, C. (1994). *Computers and the Collaborative Experience of Learning*. London: Routledge.

Crowhurst, M. & Piché, G. L. (1978). Audience and Mode of Discourse. Effects on Syntactic Complexity in Writing at Two Grade Levels. *Research in the Teaching of English, 13*, 101-109.

Curtis, D. (2001). Exploring Collaborative Online Learning. *JALN, 5*(1), 21-34.

Danĕs, F. (1974). Functional Sentence Perspective and the Organisation of Text. In F. Danĕs (Ed.), *Papers on Functional Sentence Perspectives*. The Hague: Mouton.

Davies, F. (1988). Reading between the Lines: Thematic Choices as a Device for Presenting Writer Viewpoint in Academic Discourse. *the ESPecialist, Sao Paulo, 9*(1/2), 173-200.

Davies, F. (1994). From Writer Roles to Elements of Text: Interactive, Organisational and Topical. In L. Barbara & M. Scott (Eds.), *Reflections on Language Learning*. Clevedon: Multilingual Matters.

Davies, F. (1997). Marked Theme as a Heuristic for Analysing Text-Type, Text and Genre. In P. Piqué & J. Viera (Eds.), *Applied Languages: Theory and Practice in E.S.P.* Valencia: Universitat de Valencia.

Davis, B., & Brewer, J. (1998). *Electronic Discourse: Linguistic Individuals in Virtual Space*. New York: State University of New York Press.

Davis, M., & Rouzie, A. (2002). *Cooperation Vs. Deliberation: Computer Mediated Conferencing and the Problem of Argument in International Distance Education*. Retrieved 13/05/2003, from the World Wide Web: http://www.irrodl.org/content/v3.1/davis.html

De Kerckhove, D. (1997). *Connected Intelligence: The Arrival of the Web Society*. Toronto: Somerville House.

Dearing, R. (1997). *Higher Education in the Learning Society. Report 2.* NCIHE/97/858: The National Committee of Enquiry into Higher Education.

Dewey, J. (1938). *Logic: The Theory of Enquiry.* New York: Henry Holt & Co.

Dias, P. (2000). Writing Classrooms as Activity Systems. In A. Paré (Ed.), *Transitions: Writing in Academic and Workplace Settings.* Cresskill, NJ: Hampton Press.

Dias, P., Freedman, A., Medway, P., & Paré, A. (1999). *Worlds Apart.* Mahwah, NJ: Lawrence Erlbaum.

Downing, A. (1991). An Alternative Approach to Theme: A Systemic-Functional Perspective. *Word, 42*(2), 119-143.

Eggins, S. (1994). *An Introduction to Systemic Functional Linguistics.* London: Pinter.

Eggins, S., & Martin, J. (1997). Genres and Registers of Discourse. In T. Van Dijk (Ed.), *Discourse as Structure and Process.* London UK: Sage.

Eggins, S., & Slade, D. (1997). *Analysing Casual Conversation.* London: Cassell.

Engestrom, Y. (2002). *The Activity System.* Retrieved, 2002, from the World Wide Web: http://www.edu.helsinki.fi/activity/6bO.htm.

Enkvist, N. (1973). "Theme Dynamics" and Style: An Experiment. *Studia Anglica Posnaniensia, 5,* 127-135.

Faigley, L. (1992). *Fragments of Rationality: Postmodernity and the Subject of Composition.* Pittsburgh Pa.: University of Pittsburgh Press.

Fairclough, N. (1989). *Language and Power.* London: Longman.

Fairclough, N. (1992). *Discourse and Social Change.* Oxford: Polity Press.

Fairclough, N., & Hardy, G. (1997). Management Learning as Discourse. In J. Burgoyne & M. Reynolds (Eds.), *Management Learning: Integrating Perspectives in Theory and Practice.* London: Sage Publications.

Fenton-O'Creevy, M., & Margolis, J. (2001). *Understanding Performance: Managing Performance and Change Block 1.* Milton Keynes: The Open University Business School.

Ferrara, K., Brunner, H., & Whittamore, G. (1991). Interactive Written Discourse as an Emergent Register. *Written Communication, 8*(1), 8-34.

Fielding, N. (1993). Qualitative Interviewing. In N. Gilbert (Ed.), *Researching Social Life*. London: Sage Publications.

Firbas, J. (1964). On Defining the Theme in Functional Sentence Analysis. *TLP, 1*, 267-280.

Firbas, J. (1992). Functional Sentence Perspective and Theme. In M. Davies & L. Ravelli (Eds.), *Advances in Systemic Linguistics*. London: Pinter Publishing.

Flower, L. (1995). *The Writing of Arguments across Diverse Contexts. Final Report.* Berkeley: National Center for the Study of Writing and Literacy. University of California.

Forey, G. (2002). *Aspects of Theme and Their Role in Workplace Texts.* Unpublished Ph.D., University of Glasgow, Glasgow.

Foster, P. (1996). *Observational Research. Data Collection and Analysis*. London: Sage & Open University.

Francis, G. (1990). Theme in the Daily Press. *Occasional Papers in Systemic Linguistics, 4*, 51-87. University of Sydney, Australia.

Freedman, A., & Medway, P. (1994). *Learning and Teaching Genre*. Portsmouth, NH: Boynton/Cook, Heinemann.

Freedman, A., & Pringle, I. (1984). Why Students Can't Write Argument. *English in Education, 18*(2), 73-84.

Fries, P. (1983). On the Status of Theme in English: Arguments from Discourse. *Forum Linguisticum 6*(1) 1-38, 1981. Reprinted in E. Sozer (Ed.), *Micro and Macro Connectivity of Texts*. Hambourg: Helmut Buske.

Fries, P. (1994). On Theme, Rheme and Discourse Goals. In M. Coulthard (Ed.), *Advances in Written Text Analysis*. London: Routledge.

Fries, P. (1995). Patterns of Information in Initial Position in English. In P. Fries M. Gregory (Eds.), *Discourse in Society: Systemic Functional Perspectives: Meaning and Choice in Language: Studies for Michael Halliday*. Norwood, N.J.: Ablex Publishing Corp.

Fries, P., & Francis, G. (1992). Exploring Theme: Problems for Research. *Occasional Papers in Systemic Linguistics, 6*, 45-60. University of Sydney

Fulkerson, R. (1996). The Toulmin Model of Argument. In B. Emmel & P. Resch (Eds.), *Argument Revisited; Argument Refined; Negotiating Meaning in the Composition Classroom*. Thousand Oaks: Sage.

Gackenbach, J. E. (1998). *Psychology and the Internet*. San Diego: Academic Press.

Gains, J. (1999). Electronic Mail. A New Style of Communication or Just a New Medium? *English for Specific Purposes, 18*, 81-101.

Garrison, D. (1985). Three Generations of Technological Innovation in Distance Education. *Distance Education, 6*(2), 235-241.

Garrison, D. (1997). Computer Conferencing: The Post-Industrial Age of Distance Education. *Open Learning, 12*(2), 3-11.

Giltrow, J. (2000). "Argument" as a Term in Talk About Student Writing. In S. Mitchell & R. Andrews (Eds.), *Learning to Argue in Higher Education*. Portsmouth NH: Boynton Cook.

Gimenez, J. (2000). Business E-Mail Communication: Some Emerging Tendencies in Register. *English for Specific Purposes, 19*, 237-251.

Gomez- Gonzales, M. (1997). An Alternative Analysis of Multiple Themes in Present-Day English. *Atlantis X1X, 2*, 135-160.

Goodfellow, R. Pettit, J. Lea, M., & Morgan, M. (2002). Students' Writing in the Virtual University: An Investigation into the Relation between Online Discussion and Writing for Assessment. In I. Snyder & C. Beavis (Eds.), *Re-Writing Literacy in a Network Society*. Cresskill NJ: Hampton Press.

Gosden, H. (1992). Discourse Functions of Marked Themes in Scientific Research Articles. *English for Specific Purposes, 11*, 207-224.

Gosden, H. (1993). Discourse Functions of Subject in Scientific Research Articles. *Applied Linguistics, 14*(1), 56-75.

Grice, J. (1975). Logic and Conversation. In P. Cole & J. Morgan (Eds.), *Syntax and Semantics (V3) Speech Acts*, New York: Academic Press.

Gruber, H. (2000). Theme and Intertextuality in Scholarly E-Mail Messages. *Functions of Language, 7*(1), 79-115.

Gunawardena, C., Lowe, C., & Anderson, T. (1997). Analysis of a Global Online Debate and the Development of an Interactive Analysis Model for Examining Social Construction of Knowledge in Computer Conferencing. *Journal of Educational Computing Research, 17*(4), 397-431.

Habermas, J. (1984). *The Theory of Communicative Action* (T. McCarthy, Trans.). London: Heinemann.

Halliday, M. (1967). Notes on Transitivity and Theme in English. *Journal of Linguistics, 3*, 177-274.

Halliday, M. (1973). *Explorations in the Function of Language*. London: Edward Arnold.

Halliday, M. (1978). *Language as Social Semiotic*. London: Arnold, E.

Halliday, M. (1985a). *An Introduction to Functional Grammar*. London: Edward Arnold.

Halliday, M. (1985b). *Spoken and Written Language*. Geelong Australia: Deakin University.

Halliday, M. (1988). On the Ineffability of Grammatical Categories. In J. Benson & W. Greaves (Eds.), *Systematic Perspectives in Discourse. Vol 1 Theoretical Papers from the 9th International Systemic Workshop*. New Jersey: Ablex.

Halliday, M. (1994). *An Introduction to Functional Grammar* (2nd ed.). London: Arnold.

Halliday, M., & Hasan, R. (1976). *Cohesion in English*. London: Longman.

Halliday, M., & Martin, J. (1993). *Writing Science: Literacy and Discursive Power*. London: Falmer Press.

Hammersley, M. (2003). Recent Radical Criticism of Interview Studies: Any Implications for the Sociology of Education? *British Journal of Sociology of Education, 24*(1), 119-126.

Hammersley, M., & Atkinson, A. (1995). *Ethnography. Principles in Practice* (2nd Edition). London: Routledge.

Hammond, M. (2000). Communication within On-Line Forums: The Opportunities, the Constraints and the Value of a Communicative Approach. *Computers & Education, 35*(4), 251-262.

Hammond, N., & Bennet, C. (2002). Discipline Differences in Role and Use of ICT to Support Group-Based Learning. *Journal of Computer Assisted Learning, 18*, 55-63.

Hara, N., Bonk, C., & Charoula, A. (2000). Contents Analysis of On-Line Discussion in an Applied Educational Psychology. *Instructional Science, 28*(2), 115-152.

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Harasim, L., Hiltz, S., Teles, L., & Turoff, M. (1995). *Learning Networks: A Field Guide to Teaching and Learning On Line*. Cambridge, Massachusetts: MIT Press.

Harwood, N. (2005). 'I Hoped to Counteract the Memory Problem, but I Made No Impact Whatsoever'. *English for Specific Purposes, 24*, 243-267.

Hasan, R., & Fries, P. (1995). On Subject and Theme. A Discourse Functional Perspective. In R. Hasan & P. Fries (Eds.), *On Subject and Theme. A Discourse Functional Perspective* (Vol. 118). Amsterdam: John Benjamins North America.

Hayes, J., & Flower, L. (1980). Identifying the Organisation of Writing Processes. In L. Gregg & E. Steinberg (Eds.), *Cognitive Process in Writing*. Hillsdale, NJ: Erlbaum.

Henri, F. (1992). *Computer Conferencing and Context Analysis*. Paper presented at the NATO Advanced Research Workshop on Collaborative Learning and Computer Conferencing, Copenhagen, Denmark.

Henri, F. (1995). Distance Learning and Computer-Mediated Communication: Interactive. Quasi-Interactive or Monologue? In C. O'Malley (Ed.), *Computer Supported Collaborative Learning*. Berlin New York: Springer Verlag.

Herring, S. (1996). Two Variants of an Electronic Message Schema. In S. Herring (Ed.), *Computer-Mediated Communication. Linguistic, Social and Cross-Cultural Perspectives*. Amsterdam: John Benjamins.

Herring, S. (1999). Interactional Coherence in CMC. *Journal of Computer-Mediated Communication, 4*(4). Special issue on Persistent Conversation, T. Erickson (Ed.), retrieved from the World Wide Web 9/10/2004 https://www.ascusc.org/JCMC/vol4/issue4

Herring, S. (2004). Slouching toward the Ordinary: Current Trends in Computer-Mediated Communication. *new media & society, 6*(1), 26-36.

Hewings, A. (1999). *Disciplinary Engagement in Undergraduate Writing: An Investigation of Clause Initial Elements in Geography Essays*. Unpublished Ph.D., University of Birmingham, Birmingham.

Hewings, A. (2004). Grammar in the Construction of On-Line Discussion Messages. In C. Coffin A. Hewings & K. O'Halloran (Eds.), *Applying English Grammar: Functional and Corpus Approaches*. London: Hodder.

Hewings, A., & Hewings, M. (2001). Anticipatory "It" in Academic Writing: An Indicator of Disciplinary Difference and Developing Disciplinary Knowledge.

In M. Hewings (Ed.), *Academic Writing in Context*. Birmingham: University of Birmingham Press.

Hewings, A., & Hewings, M. (2002). "It Is Interesting to Note That..": A Comparative Study of Anticipatory 'It' in Student and Published Writing. *English for Specific Purposes, 21*(4), 367-383.

Hewings, M. (1999). The Academy Meets the Real World: Response to Audience in Academic Writing. In M. Hewings & C. Nickerson (Eds.), *Business English: Research into Practice*. Harlow U.K.: Pearson Education Ltd.

Hewitt, J., Scardamalia, M., & Webb, J. (2002). *Situative Design Issues for Interactive Learning Environments: The Problem of Group Coherence.* http://csile.iose.utoronto.ca/abstracts/situ_design/. Retrieved 22/05/2002, from the World Wide Web:

Hoadley-Maidment, E. (1997). From 'Story' to Argument: The Acquisition of Academic Writing Skills in an Open - Learning Context. *Language and Education, 11*(1), 55-68.

Hockett, C. (1958). *A Course in Modern Linguistics*. New York: Macmillan.

Hodge, R., & Kress, G. (1988). *Social Semiotics*. Oxford: Basil Blackwell.

Hoey, M. (1983). *On the Surface of Discourse*. London: George Allen and Unwin.

Howe, C., & Tolmie, A. (1999). Productive Interaction in the Context of Computer-Supported Collaborative Learning in Science. In K. Littleton & P. Light (Eds.), *Learning with Computers: Analysing Productive Interaction*. London: Routledge.

Howell-Richardson, C., & Mellor, H. (1996). A Methodology for Analysis of Patterns of Participation within Computer-Mediated Communication Courses. *Instructional Science, 24*, 47-69.

Huddleston, R., Hudson, R., & Winter, E. (1968). *Sentence and Clause in Scientific English. (Osti Research Report)*. London: Department of General Linguistics, University of London.

Hunston, S. (1989). *Evaluation in Experimental Research Articles*. Unpublished Ph.D.,University of Birmingham, Birmingham.

Hunston, S. (1991). Interpersonal Metaphor: Modality in Academic and Non-Academic Registers. Unpublished paper, Department of Linguistics and English Language, School of Humanities, University of Sussex, Falmer, U.K.

Hunston, S. (1993a). Evaluation and Ideology in Scientific Writing. In M. Ghadessy (Ed.), *Register Analysis: Theory and Practice*. London: Pinter.

Hunston, S. (1993b). Projecting a Sub-Culture: The Construction of Shared Worlds by Projecting Clauses in Two Registers. In D. Graddol L. Thompson & M. Byram (Eds.), *Language and Culture*. Clevedon: BAAL and Multilingual Matters.

Hunston, S. (1994). Evaluation and Organisation in a Sample of Written Academic Discourse. In M. Coulthard (Ed.), *Advances in Written Text Analysis*. London: Routledge.

Hunston, S. (2000). Evaluation and the Planes of Discourse. In S. Hunston & G. Thompson (Eds.), *Evaluation in Text: Authorial Stance and the Construction of Discourse*. Oxford: Oxford University Press.

Hunston, S., & Thompson, G. (2000). *Evaluation in Text: Authorial Stance and the Construction of Discourse*. Oxford: Oxford University Press.

Hunt, K. (1965). *Grammatical Structures Written at Three Grade - Levels*. Champaign IL: NCTE.

Hyland, K. (1996). Writing without Conviction? Hedging in Science Research Articles. *Applied Linguistics, 17*(4), 433-454.

Hyland, K. (1999). Disciplinary Discourses: Writer Stance in Research Articles. In C. Candlin & K. Hyland (Eds.), *Writing: Texts Processes, and Practices*. Harlow: Longman.

Hyland, K. (2000). *Disciplinary Discourses: Social Interactions in Academic Writing*. London: Longmans.

Hyland, K. (2002a). Authority and Invisibility: Pronouns of Authorial Identity in Academic Writing. *Journal of Pragmatics*.

Hyland, K. (2002b). Directives: Argument and Engagement in Academic Writing. *Applied Linguistics, 23*(2), 215-237.

Iedema, E. (1998). Institutional Responsibility and Hidden Meanings. *Discourse and Society, 9*(4), 481-500.

Iedema, E. (1999). Formalizing Organizational Meaning. *Discourse and Society, 10*(1), 49-65.

Iedema, E. (2000). Bureaucratic Planning and Resemiotisation. In E. Ventola (Ed.), *Discourse and Community* (pp. 47-69). Tubingen: Narr.

Ivanic, R. (1997). *Writing and Identity: The Discoursal Construction of Identity in Academic Writing.* Amsterdam: John Benjamins.

Johnson, C., Barth, E., & Van Eemeren, F. (1991). Argumentation. *Communication and Cognition, 24*(1), 15-24.

Johnson, R. (1996). *The Rise of Informal Logic: Essays in Argumentation, Critical Thinking, Reasoning and Politics.* Newport: Vale Press.

Jones, A., Scanlon, E., & Blake, C. (2000). Conferencing in the Community of Learners: Examples from Social History and Science Communication. *Educational Technology and Science, 3*(3), 20.

Jones, C., Turner, J., & Street, B. (Eds) (1999). *Students Writing in the University: Cultural and Epistemological Issues*, Amsterdam: John Benjamin.

Kear, K. (2001). Following the Thread in Computer Conferences. *Computers & Education, 37*(1), 81-99.

Kelly, B., & Bazerman, C. (2003). How Students Argue Scientific Claims: A Rhetorical-Semantic Analysis. *Applied Linguistics, 24*(1), 28-55.

Khan, B. (1997). *Web-Based Instruction.* Englewood Cliffs New Jersey 07632: Educational Technology Publications.

Koschmann, T. (2003). CSCL, Argumentation and Deweyan Inquiry. In J. Andriessen M. Baker & D. Suthers (Eds.), *Arguing to Learn. Confronting Cognitions in Computer-Supported Collaborative Learning Environments.* Dordrecht Netherlands: Kluwer Academic Publishers.

Kress, G. (1986). Reading Writing and Power. *Applied Linguistics Association of Australia, 9*, 98-117.

Kress, G. (2000a). Design and Transformation: New Theories of Meaning. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies.* London & New York: Routledge.

Kress, G. (2000b). Text as the Punctuation of Semiosis: Pulling at Some of the Threads. In U. Meinhof & J. Smith (Eds.), *Intertextuality?* Manchester: Manchester University Press.

Lally, V., & Barrett, E. (1999). Building a Learning Community On-Line: Towards Socio-Academic Interaction. *Research Papers in Education., 14*(2), 147-163.

Laurillard, D. (1993). *Rethinking University Teaching: A Framework for Effective Use of Educational Technology.* London: Routledge.

Lave, J., & Wenger, E. (1991). *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.

Lea, M. (1994). "I Thought I Could Write until I Came Here"; Student Writing in Higher Education. In G. Gibbs (Ed.), *Improving Student Learning: Legitimate Peripheral Participation*. Oxford: Oxford Centre for Staff Development.

Lea, M. (1999). Academic Literacies and Learning in Higher Education. In C. Jones J. Turner & B. Street (Eds.), *Students Writing in the University: Cultural and Epistemological Issues*. Amsterdam: John Benjamin.

Lea, M. (2001). Computer Conferencing and Assessment: New Ways of Writing in Higher Education. *Studies in Higher Education, 26*(2), 163-181.

Lea, M. (2002). The New Literacy Studies, ICTs and Learning in Higher Education. In I. Snyder & C. Beavis (Eds.), *Rewriting Literacy in the Network Society*: Cresskill NJ: Hampton Press.

Lea, M., & Nicoll, K. (Eds.) (2002). *Distributed Learning*. London: Routledge Falmer.

Lea, M., & Street, B. (1999). Writing as Academic Literacies. In C. Candlin & K. Hyland (Eds.), *Writing: Texts, Processes, and Practices*. Harlow: Longman.

Leech, G. (1981). *Semantics: The Study of Meaning (2nd Ed)*. London: England.

Lillis, T. (2001). *Student Writing: Access, Regulation, Desire*. London: Routledge.

Lillis, T., & Turner, J. (2001). Student Writing in Higher Education: Contemporary Confusion, Traditional Concerns. *Teaching in Higher Education, 6*(1), 57-68.

Littleton, K., & Light, P. (1999). *Learning with Computers: Analysing Productive Interaction*. London: Routledge.

Lukhele, G. (2004). *Academic Writing in Global Distance Learning: Case Studies of an MBA Programme in Ethiopia, Russia and the U.K.*, Unpublished M.Phil., The Open University, Milton Keynes.

Lyons, J. (1977). *Semantics* (Vol. 1, 2). Cambridge: Cambridge University Press.

Martin, J. (1986). Intervening in the Process of Writing Development. In C. Painter & J. Martin (Eds.), *Occasional Papers Number 9* 11-43. *Applied Linguistics Association of Australia Conference Papers 'Writing to Mean'* University of Sydney 1985. Applied Linguistics Association of Australia: Sydney

Martin, J. (1992a). *English Text: System and Structure*. Amsterdam: John Benjamins.

Martin, J. (1992b). Theme, Method of Development and Existentiality: The Price of Reply. *Occasional Papers in Systemic Linguistics, 6,* 147-184. University of Sydney Department of Linguistics, Sydney, Australia.

Martin, J. (1993). Life as a Noun: Arresting the Universe in Science and Humanities. In M. Halliday & J. Martin (Eds.), *Writing Science: Literacy and Discursive Powers.* London: The Falmer Press.

Martin, J. (1995a). More Than What the Message Is About: English Theme. In M. Ghadessy (Ed.), *Thematic Development in English Text.* London: Pinter.

Martin, J. (1995b). Text and Clause: Fractal Resonance. *Text, 15*(1), 5-42.

Martin, J. (2000). Beyond Exchange: Appraisal Systems in English. In S. Hunston & G. Thompson (Eds.), *Evaluation in Text: Authorial Stance and the Construction of Discourse.* Oxford: Oxford University Press.

Martin, J. (2001). Language, Register and Genre. In A. Burns & C. Coffin (Eds.), *Analysing English in a Global Context.* London New York: Routledge.

Martin, J., & Painter, C. (1986). Writing to Mean: Teaching Genres across the Curriculum. *Applied Linguistics Association of Australia, 9.*

Martin, J., Matthiessen, C., & Painter, C. (1997) *Working with Functional Grammar.* Arnold: London

Martin, J., & Rose, D. (2003). *Working with Discourse:Meaning Beyond the Clause.* London: Continuum.

Martin, J., & Rothery, R. (1981). *The Ontogenesis of Written Genres* (Vol. No. 2). Sydney: Department of Linguistics, University of Sydney, Australia.

Martin, J., & Veel, R. (1998). *Reading Science: Critical and Functional Perspectives on Discourses of Science.* London: Routledge.

Martin, J. (1989). *Factual Writing: Exploring and Challenging Social Reality.* Victoria: Deakin University Australia

Marttunen, M., & Laurinen, L. (2001). Learning of Argumentation Skills in Networked and Face to Face Environments. *Instructional Science, 29*(2), 127-153.

Mathesius, V. (1939). Otak Zvanem Aktualnim Vetnem. *Slovo a slovesnost, 5,* 171-174.

Matthiessen, C. (1992). Interpreting the Textual Metafunction. In M. Davies & L. Ravelli (Eds.), *Advances in Systemic Linguistics: Recent Theory and Practice*. London: Pinter.

Matthiessen, C. (1995). Theme as an Enabling Resource in Ideational "Knowledge" Construction. In M. Ghadessy (Ed.), *Thematic Development in English Texts*. London: Pinter Publishers.

Mauranen, A. (1993). Theme and Prospection in Written Discourse. In M. Baker G. Francis & E. Tognini-Bonelli (Eds.), *Text and Technology. In Honour of John Sinclair*. Philadelphia/Amsterdam: John Benjamins.

Mauranen, A. (1996). Discourse Competence-Evidence from Thematic Development in Native and Non-Native Texts. In E. Ventola (Ed.), *Academic Writing: Intercultural and Textual Issues*. Amsterdam: John Benjamins.

McConnell, D. (1994). Managing Open Learning in Computer Supported Collaborative Learning Environments. *Studies in Higher Education, 19*(3), 341-358.

McCormick, R., & Scrimshaw, P. (2001). Information and Communications Technology: Knowledge and Pedagogy in Education. *Communication and Information, 1*(1), 37-57.

McKenna, B. (1997). How Engineers Write: An Empirical Study of Engineering Report Writing. *Applied Linguistics, 18*(2), 189-211.

Mercer, N. (1995). *The Guided Construction of Knowledge: Talk Amongst Teachers and Learners*. Clevedon: Multilingual Matters.

Mercer, N. (1996). The Quality of Talk in Children's Collaborative Activity in the Classroom. *Learning and Instruction, 6*(4), 359-379.

Mercer, N. (2000). *Words and Minds*. London: Routledge.

Mercer, N., Wegerif, R., & Dawes, L. (1999). Childen's Talk and the Development of Reasoning in the Classroom. *British Educational Research Journal, 25*(1), 95-109.

Mitchell, S. (1994). *The Teaching and Learning of Argument in Sixth Forms and Higher Education* (Final). Hull: School of Education Centre for Studies in Rhetoric University of Hull.

Mitchell, S. (2000). Putting Argument into the Mainstream. In S. Mitchell & R. Andrews (Eds.), *Learning to Argue in Higher Education*. Portsmouth NH: Boynton Cook.

Mitchell, S., & Andrews, R. (Eds.) (2000). *Learning to Argue in Higher Education*. Portsmouth NH: Boynton/Cook.

Mitchell, S., & Riddle, M. (Eds.) (2000). *Improving the Quality of Argument in Higher Education*. London: School of Lifelong Learning and Education. Middlesex University, Trent Park.

Montemayor-Borsinger, A. (1999). Research Articles in Science: A Comparative Study of Linguistic Choices. In H. Bool & P. Luford (Eds.), *Academic Standards and Expectations: The Role of English for Academic Purposes*. Nottingham: Nottingham University Press U.K.

Moran, C., & Hawisher, G. (1998). The Rhetoric and Languages of Electronic Mail. In I. Snyder (Ed.), *Page to Screen: Taking Literacy into the Electronic Era*. London: Routledge.

Morgan, M. (1996). *Rhetorical Interaction in an Email Discussion: A Case Study of a First-Year Writing Class*. Unpublished Ph.D., Bowling Green State University, Bowling Green Ohio.

Morgan, M. (2001). *Students Writing in the Virtual University*. Retrieved 12/6/2001, from the World Wide Web: http://iet.open.ac.uk/pp/r.goodfellow/SWIVU/Discussion.htm

Mulholland, J. (1999). Email: Uses, Issues and Problems in an Institutional Setting. In F. Bargiela-Chiappini & C. Nickerson (Eds.), *Genres, Media and Discourses*. Harlow: Pearson.

Murray, D. (1988). The Context of Oral and Written Language: A Framework for Mode and Media Switching. *Language in Society, 17*, 351-373.

Murray, D. (2000). Protean Communication: The Language of Computer-Mediated Communication. *TESOL Quarterly, 34*(3), 397-421.

Myers, G. (1985). The Social Construction of Two Biologists' Proposals. *Written Communication*(2/3), 219-245.

Myers, G. (1989). The Pragmatics of Politeness in Scientific Articles. *Applied Linguistics, 10*(1), 1-35.

Myers, G. (1990). *Writing Biology: Texts in the Construction of Scientific Knowledge*. Madison, Wisconsin: The University of Wisconsin Press.

Myers, G. (1999). Interaction in Writing: Principles and Problems. In C. Candlin & K. Hyland (Eds.), *Writing: Texts, Processes and Practices*. Harlow: Addison Wesley Longman.

Myers, G. (2001). 'In My Opinion': The Place of Personal Views in Undergraduate Essays. In M. Hewings (Ed.), *Academic Writing in Context*. Birmingham: The University of Birmingham Press.

Ninio, A., & Bruner, J. (1978). The Achievement and Antecedents of Labelling. *Journal of Child Language, 5*, 1-15.

North, S. (2003). *Emergent Disciplinarity in an Interdisciplinary Course: Theme Use in Undergraduate Essays in the History of Science*. Unpublished Ph.D., Open University, Milton Keynes.

Northedge, A. (2001). Organizing Excursions into Specialist Discourse Communities: A Sociocultural Account of University Teaching. In G. Wells & G. Claxton (Eds.), *Learning for Life in the Twenty-First Century: Sociocultural Perspectives on the Future of Education*. London: Blackwell.

Palmer, F. (1979). *Modality and the English Modals*. London: Longman.

Palmer, F. (2001). *Mood and Modality*. Cambridge: Cambridge University Press.

Paltridge, B. (1996). Genre, Text-Type, and the Language Learning Classroom. *English Language Teaching, 50*(3), 237-243.

Peck MacDonald, S. (1992). A Method of Analyzing Sentence-Level Differences in Disciplinary Knowledge Making. *Written Communication, 9*(4), 533-569.

Peng, W. (1997). Keywords in Theme and Rheme. *Language and Discourse, 5*, 43-69

Perkins, M. (1983). *Modal Expressions in English*. London: Frances Pinter.

Ping, A. (2003). Theme as Constraining Force. *Journal of Language and Linguistics, 2*(2).

Prior, P. (1994). Response, Revision, Disciplinarity: A Micro-History of a Dissertation Prospectus in Sociology. *Written Communication, 11*, 483-533.

Prior, P. (1995). Redefining the Task: An Ethnography of Writing and Response in Graduate Seminars. In D. Belcher & G. Braine (Eds.), *Academic Writing in a Second Language: Essays on Research and Pedagogy*. Norwood: Ablex Publishing.

Prior, P. (1998). *Writing/Disciplinarity: A Sociohistoric Account of Literate Activity in the Academy*. London: Erlbaum.

Prior, P. (2005). Toward an Ethnography of Argumentation: A Response to Richard Andrews' 'Models of Argumentation in Educational Discourse'. *Text, 25*(1), 129-144.

Prosser, M., & Webb, C. (1994). Relating the Process of Undergraduate Essay Writing to the Finished Product. *Studies in Higher Education, 19*(2), 125-137.

Ravelli, L. (1995). A Dynamic Perspective: Implications for Metafunctional Interaction and an Understanding of Theme. In R. Hasan & P. Fries (Eds.), *On Subject and Theme: A Discourse Functional Perspective*. Amsterdam: John Benjamins.

Ravelli, L. (2000). Familiar Territory, Shifting Grounds: Aspects of Organisation in Written Texts, *Conference paper, International Systemic Functional Conference, University of Melbourne, July 2000*. Melbourne, New South Wales, Australia.

Reid, I. (1998) Framing Student Literacies: A Project Overview. In C. Candlin & G. Plum (Eds.) *Researching Academic Literacies* Macquarie University National Centre for English Language Teaching and Research, Sydney, Australia.

Riddle, M. (2000). Improving Argument by Parts. In S. Mitchell & R. Andrews (Eds.), *Learning to Argue in Higher Education*. Portsmouth, NH: Boynton/Cook.

Rogoff, R. (1990). *Apprenticeship in Thinking: Cognitive Development in Social Thinking*. New York: Oxford University Press.

Rose, D. (2001). Some Variations in Theme across Languages. *Functions of Language, 8*(1), 109-145.

Rowntree, D. (1995). Teaching and Learning On-Line: A Correspondence Education for the 21st Century? *British Journal of Educational Technology, 26*(3), 205-215.

Russell, D. (2002). *Rethinking Genre in School and Society: An Activity Theory Analysis*. http://www.public.iastate.edu/~drrussel/at&genre.html. Retrieved 12 December, 2002, from the World Wide Web:

Salmon, G. (1998). Developing Learning through Effective Online Moderation. *Active Learning, 9*, 3-8.

Salmon, G. (2000). Computer Mediated Conferencing for Management Learning at the Open University. *Management Learning, 31*(4), 491-502.

Scardamalia, M., & Bereiter, C. (1994). Development of Dialectical Processes in Composition. In B. Stierer & J. Maybin (Eds.), *Language, Literacy and Learning in Educational Practice*. Clevedon, Avon: Multilingual Matters.

Scott, M. (1999). Agency and Subjectivity in Student Writing. In C.Jones J Turner & B. Street. (Eds.), *Students Writing in the University: Cultural and Epistemological Issues*. Amsterdam: John Benjamins.

Searle, J. (1969). *An Essay in the Philosophy of Language*. Cambridge: Cambridge University Press.

Segerstad, Y. (2002). *Use and Adaption of Written Language to the Conditions of Computer-Mediated Communication*. Unpublished Ph.D.,Goteborg University, Goteborg, Sweden.

Sherblom, J. (1988). Direction, Function, and Signature in Electric Mail. *The Journal of Business Communication, 25*(4), 39-55.

Simpson, P. (1990). Modality in Literary-Critical Discourse. In W. Nash (Ed.), *The Writing Scholar*. London: Sage Publication.

Sinclair, J. (1982). The Planes of Discourse. In S. Rizvi (Ed.), *The Two-Fold Voice: Essays in Honour of Ramesh Mohan*. New Delhi: Pitambar Publishing Company.

Sinclair, J. (1985). On the Integration of Linguistic Description. In T. Van Dijk (Ed.), *Handbook of Discourse Analysis: Dimensions of Discourse* (Vol. 2). London: Academic Press Harcourt Brace Jovanovich.

Sinclair, J. (1992). Trust the Text. In M. Davies & L. Ravelli (Eds.), *Advances in Systemic Linguistics*. London: Pinter Publishers.

Sinclair, J. (1993). Written Discourse Structure. In J. Sinclair M. Hoey & G. Fox (Eds.), *Techniques of Description: Spoken and Written Discourse*. London: Routledge.

Smithson, S., & Diaz, F. (1996). Arguing for a Collective Voice: Collaborative Strategies in Problem-Solving Conversation. *Text, 16*(2), 251-268.

Snyder, I. (1998). *Page to Screen*. London New York: Routledge.

Snyder, I. (2002). Rewriting Literacy in the Network Society. In I. Snyder & C. Beavis (Eds.), *Rewriting Literacy in the Network Society*. Cresskill NJ: Hampton Press.

Street, B. (1984). *Literacy in Theory and Practice*. Cambridge: Cambridge University Press.

Stubbs, M. (1996). *Text and Corpus Analysis: Computer-Assisted Studies of Language and Culture*. London: Blackwell Publishers.

Sturges, J., & Hanrahan, K. (2004). Comparing Telephone and Face-to-Face Interviewing: A Research Note. *Qualitative Research, 4*(1), 107-118.

Swales, J. (1990). *Genre Analysis*. Cambridge: Cambridge University Press.

Swales, J., Ahmad, U., Chang, Y., Chavez, D., Dressen, D., & Seymour, R. (1998). Consider This: The Role of Imperatives in Scholarly Writing. *Applied Linguistics, 19*(1), 97-121.

Tang, R., & John, S. (1999). The 'I' in Identity: Exploring Writer Identity in Student Academic Writing through the First Person Pronoun. *English for Specific Purposes, 18*, 323-339.

Thetela, P. (1995). Writer Responsibility in Written Discourse: A Pilot Investigation into Signalling Writer Commitment to Evaluation in Academic Research Articles. *Liverpool Working Papers in Applied Linguistics. 1* 43-73. School of English, Liverpool University, UK.

Thetela, P. (1997a). Evaluated Entities and Parameters of Value in Academic Articles. *English for Specific Purposes, 16*(2), 101-118.

Thetela, P. (1997b). *Evaluation in Academic Research Articles*. Unpublished Ph.D., University of Liverpool, Liverpool.

Thompson, G. (1996). *Introducing Functional Grammar*. London: Arnold.

Thompson, G. (2001). Interaction in Academic Writing: Learning to Argue with the Reader. *Applied Linguistics, 22*(1), 58-78.

Thompson, G., & Thetela, P. (1995). The Sound of One Hand Clapping: The Management of Interaction in Written Discourse. *Text, 15*(1), 103-127.

Thompson, G., & Ye, Y. (1991). Evaluation in the Reporting Verbs Used in Academic Papers. *Applied Linguistics, 12*(4), 365-382.

Thompson, G., & Zhou, J. (2000). Evaluation and Organisation in Text: The Structuring Role of Evaluative Disjuncts. In S. Hunston & G. Thompson (Eds.), *Evaluation in Text: Authorial Stance and the Construction of Discourse*. Oxford: Oxford University Press.

Toulmin. (1958). *The Uses of Argument*. Cambridge: Cambridge University Press.

Toulmin, S., Rieke, R., & Janik, A. (1979). *An Introduction to Reasoning*. New York: Macmillan.

Toulmin, S., Rieke, R., & Janik, A. (1984). *An Introduction to Reasoning 2nd Ed.* London: Collier Macmillan.

Tredennick, H., & Forster, E. (1966). *Aristotle Posterior Analytics Topica*. London: Heineman.

Turkle, S. (1995). *Life on the Screen: Identity in the Age of the Internet*. New York: Simon & Schuster.

Turner, J. (2003). Academic Literacy in Post-Colonial Times. *Language and Inter-Cultural Communication, 3*(3), 187-197.

Turoff, M., Hiltz, S., & Bieber, M. (1999). Collaborative Discourse Structures in Computer Mediated Group Communication. *Journal of Computer Mediated Communication, 4*(4), 1-17.

Uhlířová, L. (1994). E-Mail as a New Subvariety of Medium and Its Effects Upon the Message. In S. Čmerjrková & F. Štìcha (Eds.), *The Syntax of Sentence and Text: A Festschrift for Frantisek Daněs*. Amsterdam: John Benjamins.

Van Eemeren, F., & Grootendorst, R. (1984). *Speech Acts in Argumentative Discussion*. Dordrecht Holland Cinnaminson U.S.A.: Foris Publications.

Van Eemeren, F., & Grootendorst, R. (1992). *Argumentation, Communication and Fallacies*. Hillsdale New Jersey: Lawrence Erlbaum.

Van Eemeren, F., Grootendorst, R., Jackson, S., & Jacobs, S. (1993). *Reconstructing Argumentative Discourse*. Tuscaloosa Alabama: The University of Alabama.

Van Eemeren, F., Grootendorst, R., Jackson, S., & Jacobs, S. (1997). Argumentation. In T. Van Dijk (Ed.), *Discourse as Structure and Process*. London: Sage Publications.

Van Eemeren, F., & Hootlosser, P. (1999). Strategic Manoeuvring in Argumentative Discourse. *Discourse Studies, 1*(4), 479-497.

Vande Kopple, W. (1991). Themes, Thematic Progressions, and Some Implications for Understanding Discourse. *Written Communication, 8*(3), 311-347.

Veerman, A. (2000). *Computer Supported Collaborative Learning through Argumentation*. Utrecht: Univeriteit Utrecht.

Veerman, A. (2003). Constructive Discussions through Electronic Dialogue. In J. Andriessen M. Baker & D. Suthers (Eds.), *Arguing to Learn: Confronting Cognitions in Computer -Supported Collaborative Learning Environments*. Dordrecht The Netherlands: Kluwer Academic Publishers.

Volet, S., & Wosnitza, M. (2004). Social Affordances and Students' Engagement in Cross-National Online Learning. *Journal of Research in International Education, 3*(1), 5-29.

Vygotsky, L. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Cambridge MA: Harvard University Press.

Vygotsky, L. (1986). *Thought and Language*. Cambridge MA: M.I.T. Press.

Wales, D. (1999). *Theoretical Bondage: Argumentation Analysis and Higher-Order Goals*. Paper presented at the OSSA Conference 'Argumentation at the Century's Turn', Trent University, Ontario Canada.

Wallace, P. (1999). *The Psychology of the Internet*. Cambridge: Cambridge University Press.

Walton, D. (1989). *Informal Logic: A Handbook for Critical Argumentation*. Cambridge: Cambridge University Press.

Walton, D. (1998). *The New Dialectic*. Toronto: University of Toronto.

Walton, D. (1999). *The Importance of Dialogue Theory at the Century's Turn*. Paper presented at the OSSA Conference 'Argumentation at the Century's Turn', Trent University, Ontario Canada.

Wegerif, R. (1997). *Reason and Difference: A Dialogical Alternative to Piaget and Vygotsky*: CLAC Occasional Papers in Communication, 60, October 1997. Centre for Language and Communication, Faculty of Education, Open University, Milton Keynes, U.K.

Wegerif, R., & Mercer, N. (1996). Computers and Reasoning through Talk in the Classroom. *Language and Education, 10*(1), 47-61.

Wegerif, R., & Mercer, N. (1997). Using Computer-Based Analysis to Integrate Qualitative and Quantitative Methods in Research on Collaborative Learning. *Language and Education, 2*(4), 271-286.

Wegerif, R., Mercer, N., & Dawes, L. (1999). From Social Interaction to Individual Reasoning: An Empirical Investigation of a Possible Sociocultural Model of Cognitive Development. *Learning and Instruction, 9*(6), 493-516.

Werry, C. (1996). Linguistic and Interactional Features of Internet Relay Chat. In S. Herring (Ed.), *Computer-Mediated Communication: Linguistic, Social and Cross-Cultural Perspectives*. Amsterdam: Benjamins.

Wertsch, J. (1991). *Voices of the Mind: A Sociocultural Approach to Mediated Action*. Cambridge MA: Harvard University Press.

Whittaker, R. (1995). Thematic Processes and the Realization of Meaning in Academic Articles. In M. Ghadessy (Ed.), *Thematic Development in English Texts*. London: Pinter.

Widdowson, H. (1984). *Explorations in Applied Linguistics 2*. Oxford: Oxford University Press.

Wilkins, H. (1991). Computer Talk. *Written Communication, 8*(1), 56-78.

Wilkinson, A. (1990). Argument as a Primary Act of Mind. *English in Education, 24*(1).

Willard, C. (1982). Argument Fields. In J. Cox & C. Willard (Eds.), *Advances in Argumentation Theory and Research*. Carbondale Il.: Southern Illinois University Press.

Wilson, M. (1996). Asking Questions. In R. Sapsford & V. Jupp (Eds.), *Data Collection and Analysis*. London: Sage & Open University.

Winter, E. (1994). Clause Relations as Information Structure: Two Basic Text Structures in English. In M. Coulthard (Ed.), *Advances in Written Text Analysis*. London: Routledge.

Yates, S. (1993). *The Textuality of Computer-Mediated Communication: Speech, Writing and Genre in CMC Discourse*. Unpublished Ph.D., The Open University, Milton Keynes.

Yates, S. (1996). Oral and Written Linguistic Aspects of Computer Conferencing: A Corpus-Based Study. In S. Herring (Ed.), *Computer-Mediated Communication: Linguistic, Social and Cross-Cultural Perspectives*. Amsterdam: John Benjamins.

Appendix 1:   Tutor Marked Assignment Questions

TMA01

All Question 1 responses are posted by the students to the student small group conferences and all Question 2 and 3 single-authored assignments are sent via a secure electronic TMA system

The on-line discussion question:

Question 1

(answer through your tutor conference)

Consider the part of the organisation in which you work. This may be a department or some other sub-unit: perhaps the part of the organisation managed by the person you report to.

A

- Summarise the following information in *no more than 600 words* and post it to your on-line conference:

- Outline the main ways in which performance is judged in the organisation or part of the organisation in which you work.

- State who receive this information and what kind of actions are taken in response to it.

- Indicate which performance measures are given most emphasis and how this affects the judgement of performance. (15 marks)

B

Based on the contributions posted on your on-line conference from Question 1(A), discuss how ideas of performance vary between your organisation and those of the other students in your conference. From what you have read in the course so far, give your opinion of what lies behind these differing conceptions. For example, you may wish to classify the ways of judging performance in terms of finance, operations, marketing and people.

Your tutor will allocate you to a sub-group for the purposes of this discussion and offer guidance on how to conduct it appropriately. (15 marks)

The single-authored assignment question:

Question 2 (submit through the electronic TMA system)

Write a report of no more than 2,500 words which addresses the following two questions:

A

Drawing on what others in your tutor sub-group have posted, compare your organisation to one other. It will undoubtedly be useful to contact your fellow student for further information about the other organisation. Describe the main differences and similarities in the approach to performance measurement. What seem to be the underlying assumptions about the nature of performance in each organisation? What perspectives on performance seem to be dominant? Which stakeholder groups are being considered?

B

What conclusions would you draw and what recommendations would you make to each organisation about how to create a more effective understanding of performance? (70 marks)

TMA03

The on-line discussion prompt:

Question 1

A

Complete the final task in session 4 (in the study guide) (which asks you to describe and critique a management control system in your organisation or one you know well). Post a summary of your answer to the activity to your on-line tutor-conference. (maximum of 500 words) (15 marks)

B

Based on the contributions posted in your online conference from part A, discuss how control processes vary between your organisation and those of other students in your conference. From what you have read in the course so far, give your opinion of what lies behind these differing processes (for example, different approaches to control). (15 marks)

The single-authored assignment question:

Question 2

Drawing on contributions from others in your tutor group, compare the management control system in your organisation (or part of it) with at least one other student's organisation.

Evaluate the effects of your organisation's management control system on performance, employee behaviour and learning. (2500 words) (70 marks)

TMA05

The on-line discussion prompt:

Question 1

A

Write a short note explaining a change process you have been, or are currently, involved in. Post this to your online tutor group. In writing this, draw on your answers to the post-session tasks in the Study Guide for Sessions 1-6 (maximum 500 words) (10 marks)

B

Compare your answer with those of others in your group. Discuss the different approaches to change management represented by each change process. Consider the

way in which course frameworks can help you to understand these change processes. (15 marks)

Single-authored assignment question

<u>Question 2</u>

Write a critical appraisal of the role played by Sally as a change agent in the Y-Call case study. (900 words) (25 marks)

<u>Question 3</u>

Consider the change process you described and discussed in Question 1(A). Write a report in no more than 1,600 words:

A) Apply the course frameworks, your learning from the Y-Call case study and insights from your online discussion to an analysis of this change process.

B) Derive recommendations from your analysis for the improvement of the change process. (50 marks)

Appendix 2: Codes and abbreviations used in the thesis

A 2.1 References to the data

Assignment corpus

Data from the ASSIG corpus is referenced by the student's name, the TMA number and the clause number. Therefore, the following extract from the assignment data would be referenced as shown below.

student	cluster group	TMA	type	clause	T-unit
John	Acl.2	tma1	Assig	2	*VCU began trading as GB E C on 1st April 1992.

VCU began trading as GB E. C on 1st April 1992 (John.tma1.cl.2)

CMD corpus

Data from the CMD corpus is referenced by the student's name, the date of the posting and the time of the posting, plus the clause number. The following extract from the CMD data is referenced as shown

name	number ident	cluster group	TMA	type	copy	cl	T-unit
John	8Nov 13.11.	Acl2	tma1	adisc		9	Are beds being used to their maximum advantage?

Are beds being used to their maximum advantage? (John.8/11.13.11.cl.9)

A 2.2 Presentation of examples

The code for the presentation of the analysis in all the examples given in the study, unless otherwise stated, is as shown in the table below. All the constituents that are part

of Theme are underlined and the demarcation between Theme and Rheme is marked by
\.

textual Theme	AND (upper case)
interpersonal Theme	*interestingly* (italics)
experiential Theme	at the lakeside (ariel font)
Topical Theme	**all the ducks** (enboldened)
Rheme	\ start nesting

AND *interestingly* at the lakeside **all the ducks** \ start nesting

A 2.3 Codes for Themes used in the analysis of data

Textual Themes - External Conjunction		
Category		Code
Addition	additive	adde
	alternative	alte
Comparison	similar	ecompsim
	different	ecompedif
Time		etime
Cause	expectancy	ecausexp
	concession	ecauseconc
Condition	concession	econdconc

Textual Themes - Internal Conjunction

Category		Code
Addition		iadd
Comparison	similar	icompsim
	different	icompdif
Time		itime
Consequence		iconseq
Continuants		contin

Interpersonal Themes

	Code
Modal/comment adjuncts	adj
Finite interrogative	finite interr
Projecting clause: interpersonal metaphor objective	met obj
Projecting clause: interpersonal metaphor subjective	met sub
Other projecting clauses	proj
Vocative	voc

Experiential Themes - Circumstance

		Code
Time		time
Place		place
Manner		manner
	reason	reas
Cause	purpose	purp
	behalf	behalf
Contingency	condition	cond
	concession	concess
Accompaniment		acc
Role		role
Matter		matter
Angle		angle

Experiential Themes - Complement

	Code
Complement	exp

Topical Themes

	Code
Anticipatory it clause Theme	ant it
Imperative	imp
Predicated Theme	pred
Non-referential there + process	non-ref there

Appendix 3:   Numerical results of the analysis

Total T-Units

	CMD	ASSIG
Number of t-units per corpus	3011	3723

All calculation given as per 100 t-unit **(p100tu)** and total number of Themes **(t#t)** unless otherwise stated.

Themes in First Position in the Clause Complex

	CMD		ASSIG	
	t#t	per100tu	t#t	per100tu
Topical Themes in first position in clause complex	1145	38.02	2046	55.00
CF Themes in first position in clause complex	1681	55.83	1569	42.14

Totals Number of Textual Themes

CMD		ASSIG	
t#t	p100tu	t#t	p100tu
683	22.68	803	21.57

Textual Themes - External Conjunction

		CMD		ASSIG	
		t#t	p100tu	t#t	p100tu
Addition	additive	253	8.40	361	9.70
	alternative	38	1.26	10	0.27
Comparison	similar	6	0.20	2	0.05
	different	55	1.83	41	1.10
Time		16	0.53	21	0.56
Cause	expectancy	62	2.06	58	1.56
	concession	136	4.52	173	4.65
Condition	concession	1	0.03	2	0.05
Totals		567	18.83	668	17.94

Textual Themes - Internal Conjunction

		CMD		ASSIG	
		t#t	per100tu	t#t	per100tu
Addition		35	1.16	34	0.91
Comparison	similar	39	1.30	43	1.15
	different	4	0.13	9	0.24
Time		16	0.53	6	0.16
Consequence		15	0.50	43	1.15
Continuants		7	0.23	0	0.00
Total Themes		116	3.85	135	3.63

Interpersonal Themes

	CMD		ASSIG	
	t#t	per100tu	t#t	per100tu
Modal/comment adjuncts	133	4.42	79	2.12
Finite interrogative	209	6.94	16	0.42
Projecting clauses realised as interpersonal metaphor objective	57	1.89	52	1.40
Projecting clauses realised as interpersonal metaphor subjective	232	7.71	43	1.15
Other projecting clauses	46	1.53	39	1.04
Vocative	176	5.86	0	0.00
Total Themes	853	28.33	229	6.15

Total Experiential Themes

CMD		ASSIG	
total number of Themes	per 100 t-units	total number of Themes	per 100 t-units
521	17.30	778	20.90

Experiential Themes - Circumstance

		CMD		ASSIG	
		t#t	per100tu	t#t	per100tu
Time		73	2.42	92	2.47
Place		44	1.46	137	3.68
Manner		52	1.73	73	1.96
Cause	reason	40	1.33	104	2.79
	purpose	7	0.23	48	1.29
	behalf	5	0.17	6	0.16
Contingency	condition	109	3.62	88	2.36
	concession	29	0.96	69	1.85
Accompaniment		8	0.27	20	0.54
Role		13	0.43	19	0.51
Matter		63	2.09	51	1.37
Angle		44	1.46	53	1.42
Total Themes		487	16.17	760	20.41

Experiential Theme - Complement

	CMD		ASSIG	
	t#t	p100tu	t#t	p100tu
Complement	34	1.13	18	0.48

Topical Themes

	CMD		ASSIG	
	t#t	p100tu	t#t	p100tu
Total Topical	2668	88.61	3621	97.26
Anticipatory it clausal Theme	39	1.30	47	1.26
Imperative	33	1.10	139	3.73
Predicated clause	22	0.73	22	0.59
Subject Theme	2574	85.49	3413	91.67

Deployment of Pronouns as Subject Theme

	CMD		ASSIG	
	t#t	p100tu	t#t	p100tu
I	283	9.40	74	1.99
he	17	0.56	24	0.64
she	10	0.33	116	3.12
you	111	3.69	16	0.43
we	237	7.87	157	4.22
they	72	2.39	77	2.07
total	730	24.24	464	12.46