Discussion, Cooperation and Collaboration: Group Learning in an Online Translation Classroom

Thesis presented for the qualification of PhD

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Declaration

I hereby certify that this material, which I now submit for assessment on the programme of study leading to the award of PhD, is entirely my own work and has not been taken from the work of others save to the extent that such work has been cited and acknowledged within the text of my work.

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Abstract

The study is an empirical investigation into the implementation of a variety of group-learning structures in an online translation classroom. Drawing on the academic literature in the fields of translation didactics, social constructivism and e-learning, it describes the design and implementation of an online module in economic translation at Dublin City University during the academic years 2003/4 and 2004/5. The main body of the work evaluates the comparative strengths and weaknesses of three group-learning structures implemented in the online module. These are labelled 'discussion groups', 'cooperative groups' and 'collaborative groups' respectively.

A case-study approach is adopted in the study, with transcripts of online discussions representing the main data source. These are analysed using the 'Community of Inquiry' Model, a content analysis model derived from the research literature on Web-based learning. Findings from this analysis technique are triangulated with numerical measurements of student participation and online interaction, and with qualitative evaluation of student perceptions, in order to establish which task structures are most effective in promoting learning on the basis of group interaction via text-based computer conferencing. In addition, the study draws conclusions about the methodologies available for the study of group learning in an online environment, the advantages of Web-based translator training, and the disadvantages and challenges arising from such an approach.

The study has a contribution to make on a number of fronts. It explores the implications of designing translation instruction for Web-based delivery, it adds to the literature on online group-learning structures, and it presents a model for instructors and researchers to investigate the quality of the educational experience in an online translation classroom.

1 Introduction

Recent years have seen two important developments in the area of translator education. First, group-learning approaches have become recognised as a key methodology in translation didactics (see e.g. Mossop 2001: xv), particularly since the appearance of Kiraly's groundbreaking work on the subject, *A Social Constructivist Approach to Translator Education* (2000). And second, there has been a small but noteworthy growth in the number of translation departments offering Web-based courses and programmes of study (see Pym et al. 2003: 80ff.). Yet, in significant ways, the scholarly literature has lagged behind changes in the field of instruction. Not only has very little been published on the subject of e-learning in translator education (shorter exposés on the subject include Reinke 1997, Folaron 2002, Pym et al. 2003, Campbell 2004, Massey 2005 and Kenny 2006), but unlike other disciplines, the Translation Studies literature has thus far failed to explore the potential of computer-mediated communication to foster and encourage group learning. Indeed, Kiraly actively discourages use of the online medium to implement the social constructivist learning techniques he proposes for translation instruction (see Kiraly 2000: 128; see also page 26 of the study).

The present study addresses these anomalies by providing a systematic and comprehensive account of the design, implementation and evaluation of group-learning techniques in the provision of online translator training. It seeks to make a significant contribution to our understanding as translator educators and researchers of the theoretical and practical implications of converting to Web-based instruction and implementing social constructivist principles in a virtual translation classroom.

1.1 Purpose of the Study

The purpose of the study is to examine the impact of task structure on group learning in an online translation classroom. We adopt the definition of group learning proposed by Kaye as: "*the acquisition by individuals of knowledge, skills, or attitudes occurring as the result of group interaction*, or put more tersely, *individual learning as a result of group process*" (1992: 4; italics in the original). Task structure is understood as the design imposed on the learning activity by the instructional designer in accordance with a

specific understanding of the learning process. The notion of 'task' is understood to encompass both the learning process and the product of that learning in the form of a tangible result which is recorded in some way (see González Davies 2004: 23). In the present study, three task structures intended to foster group learning in the online translation classroom will be examined and compared. The first of these is termed 'discussion group' and refers to a structure in which large groups of learners provide cognitive and emotional support to one another through conversation while working simultaneously on the same task and engaged in the creation of individual learning products. The second structure, termed 'cooperative group', refers to a small group of learners engaged in the production of a group artefact where the work is divided into chunks carried out independently by group members. The third structure, 'collaborative group', involves a small group of learners engaged in the creation of a group product, where group members work synchronously and in parallel on all aspects of the task.

As well as pinpointing the relative benefits and drawbacks of the three learning structures in the context of online translator training, conclusions will be drawn in the course of the study in relation to: the methodologies which may be employed to investigate online group learning; the advantages of Web-based delivery of translator training; and the disadvantages and challenges arising from this approach.

1.2 Procedure

The study adopts a qualitative case study design. The focus is on an individual case from the 'real world' of translator education, in which a translation exercise module in German economic translation was delivered online to a group of 20 postgraduate students enrolled on Dublin City University's Graduate Diploma/MA in Translation Studies during the academic year 2003/4, and redelivered to a group of 9 students during the academic year 2004/5. In common with other examples of case study research, multiple sources and multiple types of evidence are used to investigate the research questions. The study endeavours to describe and interpret the research situation as the researcher finds it, and no attempt is made to create experiment-like conditions in order to compare the online environment with the face-to-face classroom.

Because the researcher was directly involved in the design, implementation and evaluation of the case under investigation, it may be said that the study also displays elements of action research. Action research is a subcategory of case study research and is frequently used in educational settings by teachers wishing to improve their educational practice and share the experience with others. The present researcher and the researcher's supervisor designed the module in economic translation for the online classroom; delivered the module as teaching assistant (the researcher) and main instructor (the researcher's supervisor); and collaborated to evaluate the success of the module and modify it for future implementation.

1.3 Significance of the Study

The present study is of immediate relevance to providers of translator training who plan to embark on the development of e-learning opportunities, allowing them to benefit from the experiences and challenges described here. Concrete examples are given of online activities reflecting up-to-date principles of translation didactics. Furthermore, the potential for group learning in a Web-based translation classroom is explored in detail. Particular attention is paid to evaluating the quality of student interaction in the virtual classroom and to identifying the tasks and activities that lead to a successful group-learning experience. In this way, the study adds a new dimension to the work of social constructivists like Kiraly by introducing to the field of translation didactics insights gained from the vast body of literature on online collaboration in disciplines other than Translation Studies.

It will emerge in Chapter 2 that while a certain amount of research has been carried out comparing group-learning structures in face-to-face instruction, few studies have focussed on their implementation in a Web-based setting. Furthermore, when it comes to the online translation classroom, the literature does not provide any practical guidance as to the impact of task structure on group learning. Hence, the present investigation has a significant contribution to make on a number of fronts. It will add to the slowly growing body of educational research on the subject of computer-mediated learning groups. And, more importantly, it will provide a systematic analysis of the options available for the implementation of group-learning techniques in online translation instruction.

The subject of e-learning is of interest to providers of translator training for at least four reasons. Firstly, the integration of new technologies into translator education programmes addresses the needs of the translation marketplace by ensuring that before they enter the translation profession students have become familiar with electronic translation tools, including, in the case of online learning, email, attachments, listservs and Web-based resources. Secondly, at a time when academic translation programmes are offered in an ever more competitive educational market and the number of school leavers continues to dwindle, at least in Western Europe, the Internet can provide a means of improving access for 'non-standard', part-time and mature learners. Thirdly, there are pedagogical advantages to delivering translator training online, although these have been largely unexplored in the Translation Studies literature to date. Benefits cited in the literature include reflective learning (Reinke 1997), independent learning (La Torre 1999), authenticity (Wakabayashi 2002 and Massey 2005), collaborative learning (Faloran 2002 and Massey 2005) and the professional socialisation of translators (Wakabayashi 2002). And fourthly, the use of e-learning can contribute to our theoretical understanding of key research issues in the field of translation didactics. As will be shown in this study, a virtual learning environment with its permanent record of contributions by students and tutors provides a valuable resource for research purposes.

Group learning is of particular relevance to translator educators. In the authentic translation workplace, translators frequently work as part of a team, for example when translating different parts of the same document or when translating the same document into different languages. Hence, integrating group work into the syllabus provides training in the teamwork and group skills required by the professional translator. Furthermore, the educational literature shows that working as part of a team enhances student learning through the sharing of multiple perspectives and the provision of emotional support by the group. The significance of this study rests in the fact that it demonstrates, on the basis of empirical evidence, the relative merits and drawbacks of different types of group learning in the online translation classroom.

1.4 Overview of the Study

The study consists of six further chapters. Chapter 2 presents a review of the relevant literature, drawing on scholarly research relating to: translator training in the face-to-face and virtual translation classrooms; social constructivist theories of group learning; and e-learning in disciplines other than Translation Studies. Chapter 3 defines the research methodology employed in the present investigation into group learning in the online translation classroom. Chapter 4 discusses the principles used to design an online module in economic translation at Dublin City University. It also gives an overview of the learning tasks implemented in the module, and provides some initial numerical measurements of online activity and interaction. Chapter 5 evaluates 15 group-learning tasks which were implemented in the module using a discussion-group structure, and demonstrates the application of content analysis techniques to transcripts of online discussions relating to these tasks. Chapter 6 examines three cooperative-group and collaborative-group tasks carried out during the first and second implementations of the online module, employing numerical and qualitative techniques introduced in the previous two chapters to analyse the tasks. Finally, Chapter 7 looks at two implementations of a small-group translation evaluation task in order to test the validity of findings from the previous chapters.

2 Review of the Literature

The present investigation draws on research from a variety of fields: translation pedagogy in the face-to-face and virtual classrooms; social constructivist theories of group learning; and e-learning, largely in disciplines other than Translation Studies. This chapter presents a review of these areas of research and highlights points of intersection between them. In addition to providing an overview of key principles and definitions, the chapter aims to shed light on the contribution each field can make to a sound theoretical underpinning for the design of e-learning in translator training. An emerging theme will be the match between social constructivist methodology and an emphasis on group learning as a guiding principle in the design of online translator training. The chapter also aims to highlight gaps in the literature with a view to formulating research questions to be examined in the present investigation.

The chapter comprises four sections. It opens in Section 2.1 with a review of academic publications on e-learning in translator education. Section 2.2 considers the literature on translation teaching in the face-to-face classroom, opening with a discussion of conventional translation instruction and moving on to contrast this with modern functionalist and social constructivist approaches. A number of design principles reflecting contemporary thinking in the field of translation didactics emerge in this section, first and foremost the principle of group learning. Section 2.3 turns to the literature on computer-mediated communication and demonstrates the inherent suitability of this medium to the facilitation of online discussion and group work. This section concludes with an introduction to the 'Community of Inquiry' Model, which was developed by a team of researchers at the University of Alberta as a model of good practice for the online classroom and which will provide the most important data analysis tool in the present study. The final section of the chapter, 2.4, addresses the literature on instructional design and identifies three group-learning structures – termed 'discussion groups', 'cooperative groups' and 'collaborative groups' – which may be implemented by the instructional designer in order to facilitate peer interaction and group learning. This section concludes by asking what the research literature can tell us about the implementation of such structures in an online learning environment.

2.1 E-learning and Translator Education

Little research has been carried out to date on the subject of e-learning in translator training. In particular, there is a shortage of empirical investigation reporting and evaluating in a systematic way the experience of delivering translation programmes online. What literature does exist tends to be of a conceptual nature, focussing on design principles and technical questions, and on providing a rationale for creating e-learning opportunities within translator education. While no published textbook exists in the area, a number of papers have appeared in journals (cf. e.g. Reinke 1997, Gillespie 2000, Millán-Varela 2001, Folaron 2002, Massey 2005, Kenny 2006 and Pym n.d.) and in a collection published by the Intercultural Studies Group at the University of Tarragona in Spain (Pym et al. 2003). These publications form the basis of this section of the literature review, which deals firstly with three main arguments commonly put forward in favour of Web-based translator training, and secondly with instructional scenarios for the online translation classroom forwarded in the academic literature.

2.1.1 Three Benefits of Online Translator Training

Pym suggests that one of the primary reasons why online learning is of interest in translator education is the fact that it allows for "the tapping of new markets for training" (n.d.: 1). E-learning enables international and mature students to avail of educational opportunities which would not otherwise be available to them. Translation students do not generally fit the profile of the traditional undergraduate school-leaver and many come to the profession later in life, having completed a primary degree and perhaps lived and worked for several years in a foreign-language environment. Many will already be working as translators and may have an interest in updating their theoretical and/or technology skills. Others have family commitments preventing them from travelling long distances to attend courses running on a rigid timetable and schedule of meetings. Millán-Varela (2001) describes a distance learning MA programme in the University of Birmingham where "the majority of students [. . .] are in full-time employment [. . .], so it would have been difficult for them to obtain an academic qualification otherwise" (2001: 125-6). Similarly, Fulford, in a survey of the training needs of freelance translators, found that "the majority suggested that self-directed learning packages, or home study courses

would be most suited to their working environments" (2002: 121). According to Alvarez, the study of translation lends itself to distance learning: it is "one of the subjects which can be learnt at home when the teaching materials and the support provided to students are adequate" (1992: 152).

A second argument put forward in favour of online translator education is that Web-based learning provides authentic experience in computer applications and online resources used by the professional translator. The practical realities of professional life represent the most compelling reason for the integration of any kind of technology into the translation curriculum. Kenny, for example, states that technology training is "a reaction to developments in the work place and [. . .] a necessity, if not an obligation, that confronts universities" (1999: 66). If we accept that trainees must be prepared for professional life through exposure to key aspects of authentic translation practice, it follows that translator education must keep pace with technological developments and provide training in relevant computer applications. According to Pym, the most cogent reason for online translator education, is "that professional translating increasingly involves the use of the electronic tools used in e-learning (email, attachments, websites, FTP)" (n.d.: 2). Folaron suggests that students training in an online environment "quickly learn to feel comfortable working with electronic tools, Web-based resources, and digital formats" and that they "learn to implement these tools and skills as a matter of course and procedure" (2002: 21). Reinke (1997), in his article on Internet-based translator training, focuses on the communication aspects of the online environment, arguing that network technologies may be used to simulate what happens in professional life, where computer-mediated communication is an essential part of the daily routine of translators who sometimes work in geographically-dispersed teams:

> sei es bei der Kommunikation mit Auftraggebern, bei der Informationsrecherche oder bei der Koordination mit Kollegen, etwa bei größeren Projekten, an denen ein auf verschiedene Orte verteiltes Übersetzungsteam arbeitet (Reinke 1997: 145). [in communicating with clients, carrying out research, or coordinating with colleagues, for example when a translation team at remote geographical locations is working on a larger project; translation mine]

A third argument in favour of Web-based translator training is that there are pedagogical advantages. Because online learning has made a relatively recent appearance in translator education, however, evaluation of the pedagogical implications is still in its infancy. Referring to an online Symposium 'Translator Training and E-Learning', organised by the Intercultural Studies Group in November 2001, Pym remarks that most of the symposium discussion revolved around technical issues, while "the possibility – indeed, the certainty – that electronic tools alter the nature of the learning process itself" (n.d.: 6) was not adequately addressed. While some claims are made in the Translation Studies literature about the learning and teaching advantages of e-learning, these tend not to be substantiated or backed up by sound empirical evidence. Reinke (1997: 151) argues, for example, that the online medium produces more reflective learners as it 'forces' them to formulate and defend their decisions in writing. La Torre (1999: 41) contends that the Web-based environment enhances and supports independent learning. Folaron stresses the collective advantages of working online, which, she claims, include "innumerable options for interactivity and feedback (synchronous and asynchronous); [and] ease in community-building and networking" (2002: 20). Similarly, Massey states that "e-learning can and does offer workable collaborative, authentically situated solutions for teaching instrumental-professional competence" (2005: 630). Finally, Wakabayashi, who stresses the potential of translators' mailing lists for "the skill-building and professional socialization of translators" (2002: 47), argues that, as well as providing an authentic setting for the discussion of translation problems, mailing lists "facilitate *learner-centred, self-directed* and *self-paced* learning at a time convenient to the subscriber" (ibid.: 54; italics in the original).

2.1.2 Instructional Scenarios for the Online Translation Classroom

When it comes to the design of learning activities for the online translation classroom, the literature contains little by way of practical suggestions. In particular, the question of group learning is not addressed in any level of detail, and where it is, there is no attempt to evaluate the quality of the group-learning experience. Reinke (1997) is one notable exception; however, his article is almost 10 years old and his ideas have not been developed further by other researchers in the field. Reinke draws on Paulsen's (1995)

distinction between four pedagogical techniques for computer-mediated communication (CMC): one-alone, one-to-one, one-to-many and many-to-many (see further Section 2.3.3, page 32ff.). Taking Nord (1996) as his point of departure, he examines how Paulsen's pedagogical techniques may be used to support six teaching strategies identified by Nord: translation revision, parallel-text translation, guided translation, multiple-choice translation, team translation and project translation (for more on Nord's approach, see Section 2.2.2, page 14ff.). He describes, for example, a number of different approaches to a translation revision task which may be undertaken on a one-to-one basis using email communication either between a teacher and a student or between a pair of students, or on a many-to-many basis with several students discussing the merits/drawbacks of the translation via computer conference. While Reinke's article contains some useful instructional suggestions, his evaluation of the different strategies remains speculative in nature as the following statement illustrates:

> Gegenüber einer traditionellen Face-to-Face-Lernsituation *könnte* die Online-Diskussion zu einer gleichmäßigeren Beteiligung aller Gruppenmitglieder führen, wenn der Einzelne in der Diskussion anonym bleiben kann. (Reinke 1997: 149) [Compared to a traditional face-to-face learning situation, online discussion *could* lead to more equal participation by all group members if the individual can remain anonymous in the discussion; translation and italics mine]

Other studies that touch on group-learning techniques in the online translation classroom include Gillespie (2000), Millán-Varela (2001) and O'Hagan and Ashworth (2002). Gillespie (2000) describes using computer conferencing to support one-to-one communication between students and tutors and between pairs of students, but in his study the full potential of computer conferencing to support group work is not investigated. Similarly, Millán-Varela (2001) discusses the implementation of an electronic mailing list for an online distance MA in Translation Studies but finds that students are reluctant to use it because of "lack of time and too much self-awareness" (2001: 133). Finally O'Hagan and Ashworth describe a virtual translation course at the University of Hawaii in which students post assignments to a bulletin board for peer review and gain experience working in virtual teams on group translation tasks. On the basis of this experience, the authors draw a number of conclusions with regard to the benefits and drawbacks of using text-based, asynchronous communication to deliver

Web-based translator training (for a definition of computer-mediated asynchronous communication see Section 2.3 below). These include, on the negative side, the time investment required of the instructor, the risk of misunderstandings in text-based communication and the amount of support needed by students with low levels of computer literacy. Advantages cited by the authors include time and place-independence, the ability to create virtual communities and virtual teams, and the possibility of integrating global perspectives by interacting with colleagues from abroad.

2.2 Principles of Classroom-based Translator Training

Because of the paucity of empirical research on virtual translator training and in particular on the use of group-learning techniques in such a setting, the instructional designer who intends to develop e-learning opportunities in the field of Translation Studies needs to consult the literature on *face-to-face* translation instruction. This section begins with an introduction to the conventional translation classroom as described by authors such as Jakobsen (1994), Nord (1996, 1997), Kiraly (2000, 2003), Colina (2001) and Cronin (2005), before moving on to consider functionalist and social constructivist approaches put forward by Nord (1991, 1994, 1996, 1997, 1999, 2003 and 2005) and Kiraly (2000, 2003) respectively.

2.2.1 The Conventional Translation Classroom and its Critics

For as long as translation has existed (and it is sometimes referred to as the world's second oldest profession), novices to the profession have been trained, either on an informal apprenticeship basis or in a formal educational context. In Western Europe and North America today, most translator education takes place within specialist university departments or dedicated translation institutions. The systematic training of translators began during the 1930s and 1940s and received an important impetus with the end of the Second World War and the subsequent drive for international understanding and durable peace (see Caminade and Pym 1998: 282). At that time, several university-level translation institutes were established on the periphery of the former German Reich: Graz (1946), Innsbruck (1946), Germersheim (1947) and Saarbrücken (1948). Pym (2003) calculates that today there are approximately 350 specialised university-level translator

training programmes worldwide. Two basic models of formal training exist: a four or five-year undergraduate degree course and a one- to two-year higher degree for language graduates. The latter is the usual model in Great Britain while the former is prevalent in mainland Europe (see Anderman and Rogers 2000: 63). In Ireland, both versions exist, although there is a preference for the postgraduate model (for an overview of university translation courses in Ireland, see Phelan 2006).

Despite the emergence and proliferation of dedicated translation schools over the past half-century, distinctive approaches to the teaching of translation failed to materialise until relatively recently (see Cronin 2005: 250). Until the 1990s, the dominant paradigm of translation instruction stemmed from the teaching of Latin, where translation exercises were deployed primarily as a tool for improving reading and writing skills. In this scenario, translation exercises were "used to learn structural differences between languages and to test the students' knowledge of these differences" (Colina 2001: 3). The structuralist approach to translation and translation teaching gives priority to decoding formal structures and lexis in the source text, and transferring these to their nearest target-language 'equivalents' (see Hatim and Mason 1990: 25ff.). Translation, in this scheme of things, proceeds "sentence by sentence or, more frequently, phrase by phrase or even, if possible, word by word" (Nord 1997: 67). It is a "bottom-up" skill (Baker 1992: 6) which begins with the smallest units of language. The translator adheres as closely as possible to the syntactic and grammatical features of the original, and equivalence with the source text is regarded as the ultimate yardstick of translation quality.

Contemporary writers on translation didactics tend to dissociate themselves openly from the traditional grammar/translation method which they believe to be ill-suited to the practical needs of the modern translation profession (see e.g. Jakobsen 1994, Kiraly 2000 and 2003, Nord 1996 and 1997, Colina 2001 and Cronin 2005). In particular, the notion of structural equivalence has come under scrutiny. According to Hatim and Mason, exclusive preoccupation with correspondence between grammatical categories across different languages is "an exercise in usage rather than in use, in language-as-system rather than in language-as-communication" (1990: 33). Furthermore, recent developments in linguistics and cultural studies suggest that if equivalence is to be

regarded as a yardstick for translation quality, then it must comprise more than mere similarity between grammatical and lexical forms. Kenny's definition of 'equivalence' in the *Routledge Encyclopedia of Translation Studies* (1998: 77ff.) distinguishes many levels, including *referential* (source-language and target-language words refer to the same thing), *lexical* (similarity of expressions between source text and target text), *connotative* (source-language and target-language terms summon up the same concepts or images for native speakers of the respective languages) and *pragmatic/dynamic* (source-language and target-language words have the same effects on their readers).

One of the main criticisms levelled at conventional translation instruction is the poor translational performance of students who have learned their trade in a source-text-oriented, grammatically-fixated classroom. Armed with a bilingual dictionary, trainee translators who start with the smallest units (as they have been taught to do) and translate phrase by phrase and word by word inevitably produce errors resulting from linguistic interference (cf. Nord 1997: 67). They fail to apply a holistic translation strategy to the text as a whole. What they lack is a "top-down" approach (cf. Kußmaul 1995: 14), with the result that, as they proceed through the translation task, they find themselves confronted with passages which appear 'untranslatable' or which necessitate the revision of earlier sections of the text.

A second widely-aired criticism of the traditional translation classroom is that it is overly teacher-centred (see e.g. Jakobsen 1994, Nord 1996 and Kiraly 2000). The translation instructor selects texts for translation, determines what resources are to be used, dominates classroom discourse and is the sole provider of feedback on students' work (which is usually undertaken on an individual basis outside class). Underlying this approach is the idea that there is one correct way, i.e. the teacher's way, to interpret and translate a text. By this account, translation competence is 'transferred' from instructor to student in the form of rules and strategies: "The teacher, having acquired expert knowledge through training, education and experience, is expected to 'transmit' that knowledge to students" (Kiraly 2003: 28). Critics of the 'transmissionist' classroom point to the lack of motivation in a learning situation of this kind where students are obliged to second-guess the teacher's solutions (Jakobsen 1994: 144). Nord maintains that learners

rarely experience a sense of achievement, and that they complain about being at the mercy ("Ausgeliefertsein") of the subjective whims of an omniscient, authoritarian teacher (1996: 313). Associated with this focus on the one-way transmission of knowledge is the absence of teamwork and group learning in the traditional translation classroom. Students work in isolation and "produce sample translations in a social vacuum, translations that have no intended audience other than the teacher, that were commissioned by the teacher and that will be assessed and corrected by no one other than the teacher" (Kiraly 2003: 28).

A further, connected problem with the conventional translation classroom identified in the research literature is its lack of authenticity. Fraser refers to the "distinction between the translation taught on university courses and the *real world* of translation" (Fraser 2000: 51, italics in the original), while Kiraly characterises the conventional classroom as "patently inauthentic, inactive and disempowering" (2000: 52). Students "are involved in no more than a contrived pedagogical situation" (ibid.: 53), with translation exercises undertaken for the purpose of acquiring and demonstrating mastery of formal aspects of the source language. Such translations, produced in a communicative vacuum, are referred to by Jakobsen as "pseudotext" (1994: 144).

The picture of the conventional teaching environment painted above is necessarily stereotypical in nature. While such practices might not be openly advocated in educational circles today, nevertheless Kiraly argues that they are at least implicit in much of what still passes for translator education (see Kiraly 2000: 15 and 2003: 27). He maintains furthermore that "it is precisely the failure of translation educational institutions to explicitly define the principles underlying their teaching methodologies" (2003: 27) that has led to the perpetuation of outmoded instructional models within translator education.

2.2.2 The Communicative Shift: Functionalism and Translator Training

Since the 1980s, a communicative shift has occurred in Translation Studies and "the view that translation must be studied as parole (a communicative event) rather than langue (an abstract system)" (Fawcett 1997: 4) has gained widespread currency. Today, translation is

broadly seen as a communicative process in which the key elements are the actors (the client, the reader and the translator) together with the communicative context of the translational action. Context or situation is understood to include the social, cultural, temporal and geographical circumstances which influence the writing of the source text, the commissioning of the translation, the production of the target text and the reception of the translated product in the target culture.

Hatim and Mason have commented on the apparent time-lag between linguistic ideas gaining currency, "their subsequent passage into works on translation theory and their eventual pedagogical application in manuals of translating" (1990: 31). In a similar vein, Cronin notes that "as late as the mid-nineties the communicative revolution seemed to have passed translation teaching by" (2005: 253). Thus, it was only in the 1990s that serious monographs on translation didactics began to appear which reflected the communicative shift in the study of language and translation and "looked at the teaching of translation not only as a practical but as a *theoretical* problem" (Cronin ibid.: 250; italics in the original). One such approach is Nord's application of functionalist translation theory to translation teaching (see Nord 1991, 1994, 1996, 1997, 1999, 2003 and 2005). In outlining the functionalist approach, Nord takes as her point of departure the notion of *Skopos*, introduced into translation discourse by Reiss and Vermeer (1984). The *Skopos*, or communicative purpose of any translation, is defined by the communicative context in which the product is received. Nord distinguishes between *intention* (of the source text author) and *function* (the use to which the target text will be put by the recipient). In an ideal scenario, intention and function merge in the *Skopos* of the translational act. Where the target text fulfils a different function from that intended by the source text author, "the receiver, or rather the addressee, is the main factor determining the target-text *Skopos*" (Nord 1997: 29).

The functionalist view of translation has brought about a significant shift in focus away from the source text and the *diktat* of equivalence, towards the target-language culture and receiver. In the words of Jakobsen, "translation begins with a need for a text. It starts with the target text" (1994: 145). This has sometimes been misconstrued to suggest that functionalism does not pay proper attention to the source text. However, as Nord points

out, it is not the case that giving due consideration to pragmatic issues "excludes philological or literal or even word-for-word translations" (1997: 29). What matters is the communicative purpose of the target text and "there are many cases where relative literalism is precisely what the receiver (or the client or the user) needs" (ibid.). Even when the target-text function requires departure from the source-text original, the translator is compelled by the principle of loyalty towards the other actors in the communicative act to produce as faithful a version of the original text as the communicative purpose for which the translation is undertaken will allow (see Nord 1994: 365).

One important implication of this approach is the focus on the entire text as the basic translation unit. A text is more than the totality of the individual words and phrases it contains. It is a coherent whole, a super-structure whose overall purpose may be reflected on a number of levels. It is therefore essential to consider the text in its totality when translating at word or sentence level. Nord has introduced the notion of the "vertical translation unit" (1997: 69) into the study of translation. This implies that the overall text function is expressed at various levels such as sentence structure, the words and phrases used, and the order in which information is presented. "Translate sind Texte", according to Nord (1996: 325), and a text is "a complex construction in which all parts cooperate to obtain certain global purposes" (1997: 72).

Functionalism also departs from more traditional approaches to translation in its definition of meaning. Each text can contain the potential for multiple meanings. Nord refers to Vermeer's definition of text as an 'offer of information' from which the reader chooses items that are relevant or interesting (Nord 1997: 31). In translating, the translator too selects from the source-text offer of information to produce a target text which represents, in turn, an offer of information in the target culture or language. This marks a departure from the objectivist epistemology underlying much traditional thought on translation and translation teaching. No longer does the assumption hold good "that a text can have 'a' meaning in the first place" (Kiraly 2000: 25) to which the translator gains access, and which "can then be moved to or reproduced in the target-language text" (ibid.). We will return to this notion of text as an 'offer of information' in our discussion

of Kiraly's definition of translation as an 'ill-structured knowledge domain' in Sections 2.2.3 and 2.2.4 below.

Functionalism has found ready acceptance within the academic study of translation not least because it reflects authentic practice in the translation workplace. In the words of Nord:

> [. . .] es zeigt sich, daß dort [in der Übersetzungspraxis] keineswegs das Postulat der Äquivalenz an erster Stelle steht, sondern die Forderung, daß eine Übersetzung als Text in der Zielsprache und –kultur die von ihr erwarteten kommunikativen Funktionen erfüllen müsse. (1999: 15) [it has been shown that in translation practice, top priority is not given to the postulate of equivalence, but to the communicative functions that a translation is required to fulfil as a text in the target language and culture; translation mine]

In the 'real world' of professional translation, translators do not adhere rigidly to the source-text original, except where the purpose of the translation requires them to do so; neither do they work in a communicative void. Ideally, the translator is supplied by the client with information about the purpose and readership of the target text in the form of a translation brief, and he or she uses this information to define a translation strategy and, ultimately, the translation product.

Nord argues that functionalist approaches "have been developed with an orientation toward translator training, and this is still one of the main fields in which they are most useful" (1997: 39). She summarises the implications of functionalism for the translation classroom in a recent article (2003) where the following basic principles of translation teaching are outlined: 1. the use of authentic and practice-relevant texts; 2. the provision of a translation brief providing information about target-text function(s); 3. access during the translation process to relevant aids and tools (such as parallel texts, glossaries, dictionaries and Internet search engines); 4. contrastive analysis of authentic, 'real-life' parallel texts; 5. the promotion of team work and management skills through translation projects; and 6. the replacement of the traditional university schedule, where a specified number of hours per week are spent in class on a particular task, with one that reflects professional practice complete with deadline pressure and tight time schedules.

2.2.3 Social Constructivism and Translator Training

In his influential work on translator training, *A Social Constructivist Approach to Translator Education*, Kiraly calls for "a change of focus from the tyranny of teaching, to learning as a collaborative, acculturative, and quintessentially social activity" (2000: 18). In developing his approach, Kiraly draws on functionalist thought and, to a greater extent, on the writings of social constructivist scholars (see in particular articles in Duffy and Jonassen, eds. 1992). Kiraly identifies two features as essential to the social constructivist translation classroom: "authentic practice in actual professional activities" and a group-learning environment "including not only interaction among students but also the extensive involvement of the students in every aspect of the teaching/learning process" (2003: 30). This section examines key tenets of social constructivism upon which Kiraly bases his approach. These are: knowledge as a social construct; ill-structured knowledge domains; the principle of situated cognition; the importance of multiple perspectives; and the role of conversation in learning.

All theories of learning have at their core a specific concept of knowledge. The main difference between social constructivism and other approaches to learning is the underlying epistemological understanding. Social constructivists hold that knowledge is constructed by the mind on the basis of intellectual and perceptual experience, rather than being objective and external to the learner. Yet, while knowledge comes into being in the individual mind, it is also something that is shared. This is evidenced by the fact that beliefs and understandings are passed down from one generation to the next. Social constructivists argue that it is only when beliefs and understandings are shared, and agreement between divergent positions reached, that knowledge comes into being (see Mercer 1995 and Bruffee 1999). Hence, Bruffee states: "knowledge is a consensus: it is something people construct interdependently by talking together" (1999: 133). Similarly, Mercer urges us to view knowledge "as a social entity and not just as an individual possession" (1995: 66). Knowing is based on a relationship between subject and object which is mediated not only by the individual mind, but also by conversation and negotiation among people. What matters is not that opinions and beliefs represent some objective and 'true' reality, but that they can be justified socially against the beliefs of

others. Thus, knowledge is a social construct; it is "what we can explain to one another's satisfaction about what we believe in common about the world" (Bruffee 1999: 118).

Constructivist authors distinguish between well-structured and ill-structured knowledge domains (cf. contributions in Duffy and Jonassen, eds. 1992). Well-structured fields are rule-based and characterised by orderliness and regularity. Examples are basic arithmetic and the elementary stages of language learning. In the instructional situation, such knowledge can be easily dissected and broken up into digestible chunks for consumption by the learner. Ill-structured knowledge domains, on the other hand, involve "concept- and case-complexity" and "across-case irregularity" (Spiro et al. 1992: 60). Such domains include history, medicine and literary interpretation, and, as we shall see in Section 2.2.4 below, translation, described by Kiraly as "an 'ill-structured knowledge domain' *par excellence*" (2000: 27). Even fields like mathematics, which may appear systematic and orderly in the early stages of learning, prove to be ill-structured and disordered when approached at a more advanced level. In fact, ill-structuredness may be said to be a feature of most, if not all, areas of advanced knowledge acquisition. In such knowledge domains, the instructional situation should be designed in such a way as to support learners in the process of shared knowledge creation.

One of the most frequently-aired criticisms of traditional approaches to education is the inability of the learner to transfer knowledge acquired in one educational context to other settings both inside and outside the classroom (cf. contributions in Duffy and Jonassen, eds. 1992). This is because conceptual knowledge has traditionally been taught either in one context only or entirely out of context in the form of abstractions and generalisations. Knowledge presented in this way becomes "'contextually welded' to very particular circumstances" (Perkins 1992: 51). It is static, inflexible and inapplicable to other settings. Hence, social constructivists argue that knowledge must be built by studying the object in its natural setting. Brown, Collins and Daguid (1989), in their article on 'situated cognition', compare conceptual knowledge to a set of tools. While it is possible to acquire a tool and not know how to use it, true understanding entails being able to use the tool successfully in a particular context. Effective use alters the way in which the user views the world, and also changes the user's understanding of the tool itself. Thus,

knowledge and meaning are dependent on the context in which they are created. Brown, Collins and Daguid maintain that the constituent parts of conceptual knowledge are "inextricably a product of the activity and situations in which they are produced" (1989: 33). In a similar vein, Maddux, Johnson and Willis argue that "no content is universal and independent of the context in which it is learned" (2001: 149). This means, on the one hand, that learning occurs most effectively in context, rather than in the form of abstract rules and structures, and on the other hand, that the context in which knowledge is constructed becomes a constituent part of what is learned (cf. Brown, Collins and Daguid 1989: 32).

From the principle of situated cognition, which states that learning needs to be embedded in a context that is relevant to the uses to which what is learned will eventually be put, Kiraly extrapolates the principle that trainee translators should be required to undertake authentic, publishable translation projects, ideally secured by the tutor or by the learners themselves (Kiraly 2000: 66). Like Nord, Kiraly argues for the provision of a translation brief with pragmatic details for the job at hand; if the project is a 'real-life' task sourced from a genuine client, students should receive information about the intended readership and purpose of the translation. However, while Nord recommends matching translation assignments to student abilities and needs, Kiraly criticises her approach as "complexity reduction" (2000: 57). He argues instead that the learning of professional translation skills is best achieved by undertaking professional translation tasks "in all of their complexity" (ibid.: 43). Students must learn to deal with the natural complexity of authentic texts if they are to develop the skills and expertise of the professional translator. The translation assignment should not be broken down by the teacher into the component skills of text analysis, research, target-text production etc. Rather, subtasks will emerge naturally during project implementation, as students identify the necessary steps for completing the process (Kiraly 2000: 60).

There is an important link between the context dependency of meaning discussed here and the value to the learner of exposure to multiple perspectives and representations. In his study of language, Wittgenstein argued that, as meaning is context-dependent, it becomes ever fuller and richer as the number and variety of contexts in which it is

experienced expand (see Duffy and Cunningham 1996: 172). Similarly, Koschmann et al. maintain that knowledge grows and is enriched when cases and concepts are revisited and viewed from multiple perspectives (1994: 233). This brings us to what Spiro et al. consider to be one of their principal tenets: "that the phenomena of ill-structured domains are best thought of as evincing *multiple truths*: Single perspectives are not *false*, they are *inadequate*" (1992: 122; italics in the original).

In a social constructivist learning environment, one way of eliciting alternative perspectives is through group-learning techniques. Students acquire the skills associated with developing, sharing and evaluating multiple perspectives by bringing their subjective viewpoints to the learning situation and testing these against the ideas and beliefs of the group. In this way, meaning and knowledge of complex subject domains are negotiated and constructed by the group through interaction and discussion. Disparate views are evaluated in order to arrive at an interpretation that is relevant and acceptable to the majority. The individual learns skills of articulation, debate and negotiation, in addition to internalising the knowledge constructed by the group. Thus, the act of collective learning fulfils the dual goals identified by Kiraly: "meaning-making on the part of the group" and "the appropriation of cultural and professional knowledge on the part of each individual group member" (2000: 36).

One of the most important aspects of the notion of multiple perspectives is that it establishes communication as the cornerstone of constructivist learning. Dialogue amongst learners, and between learners and instructors, is placed centre stage. Indeed, Cunningham identifies as the distinguishing characteristic of constructivism "its emphasis on argument, discussion, and debate" (1992: 157). A learning environment which encourages dialogue and interaction is also a closer approximation than traditional schooling of the way in which belief systems are developed within 'real-life' socio-cultural settings where conversation and exchange of ideas are the norm.

On the basis of the social constructivist principles discussed here, Kiraly summarises the significance of interaction and group learning in his approach to translator education as follows:

> I [. . .] place considerable emphasis on group learning, on shifting the focus of attention in the classroom away from the one-way distribution of knowledge in the traditional classroom, toward multi-faceted, multi-directional interaction between the various participants in the classroom situation. (2000: 20)

Kiraly believes that project-based workshop classes with a focus on group learning lend themselves to the development of two types of competence: *translation* competence and *translator* competence. He defines *translation* competence as the "specific skills that allow one to produce an acceptable target text in one language on the basis of a text written in another" (2000: 13) and *translator* competence as being "able to act (communicate) successfully within parallel expert communities in different linguistic-cultural communities" (ibid.). It will be shown in the next two sections that the acquisition of both types of competence may be supported through the implementation of social constructivist group-learning techniques.

2.2.4 Group Learning and the Acquisition of *Translation* Competence

As we saw above, Kiraly defines translation as "an 'ill-structured knowledge domain' *par excellence*" (2000: 27). This definition has important implications for understanding both what constitutes translation competence and how the instructional situation should be designed. In order to clarify Kiraly's interpretation of translation competence, it is useful first of all to draw on Pym's (1992 and 2002) definition of the concept. In his article, 'Redefining Translation Competence in an Electronic Age' (2002), Pym reviews a large number of definitions of translation competence. He identifies "linguistic summation" concepts, which define translation competence as the dual skills of source-text analysis and target-text production (examples cited by Pym include Wilss 1982 and Koller 1979), and "multicomponential" approaches, which explain translation competence in terms of a number of subcompetences including source-language knowledge, target-language knowledge, subject-area knowledge, research skills, technological skills, and decoding and encoding skills (Lee-Jahnke 1997 is cited among examples of this approach). Pym criticises the summation model for failing to provide an account of what is *specific to translation competence* over and above the linguistic competences it presupposes. The multicomponential idea also fails on this count, with the added criticism that it is open-

ended and that "there is virtually no limit to the number of things that may be required of a translator" (Pym 2002: 5).

In his review of the research literature, Pym identifies a third approach to defining translation competence. This he calls the "supercompetence" concept, i.e. the idea that translation competence is a separate and distinctive skill which the translator must possess *in addition to* linguistic expertise and subject-area knowledge. Such an approach is favoured by Pym himself. "What we need," he argues, "beyond lists and systems, is a concept that might define translating and nothing but translating" (2002: 7). In order to produce such a definition, Pym refers to an earlier study (1992) in which he defined translation competence as comprising the following two skills: "the ability to generate a series of more than one viable target text (TT_1, TT_2 ... TT_n) for a pertinent source text (ST)" and "the ability to select only one viable TT from this series, quickly and with justified confidence" (2002: 8; see also Pym 1992: 281). By this definition, translation competence is a process of generation and selection. It is a problem-solving process in which a variety of solutions are put forward and the most viable of these selected. Pym argues, furthermore, that translation is a field in which errors are generally non-binary in nature, i.e. "there are at least two right answers and then the wrong ones" (Pym 1992: 282), as opposed to binary errors where "there is only right and wrong".

When Kiraly describes translation as an 'ill-structured knowledge domain', he has in mind something similar to Pym's notion of non-binarism. This is also reminiscent of Nord's 'offer of information' discussed on page 16 above. What Pym, Kiraly and Nord have in common is the idea that there are multiple interpretations of and multiple solutions to any translation problem. This definition of translation as a field in which no two problems and no two solutions are the same has important instructional implications. If a knowledge domain is ill-structured and characterised by non-binarism, then the instructional situation should be designed to support learners in the production and selection of solutions. This can be achieved through group-learning techniques where students provide multiple perspectives from which they construct their own knowledge of and solutions to the problem at hand. Pym (2002) gives an example of a group of students discussing the problem of how to translate the Spanish terms *convalidar* and *homologar*

into English. They first generate a number of possible target-language translations. A solution (*accreditation*) is selected by the students, following discussion of parallel texts in English, consideration of the purpose to which the target text is to be put, and evaluation of the relative merits and drawbacks of the various suggestions. Similarly, Kiraly describes a group-learning situation in which students construct their own translational knowledge through "conversational activities involving the presentation of multiple perspectives, negotiation, debate, and constructive criticism" (2000: 63). The final translation is discussed, debated and negotiated among group members. The aim is not to produce a 'correct' translation, but rather one that is 'viable' i.e. is acceptable to the group as appropriate to a particular readership in a particular context at a particular time.

2.2.5 Group Learning and the Acquisition of *Translator* Competence

Group-learning techniques also assist in the acquisition of *translator* competence, defined by Kiraly as the ability "to act (communicate) successfully within parallel expert communities in different linguistic-cultural communities" (2000: 13). Like Kiraly, Colina argues that translator education must aim to produce professionals who "function within a professional group in accordance with the norms and expectations of the group" (2003: 38). She cites Toury (1995), who suggests that the process of becoming a translator entails gaining recognition within a particular sociocultural environment. This "involves the acquisition of those norms which are favoured by the group that would grant the recognition" (Toury 1995: 241). While it might be tempting for an instructor to attempt to impose rigid translational norms, such an approach does not prepare fledgling translators for membership of a professional community. Toury argues that graduates who have received this kind of instruction "often have to undergo a painful process of forgetting much of what they have been taught" (ibid.: 255) when confronted with the norms and conventions of the community they wish to join.

Kiraly (2000: 33) emphasises the role of the collective in the process of enculturation, maintaining that norms can only be appropriated when knowledge of the domain is constructed collectively through the process of interacting with peers and experts (see further Section 2.4.2, page 39ff. for Brufee's concept of 'reacculturation'). Thus, group

work achieves two aims: "meaning-making on the part of the group as well as the appropriation of cultural and professional knowledge on the part of each individual group member" (ibid.: 36; cited on page 21 above). In the translation workshop class advocated by Kiraly, students undertake authentic translation projects, in which all aspects of the task, from background research through target-text production to editing and revision, are carried out collectively. He argues that project-based workshop classes of this kind can provide an initiation into translation as a professional enterprise. Students working together on authentic translation tasks "will automatically be confronted with problems concerning how to act in a professional manner and they will learn together how to resolve those problems" (ibid.: 31). This process is supported by the presence of the instructor and, where possible, outside experts as representatives of the professional translation community. Colina (2003) likewise recommends contact with the translation community through participation in e-mail lists, subscription to professional publications, and exposure to various kinds of feedback including peer assessment and the input of professionals who are invited as consultants to the class.

The ability to work as a member of a team may be considered an integral part of translator competence. While this point is not emphasised by Kiraly, several authors draw attention to the fact that teamwork plays a pivotal role in the authentic translation workplace (see e.g. Vienne 2000, MacKenzie and Vienne 2000, and Nord 2005). Vienne, for example, argues that in their future professional lives students "will overwhelmingly have to work in co-operation with other translators" (2000: 96). Notwithstanding the fact that the greater part of the actual translation task goes on in the individual translator's mind (cf. Mossop 2001: xv), professional translators must liaise with colleagues when translating different parts of a larger document or when translating the same source text into a number of target languages. This is illustrated by Kelly (2005) in her definition of the interpersonal competence required of the professional translator as the:

> ability to work with other professionals involved in [the] translation process (translators, revisors, documentary researchers, terminologists, project managers, layout specialists), and other actors (clients, initiators, authors, users, subject-area experts). (2005: 33)

The recognition that teamwork and group skills are key requirements of the professional translator further reinforces the importance of group learning in the translation classroom. Hence, Nord (2005) calls for the organisation of group translation projects during training "where each student has the chance to play various roles: that of client, of revisor, of terminologist, of documentation assistant, of free-lancer, of in-house translator working for a translation company, etc." (2005: 218).

2.2.6 Implementing Functionalist and Social Constructivist Principles in an Online Translation Classroom: Conclusions and Some Questions

A number of principles for a conceptually-sound approach to the training of translators have emerged in this section. The functionalist school recommends a focus on the purpose of the target text, provision of a translation brief, access to a wide range of relevant translation tools, analysis of authentic parallel texts in the target language, and promotion of team work and management skills through the implementation of translation projects. To these, the social constructivist approach adds an emphasis on the principles of authenticity and group learning. Students should be required to undertake 'real-life' translation projects in all of their authentic complexity. Such projects should be carried out in groups where the encouragement of discussion and negotiation will facilitate the acquisition of both translation and translator competence. The teacher's role in this scenario is to scaffold the learning process by supporting students in constructing their own interpretations and translation strategies.

This study asks whether such principles can be applied successfully in an online learning environment. Some questions arise in relation to the social constructivist approach in particular. It is important to note, for example, that Kiraly is sceptical about the potential of the online medium to support the type of group learning he envisages for the project-based translation exercise classroom. He argues that because computer-based communicative interaction at a distance takes place "in the absence of many of the normal discourse and information-carrying cues" (2000: 128), it is likely that many-to-many interaction will "give way to one-to-one communication, with pairs of students communicating via email or networked chatting functions" (ibid). As a result, Kiraly believes that groups of students need to meet physically and "discuss their work in face-

to-face dialogue" (ibid.). One of the purposes of this study is to test Kiraly's assertions regarding online group learning and to determine whether such learning can, in fact, occur successfully online.

The structure of group work poses another question. Two reasons for the integration of teamwork and group learning in translator training have emerged in this section. The first may be termed the 'pedagogic' argument – students learning in groups help one another to construct knowledge and learn the skills required of the professional translator. The second is the 'workplace' argument. Because professional translators work with other translators, trainees should learn teamwork and group management skills by undertaking group-based projects. These two approaches have important, and divergent, instructional implications. The 'workplace' argument suggests that students should interact in small groups to create a group translation, with each member assuming a different role – that of terminologist, translator, reviser, project manager – as this is what happens in the authentic translation workplace. The 'pedagogic' argument implies a less structured approach and allows for the production of translations on an individual or group basis. Students work in parallel on the same tasks and provide both cognitive and emotional support to one another through dialogue and conversation. Kiraly draws on representatives of both approaches, yet he makes it clear that his strong preference lies with the less-structured 'pedagogic' approach to the creation of a group product (see Kiraly 2000: 7 and see also Section 2.4.2 below). However, as González Davies points out, there is room on the translation curriculum for both 'real-life' tasks "that imitate professional assignments, or take the professional world into the classroom" (2004: 19) *and* pedagogic activities that "help to explore and practise the skills that will enable the students to perform according to professional standards later on" (ibid.).

The designer of Web-based translator training who accepts the principle of group learning is faced with a number of questions. What type of group structure should be implemented? How large should groups be? Should the learning product be created on an individual basis or should there be a group artefact? Should individual roles be assigned? While Kiraly insists on the importance of a 'hands-off' approach, this may not be appropriate in an environment where students are struggling with multiple technical,

social and learning challenges when faced with new subject matter in an online environment.

Before we look to the educational literature on group-learning structures, the next section of the chapter examines the nature of text-based, asynchronous, computer-mediated communication in order to show how it may be used to support group learning in the virtual classroom.

2.3 Computer-Mediated Communication and Group Learning

The online environment may not initially appear to be an obvious vehicle for group learning. When it first made its appearance on the educational stage in the late 1980s/early 1990s, it was viewed as an extension of distance learning and was "characterized by a kind of electronic correspondence study" (Dirkx and Smith 2004: 133) in which learners interacted with large volumes of printed material and, occasionally, with an instructor. Over time, e-learning was seen to offer certain advantages over its older, distance-learning relation. In addition to the power of the World Wide Web to deliver vast quantities of information by electronic means, it was the ability "to provide a means for the weaving together of ideas and information from many people's minds, regardless of when and from where they contribute" (Kaye 1989: 3) that came to be recognised as the key potential of this new educational medium. Finding ways of harnessing this potential continues to be seen as the most important challenge to the instructional designer. Palloff and Pratt argue, for example, that in online instruction "the construction of a learning community, with the instructor participating as an equal member, is the key to a successful outcome" (1999: xvi).

In its broadest sense, computer-mediated communication (CMC) is any kind of text-based discourse in which messages are transmitted and received using computer technology. Some writers include video, audio and graphics in their definition of computer-mediated communication, but Harasim stresses that most educational networks are text-only (1996: 3). Paulsen's definition of CMC includes "information retrieval, electronic mail, bulletin boards, and computer conferencing" (1995: 3), while others use the term in the narrower sense of email communication and computer conferencing only

(cf. e.g. Kaye 1989). In many educational publications (e.g. Warschauer 1997), use of the term 'CMC' is restricted further to asynchronous, text-based computer conferencing supporting many-to-many communication. It is this latter definition of CMC that is employed throughout the present study: computer-mediated communication that is text-based, asynchronous and many-to-many.

The following paragraphs aim to demonstrate the suitability of CMC to the facilitation of group learning. This fit between the medium and the method is emphasised by Levinson who favours the term 'computer conferencing' over 'computer-mediated communication', as it "accentuates the inherent 'groupness' of this educational medium" (1990: 7) and by Harasim who states that CMC is meant not for drill-and-practice exercises, but "for the sharing and building of ideas, information, and skills among the participants" (1996: 24).

2.3.1 Text-Based Communication

Computer conferencing may be distinguished from most other forms of human communication by virtue of the fact that all exchanges occur through writing and reading words on a computer screen. The computer transmits and stores text-based interactions, creating a permanent archive of all exchanges. Feenberg (1989: 36) describes computer conferencing as "a concretisation of mail and filing technologies" in which the central computer functions "as a remote filing cabinet". Messages are organised in discussion conferences according to topic, thereby imposing a structure and facilitating easy retrieval. Discussion conferences differ from other computer-supported many-to-many modes of communication, e.g. listservs, where posts arrive chronologically as they are sent, and the triage process is left to the individual recipient.

It has been claimed in the research literature that the type of language used in computer conferencing combines elements of both spoken and written discourse. Salmon suggests that CMC involves "a hybrid of familiar forms of communication" (2000: 18), somewhere between the formality of the written word and the informality of spoken language. Similarly, Ryan et al. (2000: 108) cite Mason's definition of CMC as "preserved conversation" or "say writing", which is more thoughtful and reasoned than

spoken language, but similar to verbal conversation in its potential for interaction and feedback (see Mason 1992b).

The hybrid nature of computer-mediated communication has the potential to alter traditional conceptions of the functions of speech. It has long been recognised that language fulfils two psychological functions: interaction and reflection. On the one hand, we use language to communicate with others and to collectively make sense of experience; on the other, we employ it to reflect on and interpret experience for ourselves. Vygotsky (1981: 163) referred to these as the 'interpsychological' and 'intrapsychological' functions of speech: the first occurs on the social plane between people, the second on the psychological plane within the individual.

Throughout the recorded history of human thought, written language has been viewed as a vehicle for reflection and interpretation. Koschman et al. maintain, for example, "that committing ideas and concepts to writing forces their clarification" (1994: 249). Spoken discourse, on the other hand, has tended to be seen primarily as a means of spontaneous and immediate interaction. Vygotsky sums up the differences between inner speech and written speech as follows:

> Inner speech is condensed, abbreviated speech. Written speech is deployed to its fullest extent, more complete than oral speech. Inner speech is almost entirely predicative because the situation, the subject of thought, is always known to the thinker. Written speech, on the contrary, must explain the situation fully in order to be intelligible. (1986: 182)

Warschauer argues that with the advent of computer-mediated communication, this distinction has become blurred: "The historical divide between speech and writing has been overcome with the interactional and reflective aspects of language merged in a single medium: CMC" (1997: 472). As well as supporting reflection and thought, he suggests, CMC enables human interaction to occur in written form, a form that is "easily transmitted, stored, archived, reevaluated, edited, and rewritten" (ibid.). The permanent written transcript may be regarded as an interactive text which allows participants to re-examine ideas and to make contributions as they occur to them. Arising out of this is the ability to create a group product which goes beyond what individual participants produce

when working in isolation. In this way, computer-mediated communication encourages discussion, debate and mutual understandings, key elements in group learning.

2.3.2 Asynchronous Communication

Computer-mediated communication may occur synchronously (in real time) or asynchronously (with a time delay). Synchronous communication – sometimes referred to as *chat* – requires participants to be online simultaneously. The educational potential of real-time events has been explored by Mason (2001), who discusses the advantages for second-language practice, student presentations and problem-solving sessions. Yet the main use of synchronous communication in educational settings tends to be of a social nature – in building a sense of community or developing social contacts, particularly in distance learning (cf. Ryan et al. 2000: 103).

Unlike synchronous communication, the asynchronous exchange of ideas has the potential to enhance the reflective and interactive benefits of text-based computer conferencing. Indeed, Hiltz in her discussion of the virtual classroom, identifies asynchronicity as "the single most important factor in creating a collaborative teaching and learning environment" (1994: 6/7). The benefits of asynchronous text-based communication in the context of group activity and student collaboration may be classified into two types. Firstly, asynchronous communication has *organisational* benefits. Group projects may be facilitated throughout the students' entire working week, several conversations may be supported simultaneously, and students may initiate conversation with each other and with the instructor at any time. Secondly, and more significantly, asynchronous communication may be said to benefit the actual *learning process*. Warschauer pinpoints the ability "to freeze a single frame and focus attention on it" as one of the great strengths of computer conferencing (1997: 472). In such a medium, participants can take time to reflect on and compose their reactions to discussions and course material. Learners can work at their own pace, evaluate course postings and develop their ideas over time. As a result, interactions tend to be more measured and more thoughtful than in many class-based situations where students are competing with one another for air time. This results in an increased sense of collegiality among participants in an online class. Instructors, for their part, have more time to draft

responses and compose postings to answer student queries and stimulate participant discussion.

2.3.3 Many-to-Many Communication

In his much-cited report on online learning, Paulsen (1995) distinguishes four pedagogical techniques for text-based computer-mediated communication: one-alone, one-to-one, one-to-many and many-to-many. *One-alone* techniques encourage individual students to interact with online resources, viz. online databases, journals and software programs; *one-to-one* techniques facilitate individualised communication between instructor and learner, or between learner and learner; *one-to-many* techniques use bulletin boards to which the instructor posts lecture notes and course announcements; and *many-to-many* techniques provide all participants with the opportunity to post, read and respond to discussion threads.

According to Paulsen, many-to-many interactions in the form of group discussion, debate, role-play and simulations are the most common form of computer-mediated communication in online education. The evidence in the research literature is that many-to-many communication is also the most successful. Palloff and Pratt argue that "the most powerful experiences are those in which interaction occurs throughout the group instead of between one participant and the facilitator with a group setting" (1999: 19). Similarly, Hiltz et al. (2000) describe empirical studies which present evidence that when students are engaged in one-alone or one-to-one techniques in an online setting, which involve receiving postings and sending back individual work, "the results are poorer than in traditional classrooms" (Hiltz et al. 2000: 1). When, on the other hand, participants are engaged in group-learning activities using many-to-many communication, "the outcomes can be as good as or better than those for traditional classes" (ibid.).

The rich potential of computer conferencing lies in the active engagement of all participants in the learning process. This is what Burge refers to as "cognitive synchronicity" (1995: 157), which she considers to be a key criterion for the successful use of conferencing technologies. Computer conferencing provides a forum for multiple perspectives to be elicited and woven together as a rich tapestry for the joint construction

of knowledge. Ideas are formulated into words and shared with others. Meaning and knowledge are negotiated through text-based interaction and discussion. Whereas the power of computer networks is often described metaphorically as the 'information highway', Burge suggests that the weaving loom is a more appropriate image. This echoes the title of Mason and Kaye's book, *Mindweave* (1989), and Kaye's discussion of the potential of CMC "to provide a means for the weaving together of ideas and information from many people's minds" (1989: 3).

Computer conferencing can be used to promote group learning among campus-based and distance-learning students, between students and instructors, and between a virtual class and wider academic and professional communities. In this respect, computer networks may be regarded as a reacculturative tool in the sense that this term is used by Bruffee (see Section 2.4.2, page 39ff below.). He urges us to use computers not only to talk to members of the communities to which we already belong, but also to form transition groups and to communicate "with members of knowledge communities we do not (yet) belong to and aspire to become members of" (Bruffee 1999: 121/2).

In addition to the ability to share insights and co-construct knowledge, computer-supported, many-to-many communication has important psychological benefits. One frequently-cited advantage is the absence of traditional hierarchies in CMC and the ability of all participants to gain an equal hearing. Harasim refers to the "more democratic environment" created by computer networks (1996: 28). Those who are disadvantaged in a face-to-face setting find themselves better able to communicate in a medium that focuses on the message rather than the physical attributes of the sender. This is particularly beneficial to shy or intimidated students who find it difficult to voice their opinions in a classroom setting.

2.3.4 Web-Based Group Learning: Some Disadvantages

Any account of Web-based learning would not be complete without reference to the disadvantages cited in the research literature. Frank, Reich and Humphreys (2003) classify the difficulties experienced by online learners into two main types: technological and social. The former include technophobia, springing from a lack of technical

proficiency/confidence on the part of learners. Social anxiety derives from "the feeling of loneliness, isolation, and lack of face-to-face contact with the teacher" (Frank, Reich and Humphreys 2003: 65). Other drawbacks have a more direct impact on the learning process. Palloff and Pratt refer to the problem of "infoglut" or information overload: "In an overload situation, students and faculty may be inundated with so much poorly managed information that they feel they simply cannot keep up" (1999: 49). This points to the need for clear structure and guidelines in the presentation of course content and the management of online discussions. Paloff and Pratt also cite the reluctance of inexperienced students to contribute due to insecurity about how their messages will be received and interpreted by others (see 1999: 68). A final difficulty relates to decision-making which, according to Harasim, can be "awkward and time-consuming online" (1990: 48).

2.3.5 The 'Community of Inquiry' Model

Before we conclude this section, some words about the 'Community of Inquiry' Model are appropriate (see Anderson et al. 2001, Garrison et al. 2000 and 2001, Garrison and Anderson 2003, and Rourke et al. 1999). This was developed as a model of good practice for the online classroom by a team of researchers at the University of Alberta in Canada, and it will play a central role in the evaluation of group learning in the present study. The Model will be discussed in detail in the next chapter (see Section 3.10) so a brief synopsis will suffice here.

The originators of the 'Community of Inquiry' Model believe that a worthwhile online educational experience takes place within a learning community comprising teachers and students. According to this model, higher-order learning occurs through the interaction of three core elements: social presence, teaching presence and cognitive presence. Garrison and Anderson (2003) stress both the reflective and interactive aspects of learning: "the creation of knowledge in an educational context is", they argue, "a personally reflective and collaborative process made possible by a community of learners" (2003: 22-23). Two properties of Internet-based learning, asynchronicity and connectivity, are seen by the authors as particularly suited to promoting reflection on the one hand, and interaction between learners on the other.

Of the three dimensions of the 'Community of Inquiry' Model, *cognitive presence* is at the core of the educational transaction. It may be defined as the extent to which learners are able to construct meaning "through the dynamic integration of, and iteration between, critical reflection and discourse" (Garrison 2003: 9). *Social presence* supports the cognitive dimension and is defined by Garrison et al. as "the ability of participants in a community of inquiry to project themselves socially and emotionally, as 'real' people (i.e. their full personality) through the medium of communication being used" (2000: 94). This is particularly important in an e-learning context where the visual cues which aid face-to-face communication are absent. Establishing high levels of social presence supports both affective and cognitive goals by fostering "a climate that supports and encourages probing questions, scepticism and the contribution of more explanatory ideas" (Garrison and Anderson 2003: 50). Finally, *teaching presence*, like social presence, supports cognitive activity in the learning community, and consists of three elements: design, discourse facilitation and subject-matter input.

In the last two sections we have examined the contribution group learning can make to the development of professional translation skills and the potential of computer-mediated communication to facilitate such learning in the online classroom. We now turn our attention to the challenge facing the online instructor of how to structure online group activities in ways that maximise the group-learning experience.

2.4 Group-Learning Structures – Face-to-Face and Online

We saw at the end of Section 2.2 above (page 27) that two group-learning models exist for the translation classroom: in a more structured approach, small groups may be asked to create a group translation with each member assuming a different role; a less structured technique requires students to work in groups where the outcome may be either an individual or a group translation, and where participants help one another to construct knowledge and learn the skills required of the professional translator.

It is common in the research literature to label these two methods of group learning 'cooperative' and 'collaborative' respectively. According to Bruffee (1999: 83), cooperative and collaborative learning are "two versions of the same thing", although it

will emerge in this section that fundamental differences do exist between them. Both derive from a constructivist learning model. Central to the two techniques is the idea that constructive conversation is what makes people learn. In both, human relationships are key to the process: students learn by actively working together. The teacher's role in both scenarios is not to transmit knowledge but rather to create conditions which enable learning to occur. This section will examine each approach in turn before moving on to discuss the differences between them and introducing some further dimensions of group learning.

2.4.1 Johnson and Johnson: Cooperative Learning

Let us start with a discussion of cooperative learning, which Johnson and Johnson (1990, 1996 and 1999) distinguish not from collaborative learning but from *competitive* learning. The Johnson brothers identify three types of learning structure: competitive, individualistic and cooperative. The first of these, *competitive learning*, is defined as "the focusing of student effort on performing faster and more accurately than classmates" (1999: 6). This approach is widely practised in educational settings of all kinds, with the result that students tend to perceive the educational experience as a fundamentally competitive enterprise. The second type of structure, *individualistic learning*, involves "working alone to accomplish goals unrelated to and independent from the goals of others" (ibid.: 7). In individualistic settings, the accomplishment of goals by individual learners has neither a positive nor a negative bearing on the learning process of others. In the third type of setting, *cooperative learning*, "students work together to maximize their own and each other's learning" (ibid.: 5). Here the learning outcomes sought by individual learners are beneficial not only to themselves but also to their peers.

While Johnson and Johnson acknowledge the merits of all three types of goal structure, they contend that the three approaches should not be implemented to the same degree in an instructional situation. Cooperative learning, they suggest, should dominate the classroom setting and should be used between 60 and 70 per cent of the time: "the basic foundation of instruction", they argue, "the underlying context on which all instruction rests, is cooperation" (ibid.: 11). They contend furthermore that an individualistic goal structure should be employed approximately 20 per cent of the time, and no more than 10

to 20 per cent allocated to a competitive structure. The authors base their arguments in favour of cooperative learning on research from the field. Their review of 323 studies spanning a period of 90 years finds:

> that generally achievement is higher in cooperative situations than in competitive or individualistic ones and that cooperative efforts result in more frequent use of higher-level reasoning strategies, more frequent gain, and higher performance on subsequent tests taken individually (group-to-individual transfer) than do competitive or individualistic efforts. (Johnson and Johnson 1990: 26)

Five components are identified by Johnson and Johnson as fundamental to cooperative learning: positive interdependence, individual accountability, face-to-face interaction, the appropriate use of interpersonal and group skills and the ability to process how effectively the learning group has functioned. The teacher plays a key role in planning and facilitating each of these elements. In order to structure the first component, *positive interdependence*, the instructor must assign a clear, measurable task, must explain positive goal interdependence (i.e. that students are responsible not only for their own individual learning, but for that of the entire group) and must ensure that other types of interdependence are present (e.g. joint rewards, divided resources, complementary roles). (For more on the concept of 'interdependence', see Section 2.4.4 below.) The second component, *individual accountability*, is ensured when the teacher assesses individual as well as group effort: "the performance of each individual member is assessed, the results given back to the individual and the group" (1996: 1028). The third element of cooperative learning, *face-to-face interaction*, is facilitated by ensuring that groups meet in order to work on the learning task. Face-to-face interaction is characterised by:

> individuals providing each other with efficient and effective help and assistance, exchanging needed resources such as information and materials and processing information more efficiently and effectively, providing each other with feedback in order to improve subsequent performance, challenging each other's conclusions and reasoning in order to promote higher-quality decision making and greater insight into the problems being considered, advocating the exertion of effort to achieve mutual goals, influencing each other's efforts to achieve the group's goals, acting in trusting and trustworthy ways, being motivated to strive for mutual benefit, and establishing a moderate level of arousal characterized by low anxiety and stress. (Johnson and Johnson 1999: 82)

It is interesting to note in the context of the present study that Johnson and Johnson stress the importance of face-to-face communication, which, they say, "has a richness that electronic communication may never match" (1996: 1029). They cite the absence in electronic communication of non-verbal cues such as facial expression and tone of voice. For this reason, Johnson and Johnson conclude that "instructional programs may be most effective when they use face-to-face rather than electronic teams" (ibid.). We are reminded here of Kiraly, who, as we saw in Section 2.2.6 above (page 26), also argues that group learning must take place face-to-face. We will return to this question in Section 2.4.5 below (page 46ff.).

The fourth component of cooperative learning identified by Johnson and Johnson is *interpersonal and group skills.* This refers to the fact that in cooperative learning groups, students must master the subject matter (taskwork) while at the same time learning to function as part of a team (teamwork). The importance of this component is summed up as follows: "If group members are inept at teamwork, their taskwork will tend to be substandard. On the other hand, the greater the members' teamwork skills, the higher will be the quality and quantity of their learning" (1999: 83). The fifth and final element of cooperative learning identified by Johnson and Johnson is *group processing*. This refers to reflection on how well the cooperative learning groups function. Teachers can structure group processing by observing and assessing the quality of interaction among group members, by providing feedback to groups on how well they work together and by encouraging groups to set goals which improve their own effectiveness.

Johnson and Johnson (1999) discuss the pre-instructional decisions which must be made by the instructor in order to ensure the success of the cooperative learning situation. These involve, amongst other things, deciding on group size and on the structure of group interaction. While the authors acknowledge that there is no ideal group size, they do define a basic rule of thumb: "the smaller the better" (1999: 19). There is general agreement in the literature that cooperative learning groups should be no bigger than five or six (see e.g. Damon and Phelps 1989: 12). With regard to structuring group interaction, various types of cooperative learning exist, in particular 'task specialisation' where individual students assume responsibility for a subset of the overall learning task. This is

sometimes referred to as the 'jigsaw' approach and it will feature further in the present study.

2.4.2 Bruffee: Collaborative Learning

In his study, Kiraly draws on representatives of both cooperative and collaborative approaches. However, he makes it clear that his preference lies with the latter. Collaborative learning techniques are more difficult to define than cooperative methods; in the words of Rose (2002: 17), "they include a broad scope of strategies that are not systematic nor prescriptive". She points out that adherents of the collaborative approach do not favour an imposed instructional framework, but share a common belief in the importance to the learning process of social interaction and dialogue.

Bruffee (1999) defines learning as a process of gaining membership of new communities and renegotiating existing ties to other groups. This process Bruffee refers to as 'reacculturation'. Students come to the learning situation "already deeply acculturated, already full-fledged, competent members [. . .] of some community or other" (Bruffee 1999: 4-5). By embarking on a course of study, they are asking to join new communities and our job as instructors is to help them in this process of reacculturation. To take an example central to this study, students enrolled on a postgraduate programme of translator education are striving to gain access to at least two communities: the academic community of their tutors and instructors, and the professional group existing in the translation workplace. At the same time, they are reworking ties to the social, professional and academic communities to which they already belong.

According to Bruffee, reacculturation is difficult to accomplish. Indeed, it is almost impossible to achieve on one's own. However, people can be reacculturated by working together: "What we have to do, it appears, is to organize or join a temporary support or transition group on the way to our goal, as we undergo the trials of changing allegiance from one community to another" (1999: 9). This is the core of Bruffee's argument for collaborative learning. He envisages a collaborative working group as a temporary support unit which assists the individual learner in making the transition from one community to another. In collaborative learning, small working groups are nested within

larger communities: "students construct knowledge socially in small groups. They test the knowledge they have constructed socially, first in the larger community of the class as a whole and then in the much larger professional community that the teacher represents" (ibid.: 91). Collaborative working groups do not receive training in small-group working skills. Nor are they assigned individual roles. Rather they are left to organise their shared efforts and decide themselves who will perform group roles. Furthermore, there is no general agreement in the collaborative learning literature on ideal group size.

In the process of reacculturation, learning occurs when the boundaries between different knowledge communities are breached (see Bruffee 1999: 118). On the journey from novice to expert, the learner's relationship to the community evolves as he/she moves from periphery to centre. Duffy and Cunningham define learning as "a matter of changes in one's relation to the culture(s) to which one is connected [. . .] a transformation from newcomer to old timer" (1996: 178). Brown, Collins and Daguid (1989) also regard learning as a process of entering a community and its culture. They point out that this process, which they refer to as 'enculturation', occurs repeatedly throughout our lives; it is "what people do in learning to speak, read, and write, or becoming school children, office workers, researchers, and so on" (1989: 33-4).

Language and discourse are central to this view of learning. Gaining membership of a new community means acquiring fluency in the language of that community. Bruffee argues that reacculturation involves "intense, flexible linguistic engagement" (1999: 154) with the communities to which learners already belong and those they are striving to join. In the classroom situation, a collaborative learning group constructs its own language, "a transitional working language" (ibid.: 207), in order to engage in conversation and to undertake the task at hand. Through conversation, students are obliged to justify the individual beliefs and preconceptions which they bring to the group and to reconcile differences between their own beliefs and those of their peers. They also learn to use language in a way that approximates language usage in wider academic and professional communities. On this point, Mercer (1995) distinguishes between *educational discourse*, i.e. the language of teaching and learning in classroom settings, and the *educated discourse* engaged in by wider communities outside the classroom. The aim of education,

he argues, is not merely to engage learners in educational discourse, although this is a worthy end in itself; it is to help students to develop "'ways with words' which will enable them to become active members of wider communities of *educated discourse*" (Mercer 1995: 80; italics in the original).

The role of the instructor in such a scenario is to "help students acquire fluency in the language" of the communities they are striving to join (Bruffee 1999: 154). The reacculturative instructor designs collaborative tasks in order to encourage community building amongst students. The instructor's authority derives not, as in more traditional views of learning, from possession of knowledge which the learner is attempting to acquire, but from membership of wider professional and academic communities and fluency in the language of those communities.

2.4.3 Differences between Cooperative and Collaborative Learning

Distinctions between collaborative and cooperative learning are somewhat blurred by the fact that the terms are occasionally used interchangeably in the research literature. Koschmann et al., for example, treat cooperative learning as a subcategory of collaborative learning (1994: 255). Similarly, Curtis and Lawson label the approach taken by cooperative learning champions Johnson and Johnson as 'collaborative' on the basis that the latter use the term 'cooperative learning' "to describe the higher level processes that [others] would label collaborative" (2001: 22). McConnell (1994) refers only to two views of 'cooperative learning' which he sees as a continuum between two extremes characterised by the degree of structure, the extent of teacher control and the type of motivation (see also Figure 2.1, page 43 below). Despite the apparent interchangeability of the two categories, however, it will now be shown that important differences *do* exist between the two positions.

Bruffee (1995 and 1999) underlines two fundamental distinctions between collaborative and cooperative learning. The first relates to sequence: cooperative learning, he suggests, tends to be used in primary schools when teaching basic information and processes, while collaborative learning is more suited to college and university students and more complex subject matter. This linear relationship between the two approaches is best encapsulated

in the following statement: "with regard to the educational career of any individual person, collaborative learning picks up where cooperative learning leaves off" (Bruffee 1999: 87). Panitz (1996) disagrees with Bruffee on this point. In his article on collaborative versus cooperative learning, he argues that the transition from cooperative to collaborative learning should be seen as a continuum "from a closely controlled, teacher-centered system to a student-centered system where the teacher and students share authority and control of learning" (Panitz 1996: 3) rather than as a linear progression determined by age and educational levels. After all, he argues, practitioners at all levels use the two approaches. Nevertheless, most research into cooperative learning has been carried out in schools (see McConnell 1994: 21), suggesting that it is far more widely used there than at college and university levels.

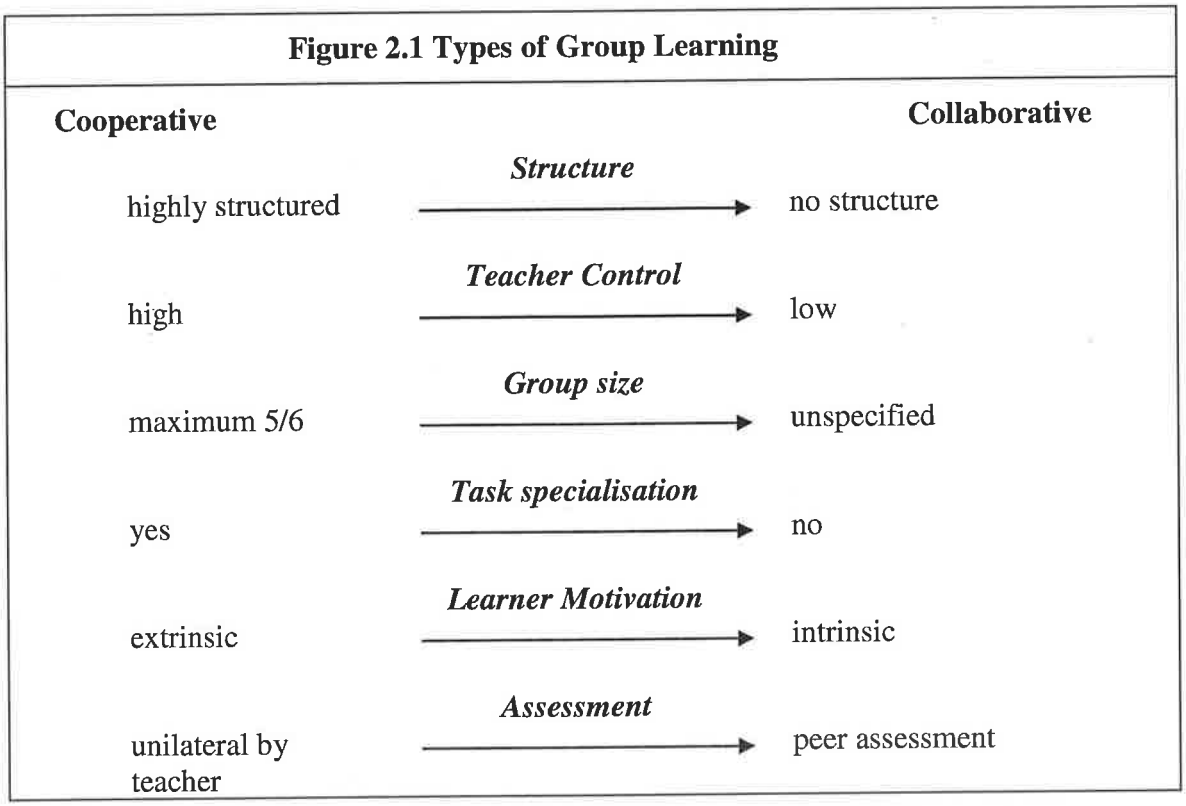
The second disparity identified by Bruffee relates to the role of the teacher. In a cooperative learning scenario, the instructor retains control over the learning situation by deciding what and how students are to learn, and holding them accountable for collective learning. It is this aspect of cooperative learning which causes Kiraly to state that it is "completely at odds with the constructivist approach that I am proposing" (2000: 38). He argues that the highly structured, teacher-centred methodology of the Johnson brothers differs fundamentally from the one favoured by him "because it leaves virtually complete control of class content and organization with the teacher" (ibid.). According to Bruffee, collaborative teachers, unlike their counterparts in the cooperative classroom, do not assign individual roles to learners; they rarely intervene in working groups; they do not evaluate group process; and while they grade students, they do so individually on the basis of what the student knows and can do following the collaborative learning experience.

Some theoreticians point to reward structure as a further difference between cooperative and collaborative approaches. The former tend to be based on 'extrinsic' motivation i.e. the idea that learners will be motivated to participate in groups in pursuit of better grades or other externally held rewards (see McConnell 1994: 20). Furthermore, in cooperative learning scenarios, teams of students often compete with one another for extrinsic rewards. Collaborative learners, on the other hand, are generally motivated by an

'intrinsic' reward structure arising from their interest in learning and the benefits they perceive to accrue from group interaction.

As noted above, the boundaries between cooperative and collaborative learning are fluid, and some authors do not distinguish clearly between the two terms. It is also true that instructors can and do pick and choose from both positions. For this reason, it may be most useful to regard the two as a continuum between a more structured (cooperative) and a less structured (collaborative) approach to group learning. The following Figure adapts McConnell's 'Dimensions of Cooperative Learning' (1994: 21) to present the two learning structures on a scale from more structured to less structured.

Figure 2.1 Types of Group Learning

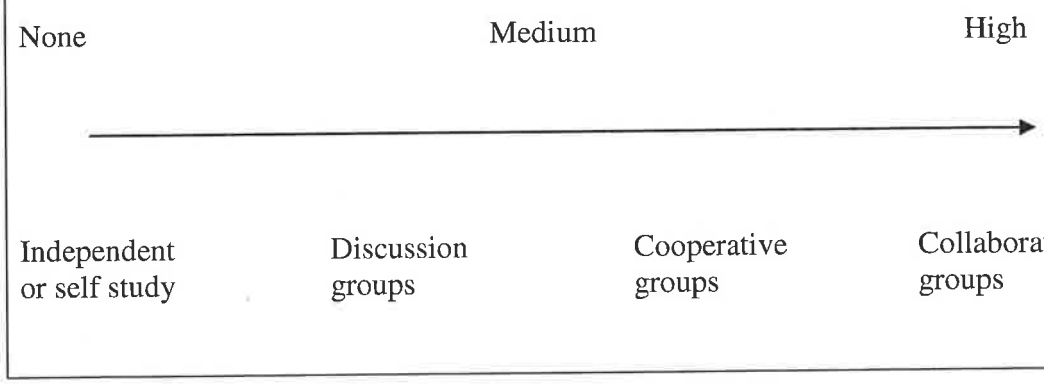


2.4.4 The Concepts of 'Interdependence' and 'Mutuality': Discussion Groups

Thus far in this section, there has been no discussion of the learning product. Yet, it was argued in Section 2.2.6, page 28 above that the question of whether the learning product resulting from group interaction is to be created on an individual or group basis is one of the key planning issues facing the designer of Web-based group learning. On the basis of

our examination of cooperative and collaborative learning, it is clear that while the task specialisation that characterises cooperative learning will always lead to the creation of a group artefact, the end result is less obvious in the case of collaborative group learning, which may result in either a group or an individual artefact (although Kiraly clearly has in mind a group product). This brings us to the concept of 'interdependence', defined by Graham and Misanchuk as learners' "dependence on each other to accomplish the learning goals" (2004: 183) (for Johnson and Johnson's use of the term 'interdependence', see Section 2.4.1 above). In the following Figure, adopted from Graham and Misanchuk, 4 types of learning structure on a scale from no interdependence to high interdependence are presented.

Figure 2.2 Level of Interdependence in a Learning Environment



Source: Graham and Misanchuk (2004: 184)

The low end of the spectrum shown in Figure 2.2 is typical of independent or self-study programmes where learners are only dependent on themselves (and perhaps a grader) to achieve their learning goals. At the opposite end of the scale, Graham and Misanchuk place collaborative groups which "have a common purpose", where "all group members contribute to all significant aspects of the group's work" (ibid.: 183) and where a group grade is issued for the learning product. Instructional strategies displaying medium levels of interdependence include discussion groups and cooperative groups. According to Graham and Misanchuk, discussion groups can involve a range of interdependence but "typically individuals are assessed on their individual insights and contribution" (ibid.: 184). Finally, cooperative groups have a "'divide and conquer' mentality where the group

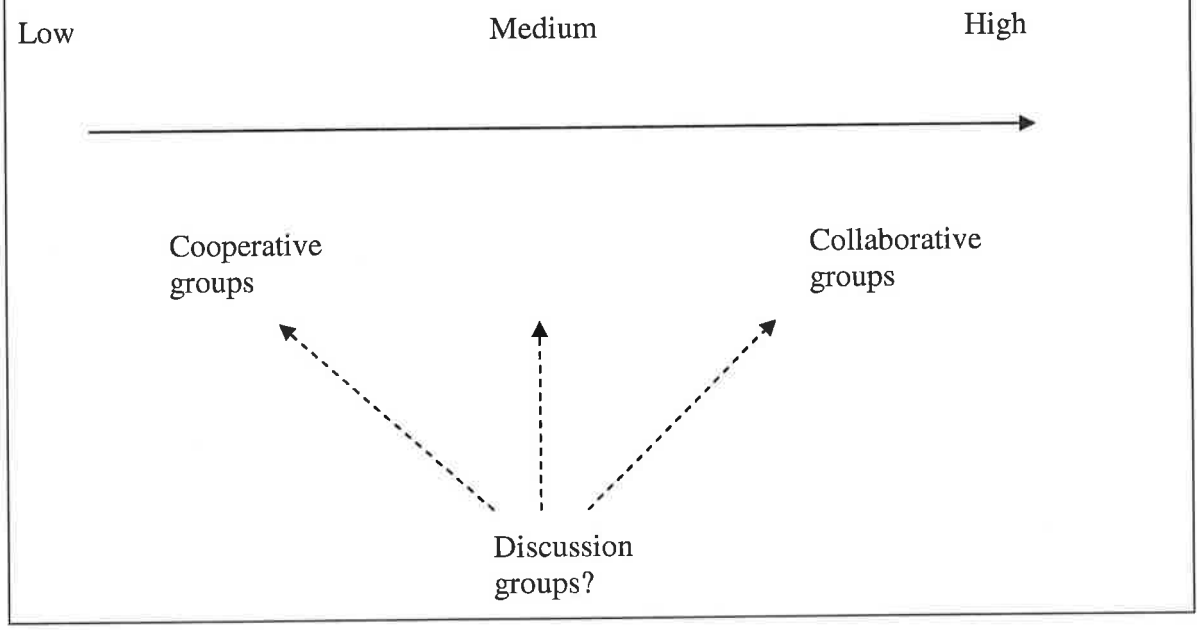
divides the work into chunks that can be done independently, and then assigns the pieces to individual group members" (ibid.). Graham and Misanchuk argue that in groups of this kind interdependence tends to occur mainly at the administrative level where decisions are made on such matters as task division and allocation.

To summarise Graham and Misanchuk's arguments, there are three types of group-learning structure: discussion groups, cooperative groups and collaborative groups. These terms will be adopted in the present study to label the structures implemented to support group learning in the online translation classroom. The term 'discussion groups' will be used to refer to large groups of online learners who provide cognitive and emotional support to one another while working simultaneously on the same task and engaged in the creation of individual learning products. The term 'cooperative groups' will refer to small groups of online learners (between 2 and 4 students) engaged in the production of a group artefact where the work is divided into chunks done independently by group members. The term 'collaborative groups' will also refer to small groups of online learners engaged in the production of a group artefact, but in this case group members work synchronously and in parallel on all aspects of the task.

While 'interdependence' refers to the extent to which learners are involved in the creation of a group product, a further useful term in this context is 'mutuality'. This is defined by Damon and Phelps as the degree to which group members are connected with one another and participate in discourse which is "extensive, intimate, and connected" (1989: 10). According to Damon and Phelps, learning activities which involve task specialisation impact negatively on mutuality because they result in much of the work being done on an individual basis. The authors argue that in a cooperative scenario higher levels of mutuality can only be achieved if learning arrangements "focus on intragroup discussion around task solutions rather than on task subdivision, intergroup competition, and extrinsic reward" (ibid.: 13). In a collaborative learning arrangement, on the other hand, where there is no subdivision of tasks, a learning engagement comes about which "is rich in mutual discovery, reciprocal feedback, and frequent sharing of ideas" (ibid.). Thus, in its ideal manifestation, collaborative learning leads to higher levels of mutuality than cooperative learning.

Damon and Phelps give no consideration to discussion groups where members work simultaneously on the same problem but where the ultimate outcome is an individual learning product. These are similar to collaborative groups in terms of structure (low), task allocation (none) and the intrinsic motivation to participate, but differ in terms of the learning product. As illustrated in Figure 2.3 below, this study asks where discussion groups should be placed on the scale of mutuality in relation to cooperative and collaborative-group structures. It also asks whether Damon and Phelps' assertion that levels of mutuality are higher in collaborative groups than in other group structures holds true when groups work online and interact solely by means of asynchronous text-based computer-mediated communication.

Figure 2.3 Level of Mutuality in a Learning Environment



2.4.5 Implementing Group-Learning Structures in an Online Environment

In this section, we turn our attention to an examination of what the research literature reveals about the comparative merits and drawbacks of discussion-group, cooperative-group and collaborative-group structures when deployed in an online setting. Two interrelated issues quickly become apparent. Firstly, as already noted, some of the

champions of group learning discussed in this chapter are sceptical about the feasibility of implementing the instructional strategies they propose in a virtual setting (for Kiraly's views on the subject, see page 26 above, for Johnson and Johnson's, see page 38). And secondly, only a small amount of work has been done analysing online group-learning structures. According to Graham and Misanchuk, while a lot of research has been carried out on group work in a face-to-face environment, "there is little research in the field of education that has focused specifically on computer-mediated groups" (2004: 182). In a similar vein, and in the same collection of essays, McInnerney and Roberts state that "while there is already a vast literature about the theory and practice of online learning, there is less information about online collaborative and cooperative learning" (2004: 211).

An early exception to this is the work of Henri and Rigault (1996), who distinguish between 'telework' and 'telediscussion' conferences. The former usually comprise a small number of students – 3 to 5 – and are set up with the aim of enabling joint projects to be carried out on either a cooperative or a collaborative basis within the framework of a computer conference. 'Telediscussion' conferences, on the other hand, consist of a larger number of participants – at least 15 – who are working individually but in parallel on the same task. The sharing and comparing of information in a telediscussion-type conference is based on the intrinsic interest of each member in completing the task, albeit on an individual basis. Such conferences may be said to have a 'discussion-group' structure as defined in the last section.

Henri and Rigault (1996: 50) refer to studies showing that adult learners in distance education tend to favour the 'telediscussion' model. This is because it enables them to complete tasks at their own pace without having to grapple with group dynamics. At the same time, students profit from being part of an online community, sharing information while working simultaneously on the same tasks. Group structures that attempt to create high levels of interdependence are singled out for criticism by Henri and Rigault because of the logistical demands placed on online learners and their mentors:

> in striving to achieve very interdependent group functioning, [such structures may] worsen the distant learners' constraints, increase their needs for supporting their process and compelling the distance education institution to assist these groups adequately. (Henri and Rigault 1996: 50)

More recently, Roberts (2004) published a collection of essays entitled *Online Collaborative Learning: Theory and Practice*, containing a number of contributions which examine the success of different group structures in an online learning environment. The findings presented in these studies are not always positive, especially when it comes to the creation of a group product. Graham and Misanchuk (2004) observed groups in a distance Master's degree programme who were assigned a joint project and were asked to determine what type of approach (i.e. cooperative or collaborative) they would take for completion of the task. The two authors identify "a tension" (2004: 193) within online learning groups between task time and learning, i.e. between the time devoted to carrying out an assignment and that dedicated to the discussion of actual learning issues. This tension relates to the level of interdependence within groups:

> The higher the level of interdependence between group members, the greater the communication overhead required to complete the learning task. Conversely, individual learning can be compromised if there is limited interdependence in a learning group. (2004: 193)

To their disappointment, Graham and Misanchuk found that a majority of groups "chose an efficiency focus over a learning focus" (ibid.: 194). In other words, they opted for a cooperative approach by dividing the work into chunks and assigning these on the basis of group members' strengths. In this way, the efficiency of the group process was increased by reducing the amount of communication needed to complete the task. At the same time, the authors argue, students failed to reap all the benefits of group learning which would have resulted from a collaborative approach. This outcome echoes an earlier study by Kitchen and McDougall who found that online groups abandoned collaborative interaction in favour of a cooperative approach, dividing duties on the basis of members' existing strengths and opting for task specialisation "in the interests of accomplishing the task" (1999: 252). This resulted in a quick product but did not enable students to share knowledge and skills with one another.

Also in Roberts' collection of articles, Dirkx and Smith (2004) investigate student attitudes to online group learning and come to some interesting conclusions. In a case-study approach, they examined the experiences of 26 online students on a graduate program in higher and adult education. Students were assigned to groups of 3 to 4 and each group was presented with three 'real-life' problems. The task required the production of a written report specifying the group's interpretation of and proposed solution to each problem. Dirkx and Smith use the label 'consensus group work' to describe the group-learning structure employed in the study: "it is only through consensus that the members of the group are required to listen, hear, understand and finally accept the viewpoint of fellow group members" (2004: 137). In terms of the terminology used in this study, we may say that the groups displayed a 'collaborative-learning' structure as there was no task subdivision and group members were expected to contribute equally to all aspects of the task.

The most significant finding of Dirkx and Smith's research is that students hold ambivalent, not to say negative views of online collaborative learning. The authors state: "most of our online students express dissatisfaction with group work, and they often find various ways to convert what is intended to be a collaborative activity into a collection of individual efforts" (Dirkx and Smith 2004: 138). An important finding for our study is that it is not the interaction *per se* that students object to. They welcome the opportunity to "share their perceptions and experiences, to be listened to and heard by others" (ibid.: 140), but what they want ultimately is individual responsibility and personal accountability for their own learning. According to Dirkx and Smith, "it is not so much working in groups that concerns our learners, as it is working together to accomplish group goals or producing a common product, such as writing a report together" (ibid.: 139). One participant in the study distinguished between knowledge creation and product creation. Knowledge creation, she stated, was "the part of the group work that I really like"; product creation, on the other hand, she found frustrating "because I have less patience for [it]" (ibid.).

Reasons cited by the students in Dirkx and Smith's study for their dislike of online group work included the difficulty of getting all group members to pull their weight; the time

required for the creation of a joint product; the feeling that they could produce a higher quality outcome if left to their own devices; the expectation that in distance learning they would be able to work at their own pace and schedule; the difficulty of agreeing procedures and achieving consensus online; interpersonal differences; technical difficulties; and the impersonal nature of the online medium.

Dirkx and Smith point the finger of blame at students for persisting in the belief that "the individual learner should be the primary focus of the process, and that others are helpful to one's learning so long as one is only accountable to one's self" (ibid.: 142). What students need, the authors argue, is "a paradigm shift that most seem unwilling or unable to make" (ibid.). However, rather than dismissing the concerns of online learners, it is this researcher's contention that we should take note of their views. In each of the studies cited in this section, learners express a preference for individual responsibility for the learning product. In the words of Dirkx and Smith, "not being able to act on their own subjectivity in completing the assignment appears to be a major source of the dissatisfaction and unhappiness with group work" (ibid.: 150). We saw that in Henri and Rigault's study, learners valued 'telediscussion' conferences where they could benefit from being part of an online learning community without having to struggle with the dynamics of creating a group product. Graham and Misanchuk's research showed that where given a choice of techniques for the production of a joint report, most students will opt for a cooperative rather than a collaborative structure, because in this way, they take on individual responsibility for chunks of the overall task. This finding is backed up by an earlier piece of research by Kitchen and McDougall. Finally, Dirkx and Smith's study makes it clear that it is not the interaction *per se* that online learners object to, but the requirement that they work together to achieve group goals.

Although Dirkx and Smith (2004: 133) cite some evidence that ambivalence towards group work is also a feature of the face-to-face environment, it seems from the studies cited here that online technologies accentuate the problem. It is possible that research on group-learning structures showing that higher levels of interdependence lead to higher levels of mutuality, and hence learning, may not apply equally in an online learning environment due to distance learners' expectations, the impersonal nature of the medium,

and, most importantly, the difficulty of reaching a consensus online. The present study sets out to examine these issues in the context of a Web-based translation exercise module.

2.5 Chapter 2: Concluding Remarks

This chapter has provided a rationale for building group-learning tasks into the design of online translator education. Recent theoretical approaches to translation didactics show that if the learning experience is to prepare fledgling translators for the professional workplace, then it must involve training in teamwork and social skills. Group-learning tasks enable students to acquire translation competence and to develop the cultural and professional knowledge and skills appropriate to the translation profession.

An understanding of the advantages and disadvantages of e-learning underlines the importance of creating an online community of inquiry. Computer-mediated communication can be used as a vehicle for both reflection and interaction. Deployed in the right way, it has the potential to support discussion, debate and collective understanding, all key elements in group learning. At the same time, participants who feel alienated by the lack of personal interaction in the virtual classroom, and may be struggling with technical demands, will benefit in motivational terms from the creation of an online community. Getting students to interact and work together addresses a human need for social support, which in turn facilitates the learning process by creating a climate in which participants are willing to ask questions and contribute ideas.

This chapter has shown that there are a number of group-learning structures for the instructional designer to choose from. In all, three techniques have been identified for use in the online translation classroom. *Discussion groups* are large groups of students who provide cognitive and emotional support to one another while working simultaneously and in parallel on the same individual learning products. *Cooperative groups* are small groups of students (between 2 and 4 members) engaged in the production of a group artefact where the work is divided into chunks done independently by group members. Finally, *collaborative groups* also comprise a small number of learners and also work

towards the creation of a group product; however, in this case, the task is not subdivided and members work in parallel on all aspects of the assignment.

We move on in the next chapter to discuss the research methodology employed in the present study. Chapter 3 will describe the research setting, it will define the research questions and it will provide an overview of the data collection and analysis techniques used to investigate group learning in the online translation classroom.

3 Research Methodology

Research, regardless of the discipline, may be defined as "systematic, critical and self-critical enquiry which aims to contribute to the advancement of knowledge and wisdom" (Bassey 1999: 38). The approaches which may be employed in the pursuit of knowledge and wisdom are many and varied, and Silverman defines a 'methodology' as "the choices we make about cases to study, methods of data gathering, forms of data analysis etc. in planning and executing a research study" (2001: 4).

The purpose of this chapter is to describe and explain the methodological choices made by the present researcher in order to investigate group learning in an online translation classroom. The chapter begins with a reiteration of the research questions. It then turns to a broad discussion of case-study methodology, which is frequently used in educational research and which is the basic approach taken in this study. The distinction between quantitative and qualitative research methods is introduced and elaborated upon in this context. The chapter then adopts a narrower focus by turning to finer points of the research design employed in the study, providing details of the setting and participants, and discussing the data collection and analysis techniques used to investigate the research questions.

3.1 Research Questions

The main question of interest in the study may be formulated as follows: 'What is the impact of task structure on the development of group learning in an online translation classroom?' Three types of group-learning structure were identified in the Literature Review in Chapter 2. These were termed 'discussion groups', 'cooperative groups' and 'collaborative groups' respectively. The study asks which of these is most effective in promoting the acquisition of translation skills and knowledge by students interacting via text-based asynchronous computer conferencing in a virtual learning environment.

During the course of the study, conclusions will also be drawn about a number of subsidiary questions. These may be defined as follows: 'What methodologies exist for investigating group learning in an online environment?'; 'What are the advantages of

Web-based delivery of translator training'; and 'What are the disadvantages and challenges arising from this approach?'

3.2 Case Study Methodology

Case study methodology is firmly rooted within the empirical tradition of research, i.e. it focuses on 'real-life' experiences and processes rather than on ideas and concepts. Cohen et al. (2000: 185) talk of a "boom industry in case study research" since the 1970s arising out of "antipathy among researchers towards the statistical-experimental paradigm" (ibid.). In the latter more traditional type of empirical research, the natural order of things is deliberately interfered with in order to create experimental conditions in which 'independent' variables may be manipulated, 'dependent' variables measured, and general conclusions drawn about the class of people or phenomena under investigation (see Fink 1995: 47-49 for a discussion of dependent/independent variables). The data collected and analysed in these circumstances is subjected to statistical measurement techniques which count quantities in order to test hypotheses (see also Section 3.3 below).

Unlike experiments, case study research is "unashamedly particularistic and descriptive" (Mason 1992a: 111). The focus is on a specific case, defined by Gillham as "a unit of human activity embedded in the real world" (2000: 1). A case, according to Gillham, can be an *individual*, it can be a *group* or it can be an *institution*. Moreover, the focus may be on a *single* case or on *multiple* cases. With its emphasis on the unique and the specific, case study research does not attempt to generalise findings to the whole population of which the individual case is an example. Nor does it begin with a hypothesis which the investigation sets out to test. Rather it seeks to provide a rich description of a specific case, or, in the words of Cohen et al., "to probe deeply and to analyse intensively the multifarious phenomena that constitute the life cycle of the unit" (2000: 185).

An important distinction in this context is that between quantitative and qualitative research methods (see also Section 3.3 below). The simplest way to define quantitative methods, which are typically used in traditional experimental research, is to say that they measure and count *quantities*. The aim of quantitative research, according to Williams

and Chesterman, is "to be able to say something about the generality of a given phenomenon or feature, about how typical or widespread it is, how much of it there is; about regularities, tendencies, frequencies, distributions" (2002: 64). Qualitative research, on the other hand, of which case study is an example, assesses the *quality* of something, i.e. "how people understand themselves, or their setting – what lies behind the more objective evidence" (Gillham 2000: 7). In the words of Williams and Chesterman, qualitative research can contribute to our understanding of "what is possible, what can happen, or what can happen at least sometimes; it does not allow conclusions about what is probable, general, or universal" (2002: 64).

The present study is rooted within the naturalistic or observational tradition of case study research. Studies of this kind aim to "investigate a phenomenon or a process as it takes place in real life in its natural setting" (Williams and Chesterman 2002: 62). Hence, the present researcher did not attempt to create experiment-like conditions by assigning students to one of the three types of group-learning structure identified in Chapter 2, or by attempting to compare classroom-based ('control') and virtual ('experimental') sections of the same course. The decision not to adopt an experimental approach was based on the researcher's conviction, eloquently expressed by Tiffin and Rajasingham, that when it comes to educational innovation, statistical comparisons of the new development with existing approaches can undermine the innovation "by damning it in terms of what it is, as distinct from what it could be" (1995: 11). Measuring change and innovation purely in terms of quantities and statistics is, they argue, "like asking the Inquisition to judge Galileo's new theory" (ibid.: 12).

A subtype of case study research frequently practised in educational settings is *action research*. Action researchers are "teachers or managers who are trying to make beneficial change within their own workplace" (Bassey 1999: 41). They are heavily involved in the case study under investigation and generally conduct the research with their own students in order to analyse and improve their own educational practice, and share their findings with other teachers. Tiffin and Rajasingham identify an iterative pattern as "the hallmark of action research" (1995: 13). This involves "the evaluation of each new phase of development, a consequent reassessment of goals and a new plan by which to proceed"

(ibid.). Educational action research aims to bridge the gap between research and practice by contributing not only to teaching but to a theory of education and teaching (see Elliot 1991: 54).

According to Hatim, action research has made a relatively recent appearance in Translation Studies where "the acts of translating and translation teaching have, until fairly recently, been kept separate from 'research' into these and related activities" (Hatim 2001: 3). Now, however, Translation Studies scholars are promoting the idea that "research is not only something done *to* or *on* practitioners, but is also something done *by* practitioners" (ibid.: 7; italics in the original). Kiraly (2000) describes an action research project initiated by him to develop his emerging approach to the social constructivist empowerment of translation students, and argues that action research "can be particularly valuable for perpetuating innovation in the often unreflective practice of translator education" (2000: 101).

The present study does not bear all the hallmarks of action research – it does not, for example, begin with a diagnostic stage in which problems are analysed and hypotheses developed (see Cohen et al. 2000: 234). Nevertheless, it borrows heavily from the action research paradigm. The researcher was motivated by an interest in implementing and reflecting on an instance of educational innovation, and was engaged in the entire cycle of activities which characterise action research: "planning, action, and observation, and reflection" (Kiraly 2000: 101). The researcher collaborated with the main module instructor to design the online module; was involved, as teaching assistant, in the delivery of that module; observed and evaluated the success of the module; and reflected on what needed to be improved for future delivery. While data analysed in this study is drawn primarily from the first implementation of the module, changes and improvements made following the first delivery are reported, and a selection of data gathered during the second implementation is presented in order to reinforce emerging understandings (see also 'Research Design', Section 3.4 below).

3.3 *Cresswell's Five-Dimensional Model of Quantitative and Qualitative Research*

Further light may be shed on the significance of choosing a qualitative case study design in the present investigation by examining Cresswell's (1994) five-point contrastive analysis of quantitative and qualitative approaches. He compares and contrasts the two approaches on the basis of ontology, epistemology, axiology, rhetoric and methodology. *Ontology* refers to the researcher's view of 'reality'. According to Cresswell, the quantitative researcher regards reality as 'objective' and 'out there', while the qualitative investigator believes that reality is constructed by the individuals involved in the research situation. *Epistemology* refers to the researcher's relationship to what is being researched. The quantitative researcher, according to Cresswell, believes he/she should remain distant and independent of the research object, in order to control for researcher bias and arrive at a sample that is truly representative of the target population. Qualitative researchers, on the other hand, interact with those they are studying and attempt to reduce the distance from them. *Axiology* refers to the role of values in the study. In a quantitative study, Cresswell argues, the researcher's values are omitted from the 'facts' of the research report, whereas the qualitative investigator acknowledges that both the study itself and the information gathered from the field are value-laden. *Rhetoric* refers to the language of the research. Here Cresswell contrasts the formal, impersonal language of the quantitative research report, where words such as 'relationship' and 'comparison' are used, with the personal and informal style of a qualitative study, which is characterised by words like 'understanding', 'discover' and 'meaning'. Finally, *methodology*, covers "the entire process of a study" (Cresswell 1994: 7). Quantitative methodology uses a deductive form of logic, according to which predetermined hypotheses are tested in terms of cause-and-effect in order to develop generalisations that contribute to theory. Conversely, the qualitative researcher employs an inductive logic whereby categories and theories emerge during the course of the study, and context-bound information is used to interpret a particular phenomenon.

When we say that the present investigation employs a qualitative paradigm, we are therefore implying five things. Firstly, the researcher believes that 'reality' may be

understood by examining what the individuals involved in the research situation, in this case the students and instructors, say and do. Secondly, the researcher is directly involved in the research situation and interacts directly with the research subjects. Thirdly, the researcher acknowledges the value-laden nature of the 'facts' in the field and the researcher's own opinions and biases. Fourthly, the language used in the study is informal, and is characterised by words like 'understand' and 'interpret'. And fifthly, the researcher does not attempt to test or prove a particular hypothesis, but to interpret the phenomena of the research situation using information gathered in the field.

3.4 Research Design

The empirical investigation which forms the focus of the present study consisted of four stages: instructional design, module implementation, data collection and analysis, and redelivery of the module. During the process, an ongoing review of the literature took place. According to Gillham, while the experimental researcher begins with a review of the relevant literature in order to establish what is already known about the topic and what new evidence needs to be gathered to test existing theory, case study researchers read the literature *in parallel* with getting to know their case in context. He calls this "a form of dialogue" (2000: 15), involving a simultaneous review of the literature and an examination of the 'real-life' situation: "what you read makes you look out for things in your research context; what you find there makes you read papers with a different eye" (ibid.: 41).

Stage 1 (Instructional Design): The process began during the academic year 2002/3 when a course was selected for conversion to Web-based delivery. This was a 12-week practical translation exercise module in German-English economic translation (module code 'GE502'), hitherto taught by the researcher's supervisor in a classroom setting (see also 'Research Setting', Section 3.5 below). The instructional design process involved consideration of a number of interrelated factors: the development of a theoretical framework for design of the online module; the analysis and adaptation of existing learning goals and course content in preparation for Web-based delivery; a student-centred needs assessment; and, on the technology front, an assessment of the features of WebCT®, the virtual learning environment used by the University, together with an

analysis of the projected ability of module participants to engage successfully in Web-based learning. The design of online module GE502 will be described in detail in Chapter 4, Sections 4.1 – 4.3, page 83ff.

Stage 2 (Module Implementation): The second stage took place during the academic year 2003/4 when the online module was delivered over a 12-week teaching semester. 22 tasks were implemented using a combination of independent study (5 tasks), whole-class discussion (15 tasks), and small-group structures (2 tasks). 20 students, 2 instructors and 1 outside expert took part (see also 'Participants in the Study', Section 3.6 below), and together they posted a total of 869 messages to the discussion boards. A detailed description of the online tasks implemented during the first module implementation will be provided in Chapter 4, Section 4.3, page 97ff. (see also Appendix I at the end of the study).

Stage 3 (Main Data Collection, Selection and Analysis Stage): Data gathered during Stage 2 forms the main focus of the present investigation. The data collection process was facilitated by the fact that all module-related material, from course content pages, to conference postings, to student submissions, was automatically stored on the module server for easy retrieval by the researcher. With regard to selection of data, only discussions relating to the 17 group-learning tasks were selected for analysis. In addition, the results of pre-semester, mid-semester and post-semester student surveys were also selected.

Analysis of the data involved the search for suitable analysis methods and software packages to aid in the analysis process, ongoing refinement of the research questions, triangulation of data using different sources and different techniques and, finally, compilation of the research report. Sections 3.7, 3.8 and 3.9 in this chapter describe in detail the data collection and analysis techniques employed in the study, while an in-depth analysis of the data gathered during Stage 2 will be provided in Chapters 4, 5, 6 and 7 of the study.

Stage 4 (Redelivery of the Module): The fourth and final stage of the empirical research process took place during academic year 2004/5 when module GE502 was redelivered,

this time to a group of 9 students (see 'Participants in the Study', Section 3.6 below). A total of 473 messages were posted to the bulletin boards during the second delivery. Some modifications had been made following refinement of the research question and an evaluation of the first delivery of the module based on student questionnaires and an initial assessment of group learning in the discussion conferences (a description of learning tasks in the second implementation of module GE502 is provided in Chapter 4, Section 4.5, page 110ff.). In particular, the proportion of small-group tasks using a combination of collaborative and cooperative structures was increased to three out of a total of 18 tasks (including subtasks). In addition, 4 tasks involving independent study and 11 using a whole-class discussion-group structure were implemented. Chapters 6 and 7 will include data on small-group collaborative and cooperative tasks implemented during the second delivery of the module.

3.5 Research Setting

The Graduate Diploma/MA in Translation Studies at Dublin City University is a one-year, full-time programme which aims to provide students with advanced translator training and a postgraduate qualification in Translation Studies (see course website at: http://www.dcu.ie/prospective/ deginfo.php?classname=GTS&mode=full). It is offered over a 24-week teaching year, divided into 2 semesters of equal length. Programme objectives include practical training in the translation of a variety of specialised texts ('translation competence') in addition to the development of a range of professional and linguistic skills appropriate to the translation profession ('translator competence'). Following successful completion of the Graduate Diploma, suitably qualified students have the option of registering for a Masters qualification involving the submission of a dissertation of 12,000 words.

In Semester 1 of the taught programme, students complete a total of five modules: three core modules in translation technology, computerised terminology and English writing skills for translators, and two optional modules chosen from a selection of language-pair-specific translation exercise modules. The module identified for conversion to Web-based delivery was a translation exercise class in German-English translation (module code 'GE502') which had hitherto been taught in face-to-face mode by the researcher's

supervisor. Existing course content focussed largely on the German-English translation of three types of economic text: company reports, economic forecasts and documents relating to labour market policy, in particular the European Social Fund (ESF). As well as providing practical experience in the translation of specialised economics texts, the syllabus covered such issues as text type, source-text analysis, translation evaluation, and translation-related terminological and subject-area research.

The decision to use a translation exercise module for conversion to Web-based delivery was prompted by the belief that such classes form the heart of the translation curriculum. In the translation exercise class, the practical exercise of translating a source text into a target language is taken as a point of departure for the discussion of relevant theoretical concepts, research methods, terminology-management skills and translation strategies (see Nord 1996: 313 for a discussion of the 'Übersetzungsübung', or translation exercise class, as the intersection between translation theory and translation practice). The decision to focus on a module of this kind was also motivated by the conviction that such classes are conducted on the principles of discussion and negotiation, and hence lend themselves to an investigation of group-learning techniques.

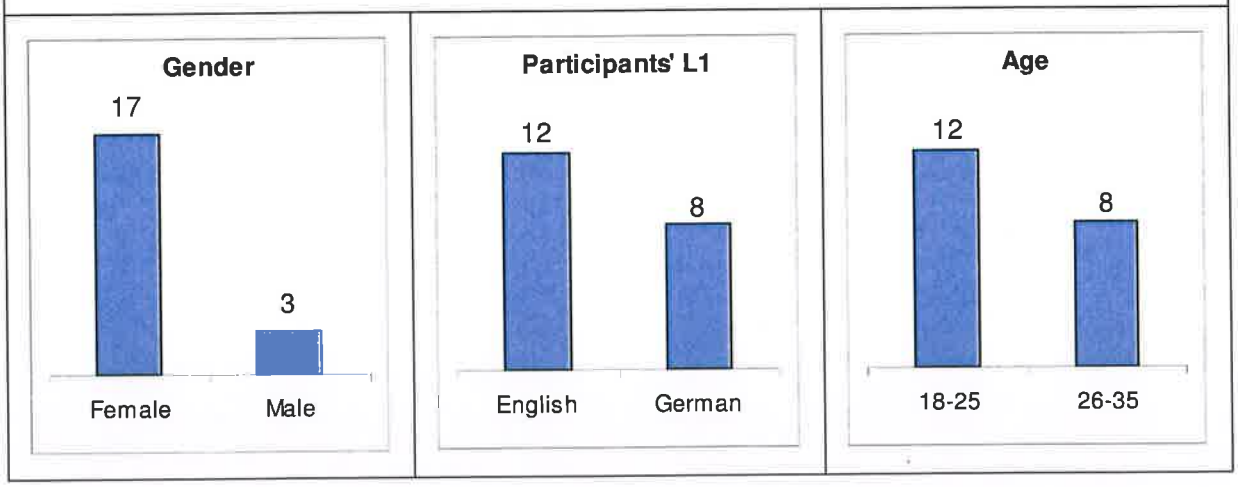
3.6 Participants in the Study

Three groups of people participated in the study: students; researcher/instructors; and outside experts.

3.6.1 Students

When module GE502 was first delivered online in 2003/4, twenty students enrolled. Figure 3.1 below presents demographic information from the pre-course survey, showing that a clear majority of students were female (85%); that there was a good mixture of native English (60%) and native German (40%) speakers; and that there was a spread of ages between 18 and 35, with a majority (60%) in the 18-25 category. (For the pre-course survey see Appendix J and for further information yielded from the survey see Appendix L at the end of the study.)

Figure 3.1 Pre-Semester Survey: Demographics 2003/4



In line with the entry requirements to the Graduate Diploma, all students were graduates with a degree (at least Second Class Honours) in either German only (single language option), or in German and one of the following: French, Irish, Japanese or Spanish (double language option). The entry requirements stipulated that students would have spent at least one year per language in a country/countries where their chosen language(s) are spoken and that those who were not native speakers of English would have a degree in English or would be able to display evidence of advanced English-language skills.

When the module was redelivered in academic year 2004/5, there was a dramatic decrease in the number of participants. In total, only nine students enrolled for the module, of whom seven completed it in its entirety. This should not, however, be seen as a negative reflection on the online module itself. The problem arose rather from an administrative error in the University's admissions office which delayed the registration of foreign exchange students. This error, and the delay in rectifying it, resulted in low participation levels throughout the second delivery of module GE502. This was to have a negative effect on the volume and quality of data gathered, which in turn influenced the researcher's decision to focus the investigation on data collected during the first implementation of the module.

Of the nine students who enrolled in module GE502 in 2004/5, eight (or 88%) were female, 6 (or 66%) were native speakers of English and 6 (or 66%) in the 18-25 age category.

3.6.2 Researcher/Instructors

Between them, the researcher and the researcher's supervisor performed two roles in the online module. They were the *instructional designers*, deciding together on course content, learning tasks and assessment procedures. And they were the *module instructors*, the researcher performing a supportive role as teaching assistant, and the researcher's supervisor acting as the main module instructor, providing nearly all of the subject input and most of the feedback on students' work.

3.6.3 Outside Experts

For one week of the module during each implementation, an outside expert was invited to join in the online discussions. In each case, this was a graduate of the MA in Translation Studies at Dublin City University who had secured a placement as a financial translator at the Deutsche Bank in Frankfurt. Students were invited to consult the translator while working on the translation of a quarterly report from the Deutsche Bank. They were encouraged to discuss with her any aspect of the translation task and her professional routine.

3.7 Data Collection Techniques

Case study research seeks to extract and collate different kinds of evidence present in the case setting in order to answer the research questions. Gillham identifies the use of multiple sources of evidence as a fundamental characteristic of case study research: "all evidence is of some use to the case study researcher: nothing is turned away" (Gillham 2000: 20). Because case study research aims to understand and interpret human phenomena in all their complexity, Gillham stresses the importance not only of multiple sources but also different *types* of evidence: "what people *say*, what you see them *doing*, what they *make* or *produce*, what documents and records *show*" (ibid.; italics in the original). Relevant evidence can include documents (letters, guidelines, written records);

formal and informal interviews; surveys; 'fly-on-the-wall' observation; participant observation; and physical artefacts (e.g. examples of students' work).

As stated in Section 3.4 ('Research Design') above, data gathering in the present study was considerably eased by the fact that all material related to the module was automatically stored in machine-readable format on the course website where it could be easily retrieved by the researcher. Hence, data 'collection' was really a matter of data 'selection' and data 'organisation'.

Selection of data was based on a number of considerations. First was the researcher's intention to focus on the *process* rather than the *product* of group learning in the online translation classroom. Transcripts of online discussions generated by group-learning tasks were selected as the main data source, while the actual learning artefacts, i.e. student translations, were not considered for data analysis purposes. In common with other types of process-based research within the discipline of Translation Studies, the intention was to address the issue of how the translated product is arrived at, rather than subjecting the product itself to analysis. On the subject of process-based translation research, Hatim identifies two methods of "probing the mental activities involved in translation" (2001: 155): 'think aloud protocols' (TAPs), where translators are asked to verbalise their thoughts *while* they are translating, and 'immediate introspection', where translators produce a commentary on the process *following* completion of the translation task. As yet unexplored in the literature on process-based translation research is the potential contribution computer-conferencing technologies can make to our understanding of what goes on in the trainee translator's mind. It will be shown in this study that "the permanent written memory" (McCreary 1990: 127-8) automatically stored in the transcripts of computer conferences provides a rich source of data on the process of acquiring translation competence in an online translation classroom.

A second consideration was the need to triangulate findings from transcript analysis with data from other sources. *Triangulation* relates to *validity*, i.e. the extent to which research findings truly represent 'reality'. The question of validity is one that must be addressed by all researchers, for the taint of subjectivity affects even those who contend that reality

is objective and 'out there'. As Silverman points out, "the facts we find in 'the field' never speak for themselves but are impregnated by our assumptions" (2001: 1), and even the natural scientist observes "'facts' through the use of lenses made up of concepts and theories" (ibid.). Hence the need to triangulate or cross-reference findings from one data source and one analysis method to another. If the results derived from multiple sources and methods converge, then the researcher, and hence the reader, can be more confident in the conclusions; if the results contradict each other, then it may be necessary to pursue a new line of thinking.

In the present study, a number of different techniques were used to analyse the computer conferencing transcripts of online discussions. The results were triangulated with each other and with data derived from student surveys carried out mid-semester and at the end of the module (see Chapter 4, Section 4.6, page 112ff. and Appendices J to L at the end of the study for details of student surveys). In what remains of this chapter, the techniques used to analyse transcripts of online discussions are presented and discussed. Section 3.8 introduces a variety of numerical techniques; Section 3.9 focuses on the technique of content analysis; and Section 3.10 provides an examination of the 'Community of Inquiry' Model.

3.8 Data Analysis: Numerical Techniques

Since computer-mediated communication first made its appearance on the educational stage in the late 1980s, scholars and teachers have grappled with how best to evaluate its success in terms of institutional investment, user perception, technical infrastructure and, not least, the quality of instructor and student performance. The early stages of computer conferencing evaluation were dominated by studies which focussed on automatically-generated computer statistics (see Mason 1991, Mason 1992a and Henri 1992). Most conferencing systems like WebCT® or FirstClass® produce statistics, e.g. the number of logons per student per day, the number of messages per participant, and the number and length of messages per conference. While data of this kind has the advantage of being accurate, reliable and self-transcribed, Mason points to the danger "that student *activity* may be mistaken for student *learning*" (1992a: 112; italics in the original). It cannot be assumed, for example, that because students are not contributing to an online conference,

they are not learning by reading and observing. As Mowrer, whose analysis of student/instructor interaction is based on quantitative measures, concedes: "some students profit from 'private thinking' rather than 'public thinking' and have different styles of learning" (1996: 237).

Many studies today use quantitative data, much of it computer-generated, as *one* technique for the initial analysis of conferencing interactions (see e.g. Pena-Shaff and Nicholls 2004, who include the number of postings per participant and the number of interactive messages in their evaluation of student interactions in bulletin board discussions). Information of this kind can be a useful first step in the analysis process, enabling the researcher to identify for example which participants are particularly active and which conferences or assignments generate most postings. Silverman also points out that simple counting techniques "can offer a means to survey the whole corpus of data ordinarily lost in intensive, qualitative research" (2001: 37). This enables the reader to get a sense of the data as a whole and the researcher to test and revise impressions based on the entire body of data.

In the last section, it was stated that conferencing transcripts were selected as the main source of data in the present study, not least because, as Henri and Rigault argue, they are "the most obvious source of data available for [computer conferencing] research" (1996: 3). The question we are faced with now is how to find evidence of group-learning processes in these transcripts. In this section we present three numerical techniques, derived from Levin et al. (1990) and Henri (1992), which were used in the present study to identify levels of interaction and participation as initial indicators of group learning in the discussion threads from module GE502. While these techniques date from the early stages of computer conferencing research, they are frequently employed as a point of departure in research studies today (see e.g. Gunawardena et al. 1997, Aviv 2000, Rose and Flowers 2003, and Pena-Shaff and Nicholls 2004).

Two of the numerical methods employed in the study – Intermessage Reference Analysis (IRA) and message clusters – are based on Levin et al. (1990) who developed one of the earliest examples of content analysis of computer-mediated discussions. Using the first of

these, Intermessage Reference Analysis, all postings relating to group-learning tasks in module GE502 were classified as either 'referenced' (i.e. they either referred to or were referenced by one or more other messages) or 'unreferenced' (i.e. they were independent of all other messages). Having categorised messages in this way, a calculation was made of the percentage of intermessage references per conference (see Figure 4.4, page 107). Levin et al. distinguish between explicit and implicit references. Explicit references are those where an 'Answer' or 'Reply' software command has been used, or where the sender explicitly refers to another posting either in the subject line or in the text of the message. Implicit references are less obvious, such as when a message responds to a question or comment in a previous posting. In this study, no such distinction was made in the initial analysis of conference postings using Levin et al.'s IRA technique as it was felt that the content analysis conducted using the 'Community of Inquiry' Model and described in Section 3.10 below adequately accounted for both types of reference.

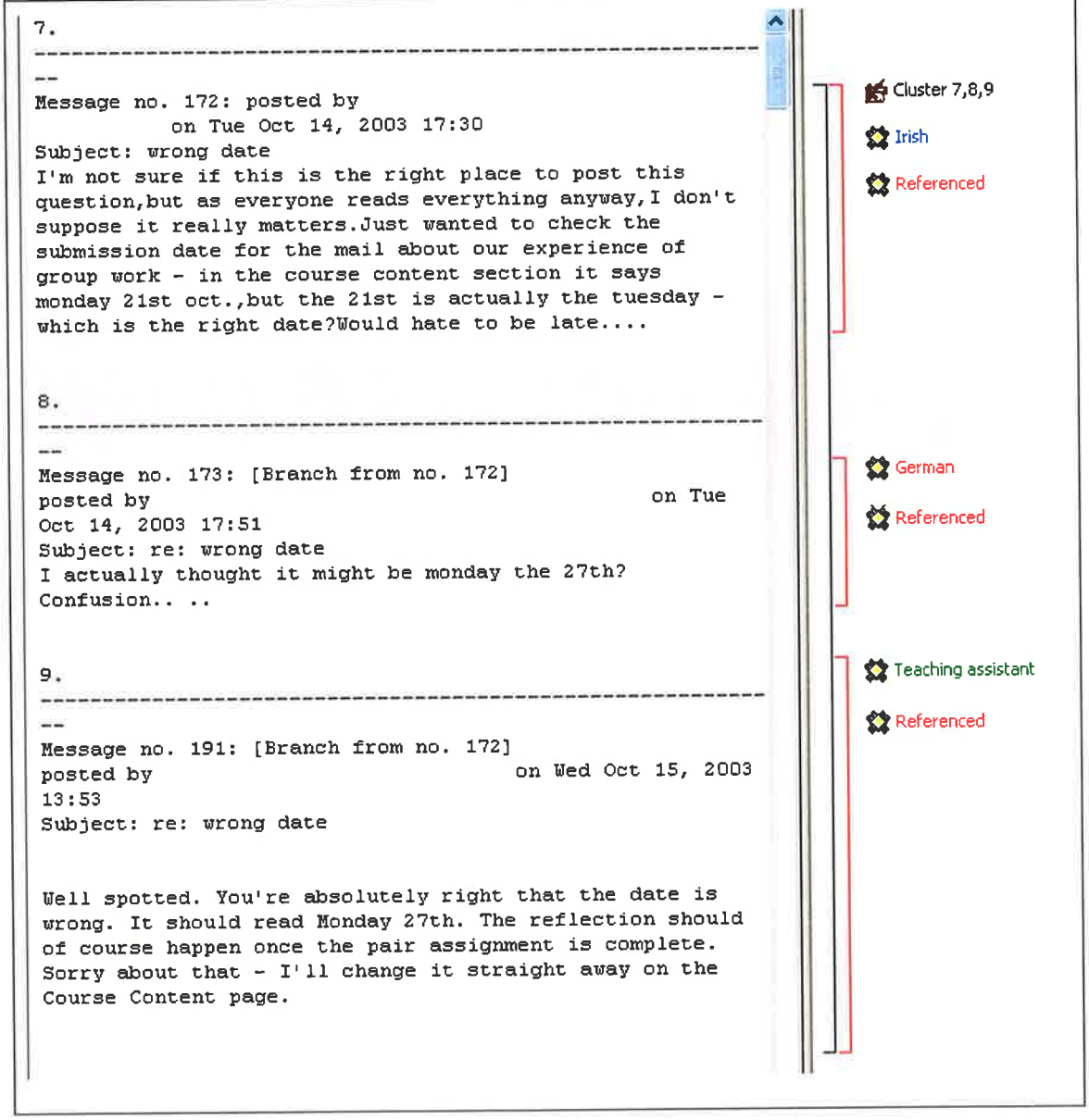
Following Intermessage Reference Analysis, Levin et al. recommend the use of 'message maps' to graphically display intermessage references. This technique may be employed to identify messages clusters, defined by the authors as groups of two or more intermessage references. The assumption here is that the more clusters a conference contains and the larger the size of these clusters, the more interactive the conference may be considered to be. In the present study, conferences were scrutinised in order to identify the number and size of message clusters (see Figure 4.5, page 108 and Table 4.8, page 109) present in them, although no attempt was made to create a graphical representation of such clusters in the form of 'message maps'.

A third numerical method used in the present study was developed by Henri (1992), whose work provides the first comprehensive framework for the in-depth analysis of message content. Henri's model comprises five dimensions: participative, social, interactive, cognitive and metacognitive. For the purpose of the present study, it was decided that the *participative* dimension would be evaluated by counting the number of messages per participant and learning task (see Table 4.7, page 104 and Figure 4.3, page 105). Of the remaining elements of Henri's model, the *interactive* dimension was dealt with by measuring the ratio of referenced to independent messages per learning task

using Levin et al.'s Intermessage Reference Analysis model, discussed above, while the *social* and *cognitive* dimensions were covered by the 'Community of Inquiry' Model, discussed in Section 3.10 below. The *metacognitive* dimension, referring to statements *about* the knowledge and skills the learner employs, has been found in other studies to be difficult to distinguish from the cognitive dimension (see Gunawardena 1997), and difficult to identify and code (see Hara et al. 2000). Hence, it is not included in the present study.

Figure 3.2 below shows an example of a cluster of three messages, each classified as 'referenced'. Each message was coded as belonging to one of five contributor categories: module instructor, teaching assistant, German student, Irish student or outside expert (although in the eventual research report, the two student categories were collated into one). Following coding of all conference transcripts in this way, a qualitative analysis software package, Atlas.ti®, was used to calculate the ratio of referenced to unreferenced postings, the number and size of message clusters per conference, and the number of postings per contributor category.

Figure 3.2 Numerical Data Analysis Module GE502



Some words about the Atlas.ti® software are in order here. This is one of a number of software packages available to the qualitative researcher to aid in the analysis of text files, including conferencing transcripts. Packages of this kind allow the computer conferencing researcher to identify the unit of analysis in a transcript and to assign it to a code or category which may have been fixed in advance or which may emerge during the analysis process (see also Section 3.10.4 below for more on the unit of analysis). Once

the transcripts have been coded, categories may be combined into families for deeper analysis. Packages like Atlas.ti® allow for the multiple coding of transcripts to investigate multiple constructs. They also permit the generation of reports listing frequency counts of codes and, if required, providing quotations to illustrate the codes (see Appendix D at the end of the study for a sample Atlas.ti codes report and Appendices E – G for sample quotation reports.).

In the present study, a number of steps were taken to prepare files for analysis with Atlas.ti®. Discussion transcripts were exported as text files from the WebCT® platform. All messages pertaining to a particular learning task were gathered together in the same file (it will emerge in Chapter 4 that messages relating to the same task were originally posted to a number of different conferences – see page 122.). And all postings within each file were numbered chronologically for ease of identification.

3.9 Content Analysis: Some Introductory Remarks

Levin et al. acknowledge that the techniques of Intermessage Reference Analysis and 'message maps' are limited by the fact that the actual message content is largely ignored. There is, they concede, "more to the structuring of message interactions than references between messages" (1990: 200). Nevertheless, they legitimately claim that analysing such references can be beneficial as an initial approach to evaluating online interaction and identifying interactional patterns. Similarly, Henri argues that while counting the number of messages per participant and learning task does not, on its own, give an accurate picture of student participation, it can be useful "if it is analysed in conjunction with data from the analysis of the other dimensions" (1992: 124).

According to Pena-Shaff and Nicholls, researchers must analyse "both the content of the messages and the patterns of interaction [if they wish] to learn whether computer conferencing can facilitate critical thinking and encourage the process of knowledge construction" (2004: 244). This brings us to the technique of content analysis, i.e. analysis of the actual content of conference postings, which, in the words of Gunawardena et al., is "essential" in order to "assess the quality of interactions and the quality of the learning experience in a computer mediated conferencing environment"

(1997: 398). As a result, it is widely used today as one of the primary research techniques in computer conferencing evaluation (see recent volumes of relevant journals, e.g. *Computers & Education* (January 2006) and the online *Journal of Asynchronous Learning Networks* (April 2004), for evidence of the widespread use of this technique).

Rourke and Anderson define content analysis as follows: "at its most basic, the procedure involves segmenting communication content into units, assigning each unit to a category, and providing tallies for each category" (2004: 1). In their review article, Rourke et al. (2000: 5-6) distinguish four steps in the content analysis of computer-conferencing transcripts. The *first* step is to identify samples of the communication to be studied. The *second* involves choosing or generating a coding protocol for categorising the target variables in the communication transcript, and training coders to use the protocol. The *third* step entails evaluating the results of the coding process for reliability and objectivity by measuring either *inter*rater reliability (where following the initial coding process, a second researcher is asked to code some or all of the data and a percent agreement statistic shows the extent to which the two coders agreed per total number of coding decisions) or, in the absence of a second researcher, *intra*rater reliability (whereby the same researcher codes the data at two separate points in time and examines the extent of coding agreement). And the *fourth* and final step is to describe the target variable or the relationship between variables in a way that is theoretically sound and supported by the empirical evidence.

An important distinction in this context is that between manifest and latent content. Rourke et al. define manifest content as "content that resides on the surface of communication and is therefore easily observable" (2000: 9). Examples in the transcripts of computer conferences are the use of first names and emoticons, e.g. smileys, and the explicit mention of course topics. To a certain extent, the coding of such content can be automated and carried out using the auto-coding tool of software packages like Atlas.ti®, which finds exact matches and assigns codes to them. However, rather than measuring what is observable on the surface, most researchers are more interested in what rests below, i.e. the latent content. Thus, Newman, Webb and Cochrane (1995) use content analysis to investigate critical thinking, Rourke et al. (1999) to measure social presence,

Aviv (2000) to investigate teaching presence, and Campos (2004) to evaluate knowledge building. Similarly, the present study examines the latent content of discussion transcripts to investigate group learning. This is a fundamentally interpretive process which must be carried out by a human researcher using a sophisticated code to analyse the meaning of the content.

According to Rourke and Anderson (2004: 6), most reviews of content analysis methodology begin by urging researchers to develop a coding scheme of their own. Rourke and Anderson lament the fact that few researchers today are prepared to implement an existing instrument and recommend that, where appropriate, a coding scheme used in previous research should be employed. In this way, researchers can "contribute to the accumulating validity of an existing procedure; [. . .] compare their results with a growing catalogue of normative data; and leapfrog over the instrument construction process" (ibid: 7). Furthermore, Rourke et al. (2000) argue that it is only when a coding scheme has been successfully replicated by researchers not involved in its creation that it may be considered reliable.

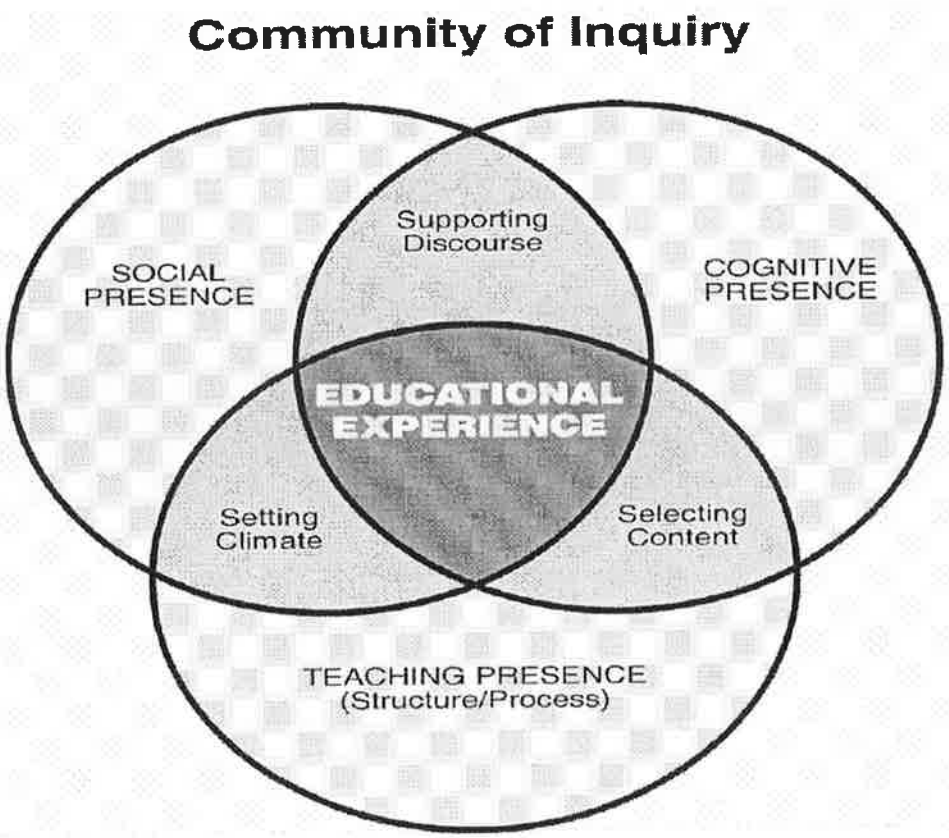
For the reasons put forward in the last paragraph, a decision was taken in the present study to use an already-existing model of content analysis. Following a search of the content analysis literature (see e.g. Henri 1992, Gunawardena et al. 1997, Hara et al. 2000, Campos 2004, and Pena-Shaff and Nicholls 2004) the researcher selected the 'Community of Inquiry' Model. This was developed by a team of researchers at the University of Alberta between 1997 and 2001 as part of a research project entitled "A Study of the Characteristics and Qualities of Text-Based Computer Conferencing for Educational Purposes" (see Anderson et al. 2001, Garrison et al. 2000 and 2001, Garrison and Anderson 2003, and Rourke et al. 1999). This model was considered by the researcher to have a number of advantages prompting the decision to use it as the main instrument of content analysis in the present study. Firstly, it was developed for use specifically within an educational context (unlike, for example, Gunawardena et al.'s (1997) model), and with the specific aim of evaluating the quality of group learning in such an environment. Secondly, the authors have designed easy-to-use templates for teachers and researchers with clear indicators of the three elements in their model (see

Tables 3.1 – 3.3 below). Thirdly, the four scholars have published a wealth of literature outlining conceptual underpinnings and practical implementations of specific aspects of their approach (for an overview of the 'Community of Inquiry' Model see Garrison et al. 2000 and Garrison and Anderson 2003; for a discussion of cognitive presence see Garrison et al. 2001; for social presence see Rourke et al. 1999; and for teaching presence see Anderson et al. 2001). Fourthly, and finally, the model has been successfully replicated (if somewhat adapted) by other researchers, specifically Heckman and Annabi (2002).

3.10 The 'Community of Inquiry' Model

The authors of the 'Community of Inquiry' Model believe that a worthwhile e-learning experience takes place within a learning community comprising teachers and students. Drawing on existing literature on social interdependence, critical thinking and constructivist learning, they have developed a model comprising three elements, or 'presences', essential to a successful educational experience: cognitive presence, social presence and teaching presence. Figure 3.3 below illustrates that a meaningful educational experience occurs at the intersection between these three core elements:

Figure 3.3 'Community of Inquiry' Model



Source: http://communitiesofinquiry.com/

3.10.1 Cognitive Presence

The most important dimension of the 'Community of Inquiry' Model displayed in Figure 3.3 above is *cognitive presence*. This is defined by Garrison et al. (2001: 11) as "the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse in a critical community of inquiry". Cognitive presence is regarded by the authors as an essential element of critical thinking, which is "a holistic, multi-phased process associated with a triggering event" (Garrison et al. 2000: 98). Garrison et al. set out to show how computer conferencing may be used to support and facilitate the development of critical thinking skills, and how evidence of these skills may be identified in a discussion transcript. Drawing on existing content analysis studies of the facilitation of deep and meaningful learning through asynchronous, text-based

communication, they develop a rubric to enable researchers and teachers to identify and categorise indicators of cognitive presence in the transcripts of computer conferences (see Table 3.1 below). In all, the authors identify four categories, which together comprise the cognitive presence dimension. These are hierarchical in nature, proceeding from lower to higher levels of critical thinking as follows: a *triggering* event or communication; *exploration* in search of information and knowledge; *integration* of information and knowledge; and *resolution* of the issue or problem. (Further information about each of the cognitive presence indicators is provided in Appendix A at the end of the study.)

Table 3.1 Cognitive Presence Rubric

Category	*Descriptor*	*Indicators*
Triggering	Evocative (inductive)	Puzzlement Recognising problem
Exploration	Inquisitive (divergent)	Brainstorming Divergence within online community Divergence within single message Information exchange Suggestions for consideration Leaps to conclusions
Integration	Tentative (convergent)	Convergence within group Convergence within message Connecting ideas, synthesis Creating Solutions
Resolution	Committed (deductive)	Vicarious application to real world Testing/defending solutions

Source: Garrison et al. (2001) and Garrison and Anderson (2003)

3.10.2 Social Presence

While cognitive presence is critical to the success of the educational transaction, its existence is dependent on the two other elements in the 'Community of Inquiry' Model: social presence and teaching presence. *Social presence* is defined as "the ability of

participants in a community of inquiry to project themselves socially and emotionally, as 'real' people (i.e., their full personality) through the medium of communication being used" (Garrison et al. 2000: 94) (also cited on page 35 above). High levels of social presence fulfil both affective and cognitive goals. As well as making the learning experience enjoyable and motivating, social integration allows participants to engage in group activities which facilitate the development of higher-order thinking skills. According to Garrison et al., social presence "marks a qualitative difference between a collaborative community of inquiry and a simple process of downloading information" (ibid.: 96). The template developed by Rourke et al. (1999) for identifying indicators of social presence contains three categories, 'affective responses', 'interactive responses' and 'cohesive responses', and 12 indicators (see Table 3.2 below). Unlike the cognitive presence rubric, the social presence classification scheme is non-hierarchical in nature with all categories and indicators given equal weighting. (Further information about each of the social presence indicators is provided in Appendix B at the end of the study.)

Table 3.2 Social Presence Rubric

Category	*Indicator*
Affective	Expressions of emotion, including emoticons Humour Self-disclosure
Interactive	Continuing a thread Quoting from others' messages Referring explicitly to others' messages Asking questions Complimenting others Expressing agreement
Cohesive	Vocatives Addresses or refers to the group Phatics, salutations

Source: Rourke et al. (1999)

3.10.3 Teaching Presence

The third element in the 'Community of Inquiry' Model is *teaching presence*. Like social presence, this performs a supportive role, structuring, guiding and enhancing the development of cognitive presence. According to Anderson et al. (2001), the teacher performs three main functions in the physical classroom environment: designer, facilitator and subject-matter expert. Consistent with this, the authors define online teaching presence as "the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes" (Anderson et al. 2001: 5). These three categories inform the classification scheme for identifying online teaching presence in a discussion transcript developed by Anderson et al. (2001) and illustrated in Table 3.3 below.

Table 3.3 Teaching Presence Rubric

Category	*Indicator*
Design/Organisation	Setting curriculum Designing methods Time parameters Utilizing medium Establishing netiquette
Facilitating Discourse	Identify agreement/disagreement Encourage consensus Acknowledge/reinforce student contributions Setting climate for learning Prompting discussion Assess efficacy of process
Direct Instruction	Present content/questions Focus discussion Summarise discussion Assessment/feedback Diagnose misconceptions Inject knowledge Respond to technical concerns

Source: Anderson et al. (2001)

It should be noted that, similar to social presence, the three categories and 18 indicators of teaching presence are non-hierarchical in nature. While these functions, particularly the last two (direct instruction and discourse facilitation), can, in theory, be carried out by any participant in a learning community (see e.g. Shea, Pickett and Pelz 2003), the analysis of teaching presence in this study focuses exclusively on contributions from the main module instructor and the teaching assistant. (Further information about each of the teaching presence indicators is provided in Appendix C at the end of the study.)

3.10.4 Unit of Analysis

A few words are required here about the unit of analysis in the 'Community of Inquiry' Model. In content analysis, the process of 'unitizing' refers to the identification of segments of the transcript that will be categorised and coded. Rourke et al. (2000: 11) identify five such units: the sentence unit, the paragraph unit, the message unit, the thematic unit and the illocutionary unit. In the numerical techniques presented in Section 3.8 above, the entire message was used as the unit of analysis. In calculating *cognitive presence*, the authors of the 'Community of Inquiry' Model also recommend treating the full message as the unit of analysis. Message-level units are, they argue, more clearly identifiable in the computer transcript than submessage thematic units. While this approach enhances reliability, a disadvantage is that messages may display evidence of more than one phase of cognitive presence. In such cases, Garrison et al. (2001: 9-10) recommend two heuristics, which were adopted in the present study: coding down (i.e. to an earlier phase) if it is unclear which phase is reflected, and coding up (i.e. to a later phase) if evidence of multiple phases is present.

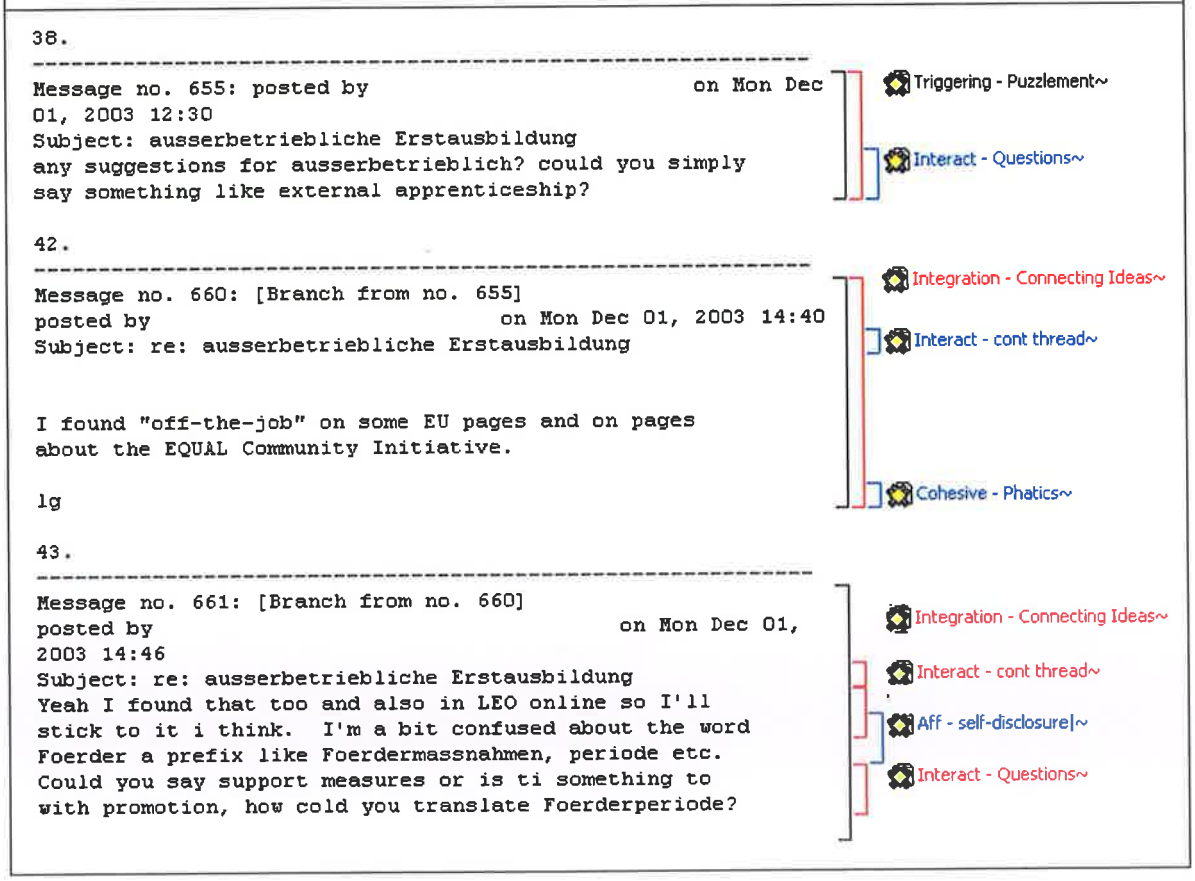
When calculating *social presence*, a different approach is suggested. This involves identifying instances of social presence in the text and comparing the number of instances per category. On the basis of this analysis, a measurement of "social presence density" (Rourke et al. 1999: 14) may be made. This involves summing the raw number of instances of social presence and dividing this by the total number of words per conference transcript, thereby allowing for a comparison of transcripts and across studies (see Figure 5.4, page 133). Depending on the number of words in a transcript, Rourke et al. acknowledge that this calculation may yield extremely small values and therefore

recommend multiplying the social presence density figure by 1,000. Finally, in the case of *teaching presence*, Anderson et al. (2001) recommend using the message as the basic unit of analysis. However, they also point out that a message may contain more than one category of teaching presence. The *amount* of teaching presence may be calculated as a percentage of the overall number of conference postings, while the number of instances for each category determines the *type* of teaching presence in evidence in an online conference.

3.10.5 Using the 'Community of Inquiry' Model to Code a Discussion Transcript

Figure 3.4 below provides an example of how the 'Community of Inquiry' Model was applied to a discussion transcript from module GE502.

Figure 3.4 Coding of Cognitive and Social Presence in Discussion Transcript



The above Figure shows a cluster of three messages and gives examples of different categories of cognitive and social presence. (There is no example of teaching presence here as the sample does not include any instructor postings.) It shows 3 messages from a whole-class discussion group set up to support a target-text production task. Each message is categorised as belonging to one category of cognitive presence. Message no. 38 is classified as a 'triggering' event: in it, the student recognises a problem and requests information from other participants. Messages no. 42 and 43 are categorised as 'integration – connecting ideas' because they provide evidence of assimilating ideas from different sources – an EU website in the case of Message no. 42 and an online dictionary in the case of Message no. 43. Message no. 43 is an example of 'coding up': in addition to 'integration', it also displays a 'triggering' event regarding the word 'Foerdermassnahmen'. In line with the recommendation that the researcher should code up (i.e. to a later phase) if evidence of multiple phases is present (see page 78 above), the entire message was coded as 'integration'.

Figure 3.4 also displays multiple examples of social presence. Message no. 38 contains a question addressed to the entire class group; Message no. 42 contains an example of 'continuing a thread' and an example of 'phatics' (lg – 'Liebe Grüße' or 'regards/best wishes'); while Message no. 43 also contains an example of 'continuing a thread' and 'posing a question' as well as an example of 'self-disclosure', defined by the authors of the 'Community of Inquiry' Model as 'presenting details of life outside the class or expressing vulnerability' (see Appendix B at the end of the study). On the basis of the transcript presented in Figure 3.4, social presence density would be calculated by summing the raw number of instances of social presence (6), dividing this by the total number of words (133) and multiplying the result (0.04511) by 1,000 to yield a social presence density of 45.11.

3.10.6 Reliability/Ethics

Before we conclude this chapter, some words about reliability and ethics are needed. 'Reliability' is defined by Cohen et al. as "a measure of consistency over time and over similar samples" (2000: 117). The present study involved one researcher working alone coding the data. Hence, it was not possible to provide a measurement of *inter*rater

reliability i.e. of the extent to which different coders agreed on the analysis of the data (see Section 3.9 above). However, the researcher did code the same data on a number of different occasions in order to ensure maximum *intra*rater reliability, i.e. that codes were being applied consistently across all conference transcripts over time.

No measurement is provided here of intrarater reliability as an agreement statistic. This is because, as Cohen et al. argue, the provision of statistics of this kind "is seeking to apply to qualitative research the canons of reliability of quantitative research" (ibid.: 119). In qualitative research, it is acknowledged that reality is multi-layered and open to multiple interpretations, and it may be argued that triangulation is at least as good a measure of reliability as inter-/intrarater agreement statistics. Thus, in the present study the researcher attempted to improve both validity and reliability by triangulating the results from content analysis with findings from other sources (see also Section 3.7 above).

On the question of ethics, all participants in module GE502 were asked to sign an informed consent form which provided them with information about the nature of the investigation, the types of data which would be analysed in the study and how the information obtained was to be used. Participants were informed that where their postings were cited in the research report, any information allowing for the identification of individual students would be removed. They were also informed that the researcher did not have access to private email exchanges among participants within WebCT®.

3.11 Chapter 3. Concluding Remarks

In this chapter, we have provided an overview of the methodology used in the present investigation into the impact of task structure on group learning via text-based asynchronous computer conferencing in an online translation classroom. In common with other case-study investigations, a variety of data collection and data analysis techniques are used to investigate the research questions. The main data source is computer transcripts of online discussions from module GE502. These are subject to a number of analysis techniques, first and foremost content analysis using the 'Community of Inquiry' Model. Results from this technique are triangulated with numerical measurements of online activity: participation levels are measured by counting the number of messages per

participant and learning task, while interaction levels are evaluated using Levin et al's (1990) techniques of Intermessage Reference Analysis and message clusters. Finally, results from student questionnaires are used to reinforce findings from numerical and content analysis of computer transcripts.

In the coming chapters, findings derived from the implementation of these techniques will be presented. Chapter 4 discusses the instructional design of module GE502, providing an overview of the 17 group-learning tasks implemented during the first delivery of online module GE502, and presenting a first analysis of these tasks based on numerical techniques and student surveys. In Chapter 5, online discussions relating to 15 of these tasks, which were implemented using a whole-class discussion-group structure, are analysed using the 'Community of Inquiry' Model. The remaining two group-learning tasks, which were carried out using a combination of small-group collaborative and cooperative structures, are analysed in Chapters 6 and 7 which draw on and compare data gathered during the two implementations of module GE502.

As well as enabling us to draw conclusions about the relative impact of task structure on group learning in the online translation module, the analysis which follows in the coming chapters will allow for an evaluation of the 'Community of Inquiry' Model itself and a discussion of the benefits and drawbacks associated with designing and delivering a Web-based translation exercise module.

4 Module Design and Data Overview

Chapter 4 fulfils two main functions. It describes the principles which informed the design of module GE502 and it provides an overview and initial evaluation of the data gathered during the first delivery of the online module. The chapter begins in Section 4.1 with a consideration of five key factors which must be taken into account when designing any kind of Web-based instruction: theoretical orientation, learning goals, course content, learner characteristics and technological capabilities. Section 4.2 provides further detail about the module design by examining the pedagogical principles implemented in module GE502. The chapter moves on in Section 4.3 to provide an overview of online learning tasks employed during the first stage of module delivery. In Section 4.4, transcripts of discussions generated by these tasks are subjected to the three quantitative measurements identified in Chapter 3 in order to provide an initial overview of the data and to identify activities which generated particularly high levels of participation and interaction. Section 4.5 presents a discussion of the changes made to the instructional design before module GE502 was redelivered. Finally, the chapter concludes in Section 4.6 with a qualitative analysis of student perceptions based on mid- and post-course surveys conducted during the first delivery of the module.

4.1 Designing Web-Based Instruction: Consideration of Five Key Factors

This section of the chapter takes as its point of departure an article by Miller and Miller (2000), in which five interrelated factors are identified which must be given due consideration in the design of Web-based instruction: theoretical orientation, learning goals, course content, learner characteristics and technological capabilities. While these are considered separately below, it is clear that all five factors are closely interconnected. For example, as Miller and Miller argue, "*learning goals* influence structuring of content, but *content* also influences learning goals" (2000: 164). Similarly, the choice of theoretical orientation is both determined by and dependent on technological capabilities and learner characteristics.

4.1.1 Theoretical Orientation

The importance of a sound conceptual framework is a recurring theme in the literature on instructional design. Miller and Miller (2000) stress that selecting the 'correct' theory is less critical than the deliberate and conscious adoption of a given theoretical framework and the implementation of instructional practices consistent with that framework. While it may be possible to take a non-theoretical, ad hoc approach to course development, Bednar et al. suggest that "effective design is possible only if the developer has developed reflexive awareness of the theoretical basis underlying the design" (1992: 19). This argument remains valid regardless of whether the instructional setting is virtual or classroom-based. Indeed, it may be said that a rigorous theoretical approach is imperative when educational innovations involve technology. An atheoretical approach to computer-aided instruction invites the charge of placing technology in the foreground while neglecting the pedagogical requirements of the learning context (cf. e.g. Maddux, Johnson and Willis 2001: 95).

The design of online module GE502 in German economic translation at Dublin City University was informed by the dual pillars of social constructivism and functionalism. The discussion of social constructivist principles in Chapter 2, Section 2.2.3 identifies as a fundamental principle the creation of a learning situation in which students are empowered to actively construct their own interpretations and knowledge. Learning needs to be embedded in a meaningful and authentic context relevant to the uses to which what is learned will eventually be put. Hence the employment of authentic, real-world tasks in the social constructivist classroom. Furthermore, as meaning is context-dependent, it needs to be experienced in a variety of situations and from a range of perspectives. In a social constructivist classroom, group work is used to elicit multiple perspectives. Students are encouraged to bring their subjective viewpoints to the learning situation, test these against the ideas and beliefs of others, and arrive through negotiation and debate at understanding and consensus.

Functionalism, as we saw in Chapter 2, Section 2.2.2, is a school of thought within Translation Studies which emphasises the *Skopos*, or communicative purpose of the translation. The focus is on the target-language culture and receiver, and on the

communicative context in which the translated text is received. Nord's suggestions for the translation classroom, as noted in Chapter 2, include the use of authentic texts and translation tools; the provision of a translation brief; the study of 'real-life' parallel texts; and the promotion of team work and group interaction.

4.1.2 Learning Goals

Learning goals are determined by what we, as instructors, expect students to know and be able to do by the end of a course. Palloff and Pratt (1999: 88) suggest that in all types of course delivery "an instructor needs to begin with the end in mind". The identification of learning objectives lays the groundwork for developing a syllabus, creating learning activities, selecting resources and establishing guidelines for assessment and student participation.

In converting module GE502 for Web-based delivery, existing objectives in the module syllabus were reviewed and adapted. The following course goals remained unchanged: the ability to carry out translation-related source-text analysis; to understand the issues of translation evaluation; to translate economic texts accurately and in an appropriate style; and to discuss and defend translation decisions and strategies. Others were altered and adapted to reflect the new medium of instruction: the ability to undertake terminological research online; to retrieve translation-related background information on the World Wide Web; and to receive and deliver translation jobs in electronic format.

4.1.3 Course Content

Before deciding on any kind of theoretical framework or instructional activity, it is important to determine the nature of the knowledge and skills which characterise the subject field in which instruction is to be provided. As discussed in Chapter 2 (Section 2.2.3) constructivist scholars distinguish between well-structured knowledge domains, which are rule-based and characterised by orderliness and regularity, and ill-structured knowledge domains in which complexity and irregularity are the defining features. As translation is a field in which no two problems and no two solutions are the same, it has been described by Kiraly as an "'ill-structured knowledge domain' *par excellence*" (2000: 27). This, as we saw, has important instructional implications, and underlies the

choice of social constructivism as an appropriate pedagogical approach in the translation exercise classroom.

When converting a course for Web-based delivery, an important step according to Berge et al. (2000: 35) is the analysis of existing course content and learning processes in the face-to-face classroom. While the core texts and readings in a translation exercise module should remain largely unaffected by the medium of delivery, the online designer must establish which course-related activities will work equally well or better online, and which need to be adapted to suit the Web-based environment.

Prior to the academic year 2003/2004, course content in module GE502 focussed largely on the German-English translation of three types of economic text: company reports, economic forecasts and documents relating to labour market policy, in particular the European Social Fund (ESF). As well as providing practical experience in the translation of specialised economics texts, the syllabus covered such issues as text type, source-text analysis, translation evaluation, and translation-related terminological and subject-area research. Classroom activities included pair and group translation work, discussion of translation strategies, and evaluation of target texts produced by students and professionals. Outside the classroom, students were required to undertake individual research, translation exercises and evaluation tasks in preparation for face-to-face meetings.

It may be said on the basis of the above that course content and learning tasks in the face-to-face classroom already displayed a strong functionalist and social constructivist orientation. Thus, many aspects were adopted unchanged in the conversion to Web-based delivery. However, there was an increased emphasis on the encouragement of teamwork and group learning in the virtual classroom and on the familiarisation of participants with relevant online resources.

4.1.4 Participating Students

One of the most difficult factors in planning for any kind of course development is the profile of participating students. Yet Powers and Guan state that "a student-centred needs assessment should form the central core of the instructional design" (2000: 201). It is

important as part of the planning process to establish the prior skills and knowledge of the students; their expectations and motivation for taking the course; and their ability to adopt the learning principles which inform course design. Indeed, ascertaining learners' beliefs and prior experiences is central to the social constructivist approach, where the creation of knowledge is seen to depend largely on what learners already know and believe about the world. For the designer of Web-based learning, there is a gap between the necessity for detailed advance planning of the instructional environment and the difficulty in predicting participants' needs and characteristics prior to the first class. Thus, while an online course must be meticulously planned and highly structured, it also has to have a degree of inbuilt flexibility and adaptability in order to respond spontaneously to users' needs.

In designing online module GE502, the profile of participating students was predicted on the basis of prior iterations of the module and the overall entry requirements to the programme. Past experience suggested that participants would have a high level of linguistic expertise, would be strongly motivated to complete the programme, and would, in many cases, have had practical experience of the translation profession. While it was difficult to forecast participants' technical expertise, it was expected that students would be computer-literate, while not necessarily experienced in using the online environment for educational purposes. It was also predicted that participants would not have had a high level of exposure to constructivist learning principles. Finally, while the official entry requirements stated that participants would normally be native speakers of English, an increasing percentage of native German speakers in recent years led to an expectation of a greater balance between native and non-native speakers of English.

Throughout the module, several measures were taken to enable the needs and perceptions of participating students to be ascertained. To meet users' technical, social and educational needs, a number of discussion forums were set up where students were encouraged to interact socially and to post comments and queries relating to technical difficulties and to the online learning experience. A pre-course survey elicited information about participants' demographic profile, their computer literacy, their ability to access the course website and complete assignments outside the University, their

experience of online learning, their attitudes to learning and instruction, and their expectations for the module. A mid-course survey established students' perceptions of the advantages and disadvantages of the online learning environment. Finally, a survey was conducted at the end of the module to ascertain participants' views on the learning experience and their recommendations for future improvements (see Appendix K). (For more on surveys, see Section 4.6 below and Appendices J and K at the end of the study.)

4.1.5 Technological Dimension

The final matter requiring careful consideration in the planning process is the technological dimension. This relates to the features of the online instructional environment and the technical ability of module participants to engage successfully in Web-based learning. The pedagogical challenge to the online instructional designer is the creation of a user-friendly environment which capitalises on the dual strengths of the Internet in providing access to a wide variety of resources and supporting communication and interaction at a distance (see Chapter 2, Section 2.3, page 28ff. for the potential of Web-based learning).

Educators wishing to deliver Web-based programmes have a variety of courseware packages to choose from. Well-known examples are WebCT®, Blackboard® and Moodle®. Most virtual learning environments (VLEs) or course management systems (CMSs) have similar features: communication tools (email, conferencing, real-time chat, interactive whiteboard, group work area), course content tools (interlinked course pages, Web resources) and course management tools (online quizzes and surveys, student tracking software, online grade book). The advantages of a virtual learning platform of this kind include ease of design and use, and the integration of all elements of the online course into a single environment.

When planning for educational deployment of the Internet, the instructional designer must decide on the extent to which the Internet will be used to *supplement* regular face-to-face classes or to *replace* them entirely with Web-based instruction. A further, related issue concerns the integration of communication tools and/or information-sharing tools into the online instructional environment. Aggarwal and Bento (2000) identify three

models for educational deployment of the World Wide Web: Web-support for the storage, dissemination and retrieval of information that is relevant to a classroom-based course; Web-support for two-way interaction via email, chatrooms and threaded discussion between faculty and students in a classroom-based course; and fully Web-based teaching combining information and interaction capabilities to provide all (or most) of the teaching and learning online. The type of implementation chosen will depend on the educational philosophy of the instructor, the profile of participating students, and the nature of the subject matter in which instruction is being provided.

In the case of module GE502, it was decided that all course-related information-sharing and communication should occur online, with the exception of four face-to-face meetings at the beginning, middle and end of the semester. The virtual learning platform used in Dublin City University during the academic years 2003/4 and 2004/5 was WebCT®, and in developing online module GE502, five WebCT® tools were selected for inclusion on the student's version of the course website. These are listed and described in Table 4.1 below.

Table 4.1 WebCT® Tools used in Online Module GE502	
WebCT® Tool	*Description*
Syllabus	Contains information on course aims and outcomes, details of course instructors and a reading list.
Calendar	Provides information about course-related events, e.g. dates of face-to-face meetings and submission dates for assignments.
Course Content	Provides information about weekly tasks and assignments organised into a Table of Contents, containing links to individual Course Content pages.
Communication Tools	Contains links to two types of communication tool: WebCT Mail and Discussion. Mail is used for one-to-one communication between students or between a student and instructor. Discussions (or 'threads') are organised by the designer around particular subjects (also called 'conferences') and are used for interaction between members of the entire class group or of smaller working groups. Files may be attached to messages and posted via WebCT Mail and Discussion conferences.
Resources	Provides links to useful websites for completing module-related activities and assignments. Updated during the semester, incorporating suggestions from course participants.

It will be noted from the above Table, that synchronous communication was not used as a tool in module GE502, even though the WebCT® platform has a real-time chat facility. There were a number of reasons for this. The instructors were advised by the University technical support team that this feature was less reliable than other WebCT® communication tools and tended to create technical problems when used. It was also felt that because participants have to arrange to be online simultaneously, real-time chat can negate the advantage of time independence in the virtual learning environment.

In planning for the Web-based delivery of module GE502, due consideration was given to the projected ability of course participants to engage successfully in online learning activities. Two issues which needed to be addressed were the technical know-how of students and the availability and accessibility of technology. While it was safe to suppose that students would be able to navigate the Web and use email and word processing packages, it could not be assumed with equal certainty that they would know how to

upload and download file attachments, initiate and respond to discussion threads, apply advanced Web search strategies, and critically evaluate the quality of online sources. At the beginning of the semester, two face-to-face sessions were devoted to familiarising participants with the course website and providing training in the technical skills required to undertake the course. A conference devoted to technical questions was set up in the Discussion Area and students were encouraged to post and comment on technology-related queries. Participants were also presented with a manual on the WebCT® platform compiled by the module designer.

On the question of technology accessibility, it could not be assumed that course participants would have Web access from home. Indeed, the pre-course survey conducted in the first face-to-face session in Week 1 of the semester showed that while twelve of the twenty students enrolled in online module GE502 owned a computer, only five had Internet access from home (see further Appendix L at the end of the study). To address this imbalance, a computer laboratory was reserved for two hours twice weekly for the duration of the semester, and students were also encouraged to log onto WebCT® from other locations around campus.

4.2 *Implementing Pedagogical Principles in the Design of Online Module GE502*

Whereas the last section of this chapter considered macro issues relating to the design of Web-based learning, the purpose of this section is to describe in further detail the pedagogical principles underlying the design of online module GE502. A total of five principles will be considered: structured independence; participation guidelines; use of discussion area; student interaction; and the development of text competence.

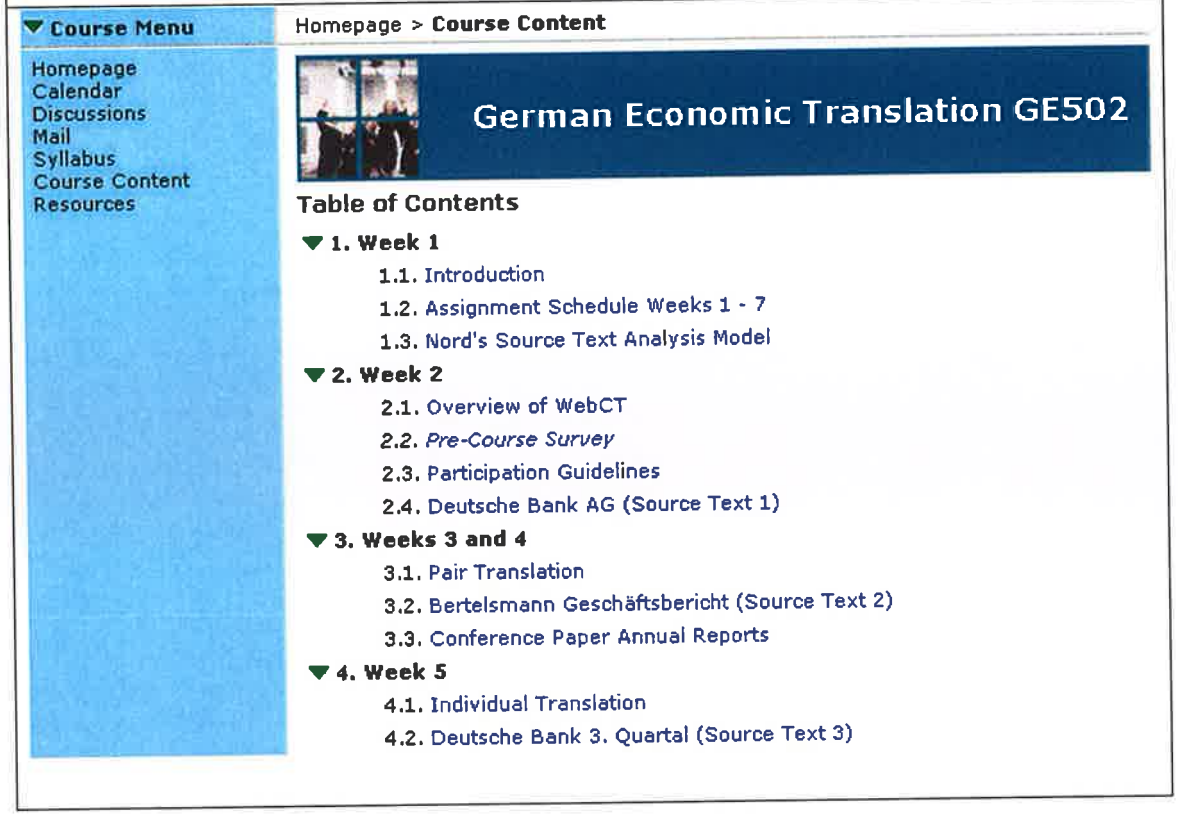
4.2.1 Structured Independence

One of the benefits of online learning is independence of time and place. While the ability to work independently without constraint is undoubtedly an advantage, it is nevertheless important that virtual learners be provided with clear structure and guidance. As seen in Chapter 2 (Section 2.3.4, page 34), students' ability to work independently online is limited by a number of constraints. They may feel alienated by a lack of

personal interaction in the virtual classroom; they have to struggle with the technical demands of the online environment; and, in the case of a module like GE502, with its focus on social constructivist principles, they are confronted with a learning philosophy which may run counter to their prior experiences of competitive and teacher-led instruction. Thus, a balance must be sought between the stipulations of social constructivism that learning be active, authentic, anti-competitive and, above all, student-led, and the need for structure and guidance in an online educational environment.

In order to benefit from interacting with one another, virtual learners need to work on the same task at the same time. In online module GE502, participants were required to meet strict deadlines for the completion of coursework in order to ensure that all were undertaking the same task over any one-week or two-week period. In this way, Nord's (2003) suggestion, cited in Section 2.2.2, page 17 above, that the assignment schedule reflect professional practice, with deadline pressure rather than an artificial timetable based on class times and university calendars, was also implemented. The following screenshot from the Course Content section of the course website shows the organisation of tasks on a weekly or biweekly basis (for an overview of all online tasks from the first delivery of the module, see Appendix I and Section 4.3 below):

Figure 4.1 Module GE502 Course Content Page



We noted in Section 4.1.4 on page 87 above that an online instructional programme must have a degree of inbuilt flexibility and adaptability in order to respond spontaneously to users' needs. Thus, the assignment schedule for module GE502 was initially set for the first half of the semester (Weeks 1 to 7), and the second half of the module was finalised only following consultation with and feedback from participants.

4.2.2 Participation Guidelines

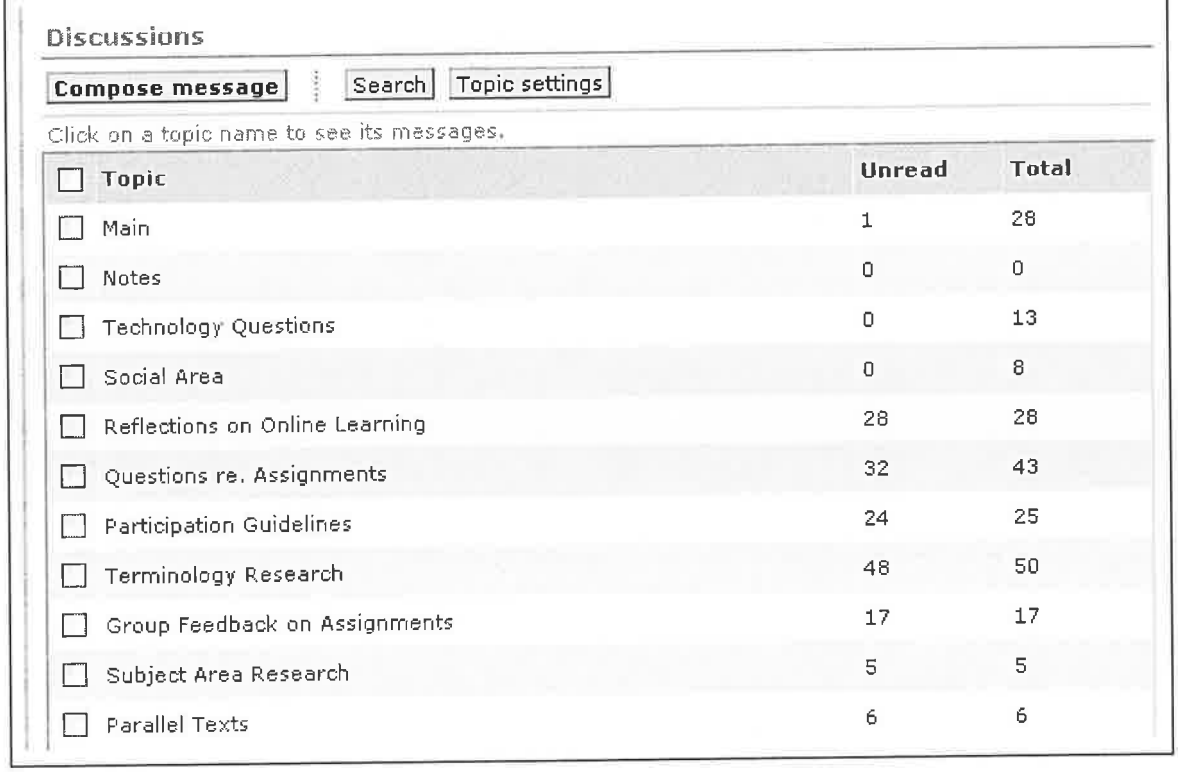
Guidelines for participation in the online classroom were presented to students at the start of the semester. The importance of establishing unambiguous parameters from the outset is emphasised by Palloff and Pratt, who say they "have learned the hard way that if clear Participation Guidelines are not established, the [online] course does not go well" (1999: 91). This may be explained by the fact that while classroom-based learners have a pre-conception of what they and their instructors can expect from each other and from the learning situation, the same is not the case when the educational experience occurs

online. Paloff and Pratt argue that clear Participation Guidelines, discussed and agreed to by participants, will help to ensure student 'buy-in' to the online experience. The Guidelines should clarify instructor availability; learning principles underlying course design; the expected level and type of student participation; and the percentage (if any) of the overall module mark to be allocated to online activity. Details of the Participation Guidelines presented to and discussed with participants of module GE502 are contained in Appendix H at the end of the study. These contain information under the following headings: Minimum Usage; Learning Principles; Collaboration and Peer Feedback; Questions; Instructor Role; Sharing Resources; and Assessment and Evaluation.

4.2.3 Use of Discussion Area

The Discussion Area was regarded by the module designers as the central arena in which the social negotiation of knowledge may best be supported. As argued in Chapter 2 (Section 2.3), asynchronous text-based conferences lend themselves to the facilitation of group work and the sharing of multiple perspectives. But how do we ensure that online learners avail of this facility and benefit from its interactive potential? Studies have shown that unless there is a requirement to participate, learners may not use the online discussion facility at all. Hara et al. (2000) also found that when students were required to make one posting per week, the result was a one-way rather than two-way interaction; having met the requirement, they rarely returned to make a second or third posting during a particular week. Thus, in module GE502, the Participation Guidelines issued at the beginning of the semester stated that students were required to make a minimum of two postings per week to the Discussion Area. Conferences were set up to reflect translation subtasks, with separate forums devoted to source-text analysis, terminological research, subject-area research and target-text formulation. In addition, a number of conferences provided students with the opportunity to interact socially, reflect on the online learning experience and post queries relating to technical difficulties (see also Section 4.1.4 above). Figure 4.2 below shows a screenshot of the Discussion Area.

Figure 4.2 Conferences in Discussion Area Module GE502



Apart from the 2-postings per week rule, instructors adopted a hands-off approach and did not try to impose a structure on the discussion forums. Students were encouraged to initiate new topics and to respond to others' postings. They were also informed that 10% of the final grade would be allocated to online activity. In order to be awarded the full 10%, all online tasks had to be completed, and at least 2 messages posted per week to the Discussion Area. Such postings were expected to show evidence of having read other participants' comments and to make a significant contribution to the online discussions.

4.2.4 Student Interaction

The Participation Guidelines emphasised the principles of student interaction and group learning. Participants were encouraged to voice opinions and provide feedback to one another in the Discussion Area. The Guidelines advised students to seek answers from one another before contacting the module instructors. They were also encouraged to share resources by posting the URLs of relevant websites and parallel texts to the Discussion

Area. It was stressed in the Guidelines that the process of enquiry should be viewed as a collective endeavour rather than as a competitive undertaking.

It will be shown in Section 4.3 below that of the 22 learning tasks implemented in the online module, 17 were based on the principle of group learning, using a variety of discussion-group, cooperative-group and collaborative-group structure. While completing such tasks, learners were encouraged to post queries, share ideas and provide feedback to one another via public and private discussion forums.

4.2.5 The Development of Text Competence

Regardless of whether translation instruction occurs online or offline, tuition is required in the functionalist text competences identified by Nord (2003): textual meta-competence; text-analytical ability; text production proficiency; and contrastive text competence. A variety of techniques were employed to this end in online module GE502. Nord's (1991) model of source-text analysis (STA) was used to highlight extratextual factors such as source-text author, target-text recipient and the motive for communication, and intratextual factors such as subject matter, lexis, terminology and non-linguistic elements. In the first task of the semester, students were required to produce a source-text analysis of an interim report (see Section 4.3.4 below), and prior to undertaking any translation task throughout the rest of the module they were encouraged to consider the questions posed by Nord's STA model.

Source texts employed in the module were authentic and representative of the type of text that 'real-life' economic translators deal with. As noted in Section 4.1.3, three areas of economic translation were focussed on: company reports, economic forecasts and documents relating to labour market policy, in particular the European Social Fund (ESF). All source texts were accompanied by a translation brief, defining "the conditions under which the target text should carry out its particular function" (Nord 1997: 59) and providing information about the client, the target audience and the purpose of the translation. In this way, students were enabled to make informed decisions about text type, style and register when producing a target text.

Text competence was further developed through tasks focussing on collocations, summaries and peer evaluation of student translations (see Sections 4.3.4 and 4.3.5 below). Contrastive text competence was taught by searching for and analysing parallel texts, and by highlighting the different conventions of style, layout and terminology existing in English and German parallel texts. Throughout the module, students were encouraged to use all Internet resources available to the economic translator and to read widely around the topic in the target language.

4.3 Overview of Online Learning Tasks 2003/4

Participants in module GE502 in academic year 2003/4 were required to carry out a total of 22 online tasks excluding pre- and post-course surveys (see Appendix I for an overview of all tasks in sequence.) These ranged in scope from brief responses to instructor postings to the production of target texts on an individual or group basis. While engaged in learning tasks, students were encouraged to use private and public conferences to share work, and to post and respond to comments and queries.

In the following overview, tasks are grouped into one of five types: reflection tasks, translation subtasks, target-text production tasks, translation-related tasks and small-group tasks. For ease of interpretation, in addition to the task number, the following codes are used in this and the remaining chapters to identify the different task types: (R) = reflection task; (TS) = translation subtask; (TTP) = target-text production task; (TR) = translation-related task; and (SG) = small-group task.

Tables 4.2 – 4.5 below provide an overview of the online learning tasks. The four learning structures identified by Graham and Misanchuk (2004) and discussed in Chapter 2 (see Figure 2.2, page 44) are also indicated here. The term 'independent study' refers to a structure in which learners work independently to achieve their goals and interact only with the module instructor via WebCT® Mail; 'discussion group' refers to a situation in which students work individually but in parallel on the same tasks using whole-class discussion conferences to provide support to one another; 'cooperative group' refers to a small group of online learners (between 2 and 4) who interact via private conferences on the creation of a joint product and divide the work into chunks done independently by

group members; and 'collaborative group' refers to a small group of online learners who interact via private conferences on the creation of a joint learning product, while working synchronously and in parallel on all aspects of the task.

4.3.1 Reflection (R) Tasks

Six tasks in online module GE502 involved reflecting on completed work (see Table 4.2 below). Four of these entailed independent study and two involved discussion groups. Reflection or 'reflexivity' is defined by Duffy and Cunningham as turning what is learned "back upon itself" (1996: 181). They argue that reflexivity enables learners to "have real control over and responsibility for their beliefs" (ibid.: 182), a key aim of constructivist learning approaches.

Table 4.2 Reflection (R) Tasks

Task #	*Description*	*Learning Structure*
# $2^{(R)}$	Reflection on Participation Guidelines	Discussion Group
# $4^{(R)}$	Difficult Aspects of Previous translation exercise	Independent Study
# $5^{(R)}$	Response to Collated Difficulties Identified in Task # $4^{(R)}$	Discussion Group
# $10^{(R)}$	Reflections on Pair Work	Independent Study
# $15^{(R)}$	Mid-semester Evaluation	Independent Study
# $22^{(R)}$	Translation Diary	Independent Study

The purpose of the reflection exercises in module GE502 was to raise students' awareness of problematic aspects of the tasks at hand, while also helping them to become reflective learners responsible for their own knowledge and convictions. These exercises required students to verbalise their ideas regarding the translation process, group learning and the advantages and disadvantages of learning online. According to Kußmaul, it is through self-awareness that translators gain self-confidence (1995: 32). Such exercises also prepare students for the 'real world' where professional translators "should know what they are doing, and should be able to talk about it with those who commission translations and with those whose translations they have to supervise or revise" (ibid. 3-4).

4.3.2 Translation Subtasks (TS)

Early in the semester (weeks 3 and 4), students were required to undertake a translation task in pairs. Subtasks were specified by the module instructors (see Table 4.3 below) and discussion groups established to support the learning process.

Table 4.3 Translation Subtasks (TS)

Task #	*Description*	*Learning Structure*
# $8^{(TS)}$	Identification of Online Parallel Texts for Bertelsmann Translation	Discussion Group
# $9^{(TS)}$	Production of Bilingual Glossary for Bertelsmann Translation	Discussion Group

The decision to break down the learning process in this way was based on the belief that virtual learners need more structure than those in a conventional classroom setting, particularly in the early stages of the online learning experience (cf. the principle of structured independence discussed in Section 4.2.1 above). Each pair was required to upload to public discussion forums a glossary and the URLs of relevant parallel texts for dissemination to the entire class group.

4.3.3 Target-Text Production (TTP) Tasks

Throughout the semester, students completed a total of 5 target-text production tasks on an individual basis (see Table 4.4 below). While preparing target texts, students provided both cognitive and emotional support to one another by interacting via public discussion groups. Instructors entered into discussions on a regular basis, but did not attempt to impose a structure or to break down the translation process into its constituent parts.

Table 4.4 Target-Text Production (TTP) Tasks		
Task #	*Description*	*Learning Structure*
# $3^{(TTP)}$	Translation of Deutsche Bank Economic Forecast	Discussion Group
# $12^{(TTP)}$	Individual Translation of Deutsche Bank Quarterly Report	Discussion Group
# $13^{(TTP)}$	Optional Translation of Allianz Annual Report.	Discussion Group
# $19^{(TTP)}$	Individual Translation of Structural Funds Document	Discussion Group
# $21^{(TTP)}$	Individual Translation of BfA Guidelines	Discussion Group

4.3.4 Translation-Related (TR) Tasks

Module GE502 included a number of tasks which may be described as 'translation-related' (see Table 4.5 below) and which were designed to foster the functionalist text competences identified by Nord and discussed in Section 4.2.5 above.

Table 4.5 Translation-Related (TR) Tasks		
Task #	*Description*	*Learning Structure*
# $1^{(TR)}$	Source-Text Analysis	Independent Study
# $6^{(TR)}$	Evaluation of Published Translation	Discussion Group
# $11^{(TR)}$	Discussion with Deutsche Bank Consultant	Discussion Group
# $14^{(TR)}$	Evaluation of Online Discussion Forum	Discussion Group
# $16^{(TR)}$	ESF Research Project	Discussion Group
# $17^{(TR)}$	ESF Collocations Project	Discussion Group
# $18^{(TR)}$	ESF Summary Project	Discussion Group

The first exercise of the semester, Task # $1^{(TR)}$ was a source-text analysis designed to heighten students' awareness of functional aspects of the source text and the need to either preserve or alter these in the translation process (see also Section 4.2.5 above). This entailed independent study, and learners mailed their learning product directly to the instructors via WebCT® Mail. With all other tasks in this category, the learning process

was supported by discussion groups. In Task # $6^{(TR)}$, students were required to evaluate a published translation in order to train their ability to assess the work of others. Tasks # $16^{(TR)}$ and # $17^{(TR)}$ were pre-translation exercises which aimed to improve students' familiarity with parallel texts and their ability to carry out terminological and subject-area research online. Students' research skills were fostered through consultation with an outside expert (Task # $11^{(TR)}$) and evaluation of an online discussion forum for translators (Task # $14^{(TR)}$). Finally, the summary project (Task # $18^{(TR)}$) was included by way of preparation for the translation task and was intended to improve learners' text-production skills.

4.3.5 Small-Group (SG) Tasks

Two small-group exercises were implemented during the first delivery of module GE502: a pair translation assignment carried out in Weeks 3 and 4 of the semester, and a small-group evaluation task implemented in Week 11 (see Table 4.6 below). In these activities, learners worked together on the creation of a group product: a joint translation in the case of Task # $7^{(SG)}$ and a group evaluation report in the case of Task # $20^{(SG)}$. In Task # $7^{(SG)}$, subtasks were identified in advance by the module instructors (see Section 4.3.2 above), but these were not allocated to individual students. It was left to the pairs to decide whether to adopt a collaborative approach and work in parallel on the same tasks, or a cooperative approach involving individual responsibility for subdivisions of the larger task. In Task # $20^{(SG)}$, the instructors imposed a cooperative structure from the outset by allocating responsibility for compilation of evaluation reports to individual students. Two means of communication were used during these exercises: private group conferences for interaction with other group members and public discussion forums for communication with the entire class group. Table 4.6 below provides an overview of the small-group tasks in module GE502.

Table 4.6 Small-Group (SG) Tasks

Task #	*Description*	*Learning Structure*
# $7^{(SG)}$	Translation of Bertelsmann Text in Pairs	Cooperative/Collaborative Groups
# $20^{(SG)}$	Group Evaluation Report	Cooperative Groups

4.4 Numerical Analysis of Discussion Threads

Having discussed the principles underlying module design, and having provided a description of the type and structure of learning task carried out during the first delivery of module GE502, we now turn our attention to the data gathered during module implementation. As discussed in Chapter 3, the main source of data in the study is computer transcripts of online discussions from the first delivery of the module. The purpose of this section of the chapter is to provide a broad overview of this data using the numerical analysis techniques presented in Chapter 3. Participation levels will be calculated on the basis of the number of messages per participant and per learning task, and interaction levels by measuring the percentage of intermessage references, and the number and size of message clusters per task. This will allow the reader to gain an impression of the entire body of data and the researcher to make some generalisations based on the data as a whole.

In order to gain a general overview of participation levels per course participant, we will begin in Section 4.4.1 by examining all 869 messages posted to the discussion boards over the twelve-week teaching semester. This will enable us to ascertain overall participation levels and to judge the effect of the 2-postings per week rule on the volume of contributions per student.

Following that, only the 770 postings generated by 17 group-learning tasks will be included for further analysis. As the present study focuses on group-learning structures, the 5 CMC tasks involving independent study and one-to-one email communication between student and instructor (Tasks # $1^{(TR)}$, # $4^{(R)}$, # $10^{(R)}$, # $15^{(R)}$, # $22^{(R)}$) will not be considered further. Nor will the four conferences which were 'live' for the duration of the course and which were not linked to specific learning tasks. These were: the 'main' conference, to which students posted course-related messages unrelated to specific assignments; a 'social area' for postings of a non-academic, social nature; a forum for 'reflections on online learning'; and one for technology-related questions.

4.4.1 Participation Levels per Course Participant

Of an overall total of 869 messages posted to the discussion boards over the twelve-week semester, 149 postings were contributed by the two course instructors, 23 by the translation consultant invited to join in online tasks during Week 5, and 697 messages by 20 students. Thus, students contributed over 80% of postings to the discussion forums. This outcome met the expectations of the instructors who drew inspiration for the module design from recommendations in the online social constructivist literature, according to which teachers should not dominate discussions, but should stay on the sidelines away from the centre of conversation (see e.g. Collison 2000: 8). It also reflects other research studies which compare levels of student/instructor participation in classroom-based and virtual instruction. In their investigation of face-to-face and ALN (asynchronous learning networks) case-study discussions, Heckman and Annabi (2002), for example, found a ratio of 5:1 for student/teacher utterances in the asynchronous learning network. This contrasted with a ratio of almost 1:1 in the physical classroom. Typical face-to-face classroom discussion is, they say, "of a steady, linear, turntaking character" (Heckmann and Annabi 2002: 6), with almost consistent alternation between a teacher's question and/or comment and a student's response. Similarly, Mercer, in his discussion of classroom-based interaction, finds that "the range of opportunities for learners to contribute to talk is quite narrow and the amount of talk they contribute is relatively small" (1995: 60). In this respect, the online environment in general and module GE502 in particular, may be said to *improve* on the classroom situation. For as Paloff and Pratt argue, "the most powerful experiences are those in which interaction occurs throughout the group instead of between one participant and the facilitator within a group setting" (1999: 19).

Table 4.7 below gives a breakdown of the number of postings per student. It shows that only four failed to contribute the minimum of two postings per week (i.e. 24 over a 12-week semester) set as a course requirement in the Participation Guidelines. Of these four, one student made only six postings and dropped out of the course mid-semester, citing other study commitments as the reason, while the other three fell short of the required 24 postings by no more than a small number of messages (4, 2 and 1 respectively). 16

students, or 80%, contributed more than the required two postings, with two making 50 postings each, over twice the required minimum. On average, students posted 34.85 messages each over the course of the 12-week semester.

Table 4.7 Participation Levels per Student

Number of postings	*Number of students*
6	1
20	1
21	1
23	1
30	1
31	2
33	2
35	1
37	1
38	1
40	2
42	1
43	1
47	2
50	2
697 messages	**20 students**

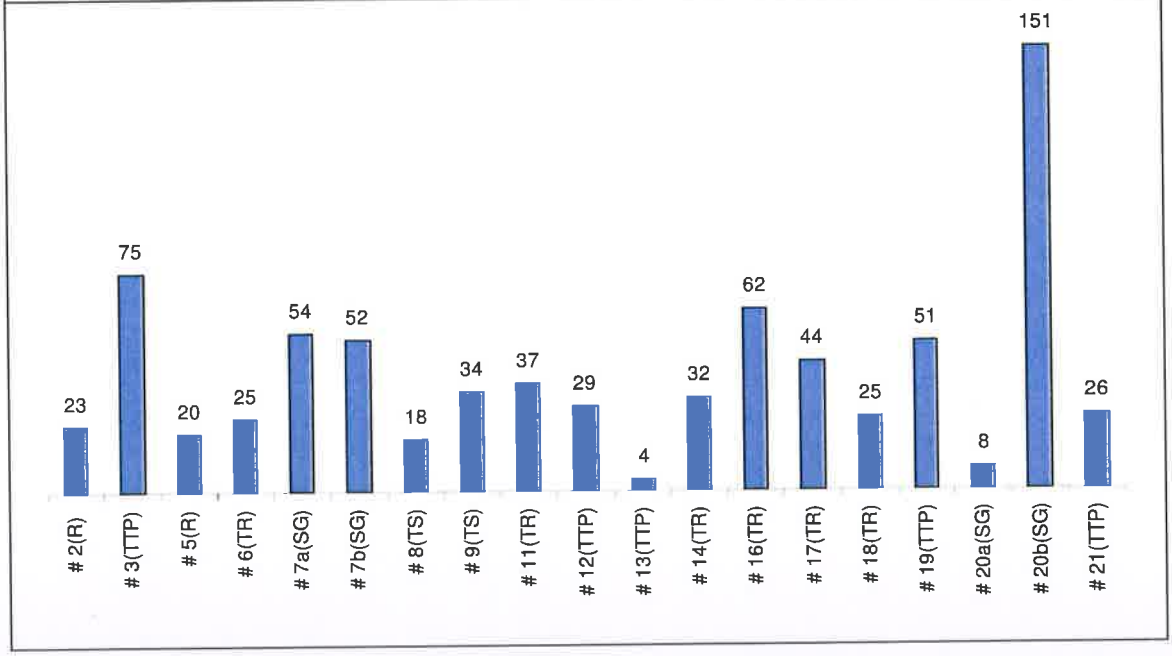
It may be asserted that the high levels of online activity recorded in Table 4.7 were a direct result of the 2-postings per week rule set down in the Participation Guidelines issued to students at the start of module GE502 (see Section 4.2.2, page 93/94 above). This claim is backed up by the literature on online learning. Jiang (1998) argues that students will contribute only if they know that course requirements oblige them to do so. In Hara et al.'s (2000) study of online social interaction (cited above in Section 4.2.3, page 94), students were required to make at least one posting per week. The results of this study show that even when they had initially started a discussion, students rarely participated a second or third time during any particular week. Because of the course requirement, most students contributed no more than once per week. This, in turn, affected interaction levels, creating "a one-way, not two-way, interaction" (Hara et al. 2000: 123). On the basis of this finding, it may be assumed that the high quantity of contributions recorded in module GE502 positively affected the level and quality of

interaction amongst module participants. This claim will be investigated further in Sections 4.4.3 and 4.4.4 below.

4.4.2 Participation Levels per Learning Task

Figure 4.3 below provides an overview of the number of postings per group-learning task. In two tasks (# $7^{(SG)}$ and # $20^{(SG)}$), students were allocated to small groups of two/three members. While undertaking the small-group tasks, participants had access to private discussion threads available only to their group and the teaching assistant (# $7b^{(SG)}$ and # $20b^{(SG)}$ in Figure 4.3) in addition to public discussion forums open to the entire class (# $7a^{(SG)}$ and # $20a^{(SG)}$). The remaining 15 tasks had a whole-class discussion-group structure and communication took place via public discussion threads accessible to all twenty students as well as to the two course instructors.

Figure 4.3 Number of Messages per Learning Task



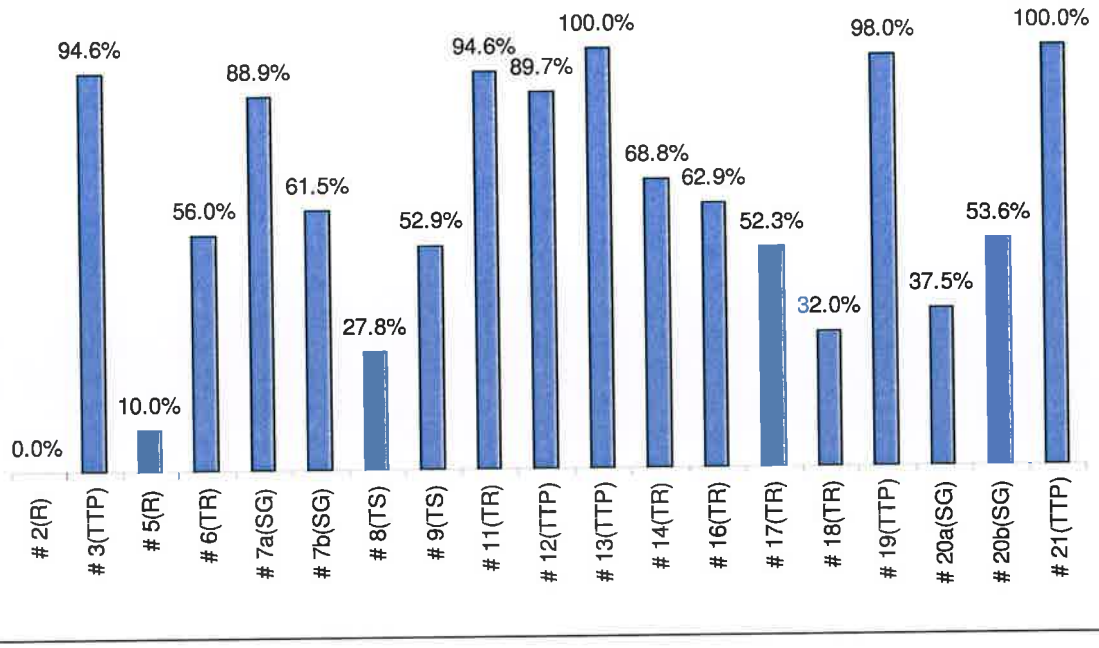
On the basis of the above Figure, we may, once again, draw a number of preliminary conclusions. The task which produced most contributions was # $20b^{(SG)}$, the group evaluation report, where students were allocated to groups of 2 or 3 in a cooperative learning structure, and required to evaluate anonymously the translation work undertaken

by other course participants during the previous week. In addition to the 151 postings to the groups' private conferences (# $20b^{(SG)}$), 8 postings relating to the same task were made to the public conference dedicated to this task (# $20a^{(SG)}$). Apart from this exercise, tasks which generated a high volume of postings included: target-text production tasks (# $3^{(TTP)}$ and # $19^{(TTP)}$), the pair translation task (# $7a^{(SG)}$ and # $7b^{(SG)}$), the ESF Research Project (# $16^{(TR)}$) and the Collocations Project (# $17^{(TR)}$). While Tasks # $12^{(TTP)}$ and # $21^{(TTP)}$ also entailed the production of a translation, they yielded a relatively low number of messages; however, in both cases, there was a comparatively short period of time available for assignment completion. In general, the tasks which yielded a small number of postings did not require production of a translation but involved a translation-related activity such as responding to postings by the course instructors, e.g. Tasks # $2^{(R)}$, # $5^{(R)}$ and # $6^{(TR)}$, or carrying out translation-related research as in Task # $8^{(TS)}$. The lowest number of postings was generated by Task # $13^{(TTP)}$, the optional translation.

4.4.3 Interaction Levels per Learning Task: Intermessage Reference Analysis

As we saw in Chapter 3, analysis of interaction is a useful first step in establishing whether the contributions to a computer conference represent a series of monologues with no reference to other postings, or whether participants are actually interacting with and responding to other messages (see Section 3.8, page 66ff.). Transcripts of online discussions from module GE502 were examined in order to establish how many messages referenced or were referenced by other messages and how many remained unreferenced or 'independent'. Figure 4.4 below shows levels of intermessage references as a percentage of overall message numbers for each of the group-learning tasks in module GE502. No distinction is drawn here between explicit and implicit intermessage references.

Figure 4.4 Percentage of Intermessage References

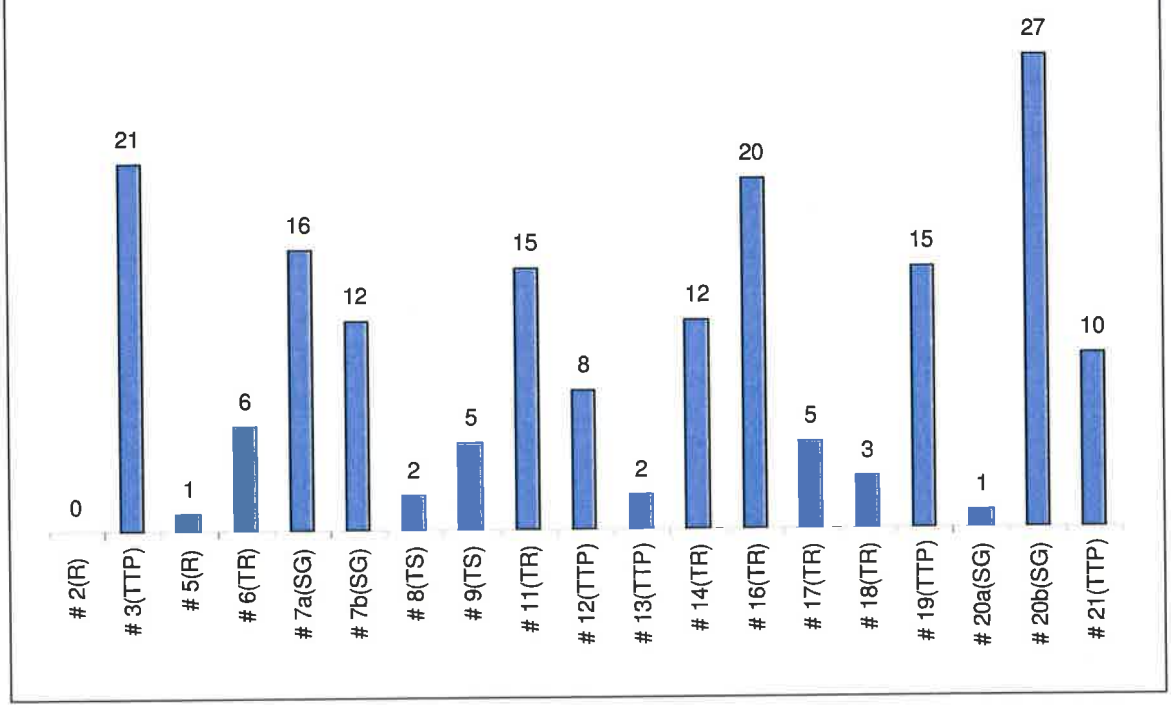


This Figure shows that the highest percentage of intermessage references was found in Tasks # $13^{(TTP)}$, # $21^{(TTP)}$, # $19^{(TTP)}$, # $11^{(TR)}$ and # $3^{(TTP)}$. High levels were also recorded for Tasks # $7a^{(SG)}$ and # $12^{(TTP)}$. As Task # $13^{(TTP)}$ (the optional translation) contained only 4 messages (see Figure 4.3 above), the 100% intermessage references recorded for this exercise does not merit further consideration here. Of the conferences with the highest percentages of intermessage references, all except one (# $11^{(TR)}$, Discussion with Deutsche Bank Consultant) involved the production of a target text by students working individually but in parallel with one another on the translation task (i.e. discussion-group structure). The lowest percentage of intermessage references was found in Tasks # $2^{(R)}$ and # $5^{(R)}$. These conferences illustrate what Henri (1991) calls "serial monologues" with little or no evidence of connection between contributions. Neither task required the production of a learning artefact; rather students were required to post their reactions to instructor postings on the course website. As will be seen in Section 4.6 below, such exercises, classified as 'reflection tasks' in Section 4.3, also attracted negative comment in student surveys.

4.4.4 Interaction Levels per Learning Task: Message Clusters

We saw in Chapter 3 that while Intermessage Reference Analysis is undoubtedly a useful mechanism for obtaining a first impression of the level of connectedness within a computer conference, there is, as Levin et al. acknowledge, "more to the structuring of message interactions than references between messages" (1990: 200; also quoted above in Section 3.9, page 70). Further insight may be gained by examining message clusters, defined as groups of two or more intermessage references. Figure 4.5 below shows the number of message clusters per learning task in module GE502.

Figure 4.5 Message Clusters per Learning Task



This Figure shows that the greatest number of intermessage clusters was found in Tasks # $20b^{(SG)}$, # $3^{(TTP)}$, # $16^{(TR)}$, # $7a^{(SG)}$, # $11^{(TR)}$ and # $19^{(TTP)}$. However, it is also important to take the *size* of the cluster into account when using message clusters as a measurement of interaction levels. A cluster of two messages is usually an indication of an initiation-response sequence (see Mercer 1995: 38 for "traditional, formal question-and-answer" sessions between teachers and pupils) and it may be assumed that a cluster of two

intermessage references is less interactive than a cluster of three, four, five or more messages. Table 4.8 below contains information on the size of message clusters in conferences identified in Figures 4.4 and 4.5 above as having high levels of intermessage references.

Table 4.8 Message Cluster Size

Task #	*Number of clusters*	*2 msgs.*	*3 msgs.*	*4 msgs.*	*5 msgs.*	*> 5 msgs.*
# 3$^{(TTP)}$	21 clusters	7	5	4	2	3
# 7a$^{(SG)}$	16 clusters	5	6	3	1	1
# 7b$^{(SG)}$	12 clusters	10	1	0	0	1
# 11$^{(TR)}$	15 clusters	11	2	1	1	0
# 16$^{(TR)}$	20 clusters	20	0	0	0	0
# 19$^{(TTP)}$	15 clusters	5	5	2	2	1
# 20b$^{(SG)}$	27 clusters	10	9	6	2	0
# 21$^{(TTP)}$	10 clusters	4	4	2	0	0

The analysis of message cluster size draws our attention to Tasks # 11$^{(TR)}$ and # 16$^{(TR)}$ where there is a predominance of 2-message clusters. In Task # 11$^{(TR)}$, a translation consultant from the Deutsche Bank in Frankfurt was invited to join in the conference discussion while students undertook a translation of a Deutsche Bank annual report. Students could ask the consultant questions about her professional life as a financial translator, and the consultant was also invited to join in discussions on terminology research and target-text production as students prepared their assignment. An analysis of the message clusters reveals that 75% of clusters consisted of 2 intermessage references. Most of the communication consisted of initiation–response interactions between individual students and the translation consultant. By and large, communication took the form of a question-and-answer session where students 'interviewed' the consultant about aspects of her work at the Deutsche Bank. There was little evidence here of many-to-many communication or group learning between participants.

The analysis of message clusters in Task # 16$^{(TR)}$ shows that all clusters in this conference comprised two messages. In this exercise, students were required to carry out a research project on the European Social Fund prior to undertaking a translation assignment on the same topic. Completed assignments were uploaded to the Discussion Area so they could

be accessed by all course participants. The preponderance of two-message clusters derived from a simple error on the part of the module instructor who acknowledged receipt of each assignment via the conference area, instead of using the private email function as intended. Thus, while Figure 4.5 suggests a high level of interaction in Task # $16^{(TR)}$ on the basis of message clusters, these two-message clusters cannot, in fact, be considered a true indicator of many-to-many communication or group learning.

On the basis of the numerical analysis techniques used in this section, a number of tasks revealing particularly high levels of participation and interaction have emerged. These were either target-text production tasks implemented using a whole-class discussion-group structure (# $3^{(TTP)}$, # $19^{(TTP)}$ and # $21^{(TTP)}$) or small-group tasks (# $7b^{(SG)}$ and # $20b^{(SG)}$) carried out using a cooperative or collaborative-group structure. It has also emerged in this section that reflection tasks (# $2^{(R)}$) and translation-related tasks (e.g. Tasks # $6^{(TR)}$, $11^{(TR)}$, $14^{(TR)}$, $16^{(TR)}$, $17^{(TR)}$, $18^{(TR)}$), as defined in Sections 4.3.1 and 4.3.4 respectively, produced lower levels of participation and interaction than other task types.

4.5 Changes Made to Module GE502 Prior to 2nd Delivery

In Chapter 3, we saw that action research, which informed the design of the present study, is characterised by an iterative pattern involving "the evaluation of each new phase of development, a consequent reassessment of goals and a new plan by which to proceed" (Tiffin and Rajasingham 1995: 13). On foot of observations made during the first implementation of module GE502, a number of modifications were made to the learning tasks prior to redelivery in 2004/5. The purpose of this section is to describe these changes and to explain the rationale behind them.

Numerical measurements discussed in Section 4.4 of the present chapter show that reflection tasks (e.g. Task # $2^{(R)}$) and translation-related tasks (# $6^{(TR)}$, $11^{(TR)}$, $14^{(TR)}$, $16^{(TR)}$, $17^{(TR)}$, $18^{(TR)}$) produced lower levels of participation and interaction than other task types. This theme will re-emerge in our analysis of student perceptions in the final section of this chapter, and in Chapter 5 when whole-class discussion-group conferences are subject to content analysis using the 'Community of Inquiry' Model. It was therefore decided that fewer tasks of this kind should be included when module GE502 was

redelivered in 2004/5. Table 4.9 below provides an overview of learning tasks implemented during the second delivery of module GE502.

Table 4.9 Online Tasks 2004/5

Task #	*Description*	*Learning Structure*
# I(R)	Reflection on Participation Guidelines	Discussion Group
# II (TR)	Source-Text Analysis	Independent Study
# III(TTP)	Translation of Deutsche Bank Economic Forecast	Discussion Group
# III.A(R)	Reflection on STA	Discussion Group
# IV(SG)	Translation of Bertelsmann Text in Pairs	Cooperative/Collaborative Groups
# IV.A(TS)	Identification of Online Parallel Texts for Bertelsmann translation	Discussion Group
# IV.B(TS)	Production of Bilingual Glossary for Bertelsmann Translation	Discussion Group
# V(TTP)	Individual Translation of Deutsche Bank Quarterly Report	Discussion Group
# V.A(TR)	Discussion with Deutsche Bank Consultant	Discussion Group
# V.B(R)	Reflection on Translation Difficulties	Independent Study
# VI(TR)	Evaluation of Online Discussion Forum	Discussion Group
# VII(TR)	Book Review	Discussion Group
# VIII	Individual Translation of Structural Funds Document	Discussion Group
# VIII Subtask A	Collocations	Discussion Group
# IX(R)	Mid-Semester Evaluation	Independent Study
# X(SG)	Group Translation of German Government Press Release	Cooperative Groups
# XI(SG)	Group Evaluation	Cooperative/Collaborative Groups
# XII(TTP)	Individual Translation of ESF Guidelines	Discussion Group

The above Table shows a total of 4 reflection tasks (# $I^{(R)}$, # $III.A^{(R)}$, # $V.B^{(R)}$, # $IX^{(R)}$) and 5 translation-related tasks (# $II^{(TR)}$, # $V.A^{(TR)}$, # $VI^{(TR)}$, # $VII^{(TR)}$, # $VIII.A^{(TR)}$), as opposed to 6 reflection tasks and 7 translation-related tasks in the first implementation (see Table 4.2 on page 98, Table 4.5 on page 100 above and Appendix I at the end of the study). The object of reducing the number of such exercises was to ease the workload for module participants and to allow for a greater focus on translation activity *per se*.

It was noted in Chapter 3 that one of the main features of case-study research is an *emergent* design, "i.e. making sense of what you find after you've found it" (Gillham 2000: 7). In the present study, the key research question that emerged from the first module delivery was the impact of task design on the quality of group learning in the online module. It was therefore decided that, as well as repeating many of the tasks from the first module implementation, a small-group translation task with a deliberately cooperative structure should be included in Phase 2 (Task # X in Table 4.9 above). While the structure of the pair translation (Task # IV) remained unchanged, some modifications were also made to the group evaluation task (Task # XI). Small-group tasks from both implementations of the module will be discussed in detail in Chapters 6 and 7.

4.6 Analysis of Student Surveys

Before we conclude Chapter 4, the results of student surveys conducted in the middle and at the end of the first delivery of module GE502 will be presented. The purpose of conducting these surveys was to elicit student perceptions of the online learning experience. This information was an important factor in reviewing the first implementation of the module prior to redelivery. It was also triangulated with findings derived from numerical and content analyses of discussion transcripts. Including the surveys at this point will allow us to focus fully in the next chapter on the content analysis of discussion threads with the 'Community of Inquiry' Model.

4.6.1 Mid-Semester Survey

In mid-semester, students were asked in an open-ended question to mail the module instructors outlining their perceptions of the strengths and weakness of the online translation exercise module. All 20 students posted responses. Considerably more

positive than negative feedback was received, with several students stating that the reality of the online module had surpassed their initial expectations. The results of this survey are presented below under five headings: Access; Interaction/Participation; Discussion Conferences; Development of Translation Competence; Other Comments.

Access: Time and Place

One of the aspects of the online learning environment that attracted most comment was independence of time and place. Of the 20 respondents, 10 commented favourably on the flexibility of being able to access the course website wherever and whenever they liked, with some students expressing a preference for logging on in the evenings and at weekends, rather than being tied to a lecture schedule. A further aspect of the time dimension which attracted positive comment was the ability to work at an individual pace while at the same time meeting deadlines specified by the module instructors. As one student remarked: "I liked being able to take my own time with translations etc (while also sticking to a schedule)".

The question of time also attracted negative comment. Some students stated that the online module required a greater time investment than face-to-face classes. One participant commented: "sometimes it did feel like economic translation was taking over my entire week". Two aspects of the online translation module were highlighted as particularly time-consuming. One was the need to log on almost daily in order to read the minimum of 40 messages being posted every week by the 20 course participants (not to mention additional instructor postings). The second related to the semi-specialised nature of the subject matter, which posed a particular challenge to students unfamiliar with economic content and terminology. This difficulty would have existed, however, regardless of whether the class was conducted in a virtual or face-to-face classroom. In one student's words:

> the texts always demanded more of me, cos im not familiar with that style. i dont think the texts were excessively long but those relatively short extracts from the Deutsche Bank text proved hugely difficult!

On the question of access, one respondent remarked that she felt disadvantaged by the lack of Internet access from home. While every effort was made to ensure that online

students could access a computer network on campus (see Section 4.1.5 above), it cannot be denied that participants who were unable to log on outside the University were at a disadvantage.

Interaction and Participation

After the issue of access, the interactive nature of the online medium attracted most positive feedback. Several respondents remarked that the virtual classroom was less teacher-student and more student-student oriented than the traditional classroom. As a result, "we get to interact with everyone, exchange ideas, ask and answer questions, that there wouldn't be time or scope for during a classroom session". Students liked being able to post questions to the discussion forums while working on an assignment, since their classmates were "very quick to help and to answer other people's problems and queries". They also appreciated the frank discussion of translation problems, the pooling of knowledge and the sharing of multiple perspectives. Several participants referred to the open, uncompetitive and supportive atmosphere in the online classroom. As one student stated:

> I also found that there wasn't the same level of competitiveness that you would normally find in a classroom situation. I found that everyone was open with their work and treated the course as an environment where everyone can learn from one another.

Students' comments support findings from the research literature that online education is more egalitarian than its face-to-face equivalent. (Paloff and Pratt (1999: 15), for example, refer to the online medium as "the great equalizer".) It was felt that no-one could hide as everyone was obliged to contribute. One participant remarked on the "levelling out effect" of discussions conducted online:

> particularly in getting people to speak their mind who normally wouldn't! In fact, it might actually have a kind of, bridging the gap between the "speakers" and the "listeners".

It must be stated, however, that even in an online classroom, learners may lack confidence in the relevance of their contributions and may be intimidated by the permanent written record of their contributions. As a result, some do not like being compelled to contribute. One participant expressed doubt in her ability to answer other people's questions. She found it difficult to "put threads up every week that are

of significance". She stated furthermore that in both the online and the face-to-face classroom, "some people are willing to talk all day, while others aren't". We are reminded here of Paloff and Pratt's finding, referred to in Chapter 2, Section 2.3.4 (page 34) that inexperienced students may be reluctant to contribute due to a lack of confidence. Paloff and Pratt assert that "when students have never interacted in a course through the use of technology, they may hold some fears about how their messages are being received and interpreted by others" (1999: 68).

Discussion Conferences: The 2-Postings per Week Rule

By far the most contentious issue with respondents was the 2-postings per week rule. A clear majority objected to having to make two postings a week, with one suggesting 25 postings spread over the whole course as a better option. While students acknowledged the richness of shared knowledge, some argued that the postings rule led to a degree of repetition with "everyone [...] saying more or less the same thing". The 2-postings regime yielded a vast number of messages, which one student found frustrating "to plod through [...] when you have a million and one other things to get done". Participants also stated that the sheer volume of postings was confusing and made it difficult to keep track of individual contributions.

The Development of Translation Competence

Students commented positively that the online module had helped them to acquire the skills and competences required of a professional economic translator. The remarks cited here may be regarded as evidence that functionalist and social constructivist principles of authenticity and group work identified in Chapter 2 were successfully implemented in the online translation classroom. Two respondents referred to the development of IT skills, and one of these also stated that he had "learnt more about [...] terminology, learnt a lot about improving the way I translate". Others praised the variety of translation resources to which they were exposed, and the fact that all electronic and online resources were integrated into one platform, facilitating ease of access. One participant commented that "guidance about online resources, especially parallel texts is very useful". Another that the variety of resources, "parallel

texts, google, comments of classmates", was typical of "the way it is when you are a professional translator". The authentic nature of the online translation activities, particularly those involving small-group interaction, was noted by a number of participants and is best illustrated in the following posting:

> we must imagine how helpful the system could be if we were a team of translators situated around the world, working, say, in the same department of the same company, but in different languages.

Other Comments

In addition to the high volume of discussion postings, two further negatives were pinpointed by students. The first was the potential for lasting misinterpretations in text-based communication and the fact that "it takes a long time till misunderstandings are discovered and solved". The second concerned the impersonal nature of the virtual classroom. A number of participants stated that while they knew the names of people in the course, they couldn't put a face to the name. While this might be the norm in a distance-learning situation, one said, it seemed artificial in a course where students were actually on campus. This problem could be remedied by use of a VLE in which there is the facility for a viewable profile of participants with photographs.

On a positive note, two students remarked that the online medium forced them to be more independent and self-motivated: "it [the course] seems to be less spoonfeeding and more emphasis on our own efforts". One praised the "clear structure of the course" and two also commented positively on the integration of all module-related materials – course content, resources, text-based discussions, instructor feedback – into a single platform.

4.6.2 Post-Course Survey

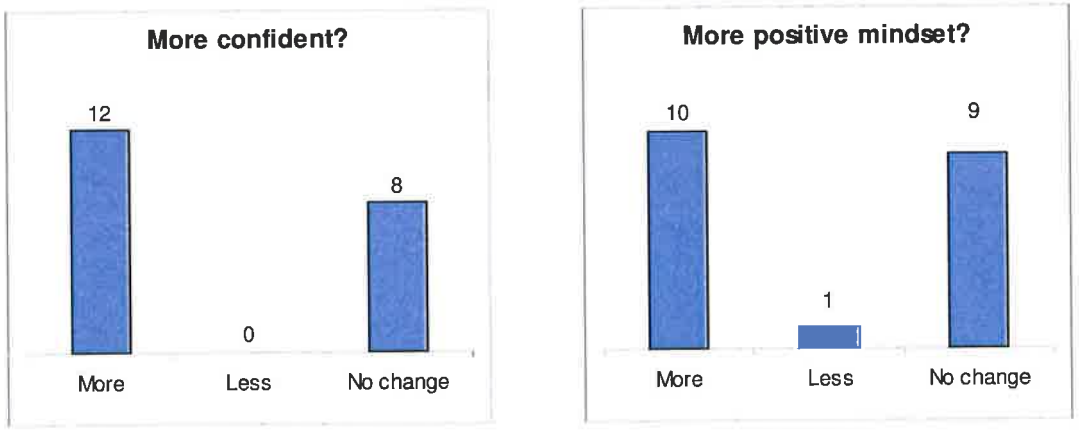
At the end of the semester, students were asked to complete a post-course survey. This included open and closed questions on the following areas: technology, expectations, workload, feedback, assessment and collaboration. In a final, open-ended question participants were asked to put forward suggestions for improvements to the online

module. (See Appendix K at the end of the study for full details of questions asked in the post-course survey.)

Technology

3 questions in the post-course survey dealt with technology. Two of these were closed questions, asking whether taking the online module had made participants more confident in their ability to use computer technology and whether their mindset about using computer technology had become more positive as a consequence. Results from these questions were largely positive, although a large number of students reported 'no change' in one or both categories (see Figure 4.6 below).

Figure 4.6 Attitudes to Technology



Participants were also asked to comment on any difficulties they had experienced using the online learning platform during delivery of module GE502. Ten answered with an unqualified endorsement of the technology: it was "`user-friendly`", "`simple`", "`straightforward`", "`actually fine`". Four qualified primarily positive comments by pointing to initial difficulties with uploading files and sorting discussion postings. Six students identified problems with Internet research, use of discussion boards and lack of clarity in course content pages.

Expectations

Participants were invited to comment on the extent to which the online module had met their expectations. Although this question was asked at the end of the course, answers here reveal a certain amount about how students had been feeling *at the beginning*. While three said they had had no expectations at the outset, six referred to initial feelings of "bafflement", "apprehension", "scepticism", "doubt" and "worry". Eight said the module had exceeded their initial expectations, proving to have many advantages such as flexibility of time management, "the level of information available from other students" and "the ability to ask the whole class for help/their opinions, without feeling self-conscious".

Time/Workload

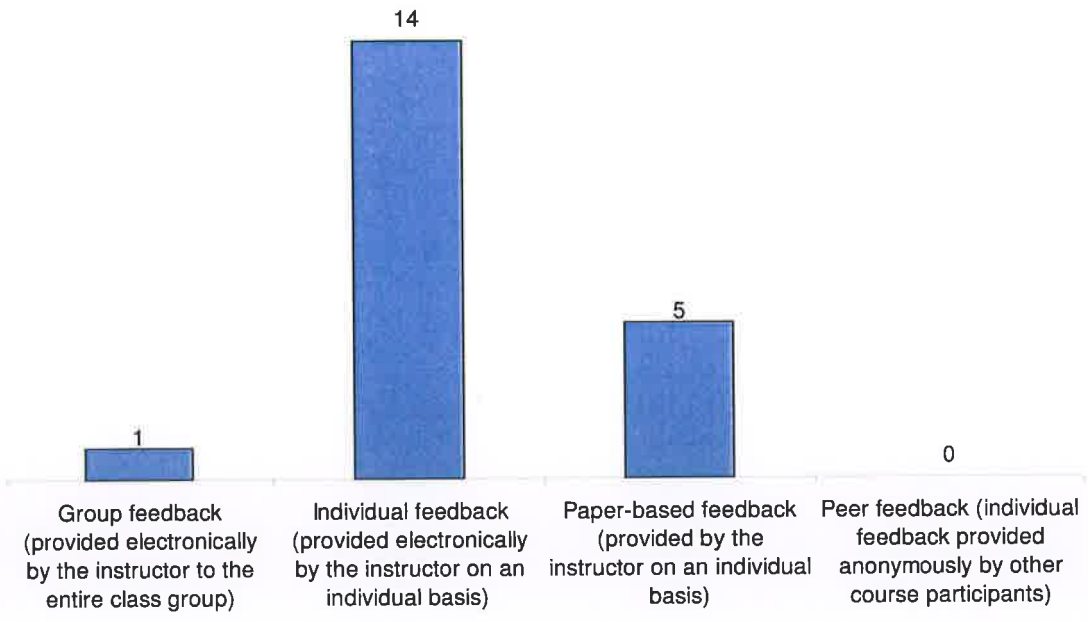
Students were asked to reflect on the workload involved in the online module and on whether they felt that electronic delivery increased or decreased the overall time spent on course-related activities. When answering this question, they were requested to bear in mind that Web-based instruction involves no class contact time unlike its face-to-face equivalent which requires 3-4 hours physical presence weekly. Only four students felt that the workload was similar to or less than in the conventional classroom. All others stated that they had spent more time on the online module than on other modules in the same semester. A number of reasons were cited for this. Three students felt that economic translation was by nature more difficult and required more research than texts of a more general nature, thus reflecting a finding from the mid-semester survey (see Section 4.6.1 above). Two students cited their unfamiliarity and insecurity with technology as an obstacle causing them to spend more time on the online module. An interesting point from the instructors' perspective was made by one student who felt that because the module was online and accessible 24 hours a day, "there is less scope for excuses not to hand in an assignment in time. With any other module, the student can pick and choose the assignments they want to do etc." Six students commented on the amount of time needed to read, compose and respond to messages. Finally, four students referred to the additional, non-translation-focussed tasks as both time-consuming and a source of frustration. This is illustrated in the following

posting: "a large part of the time spent was not directly related to actual translation and involved giving feedback on the technology etc. which is time-consuming and not of any benefit to the student".

Feedback and Assessment

Three questions in the post-course survey referred to assessment. One of these related specifically to the group evaluation task and will be discussed in Chapter 7 which examines group evaluation tasks in detail. Of the remaining two questions, the first dealt with students' preferred method of feedback on assignments. Figure 4.7 illustrates a clear preference for electronic feedback provided by the instructor on an individual basis and a dislike of both group feedback (provided by the instructor to the entire class group) and peer feedback (provided anonymously by other course participants on an individual basis).

Figure 4.7 Feedback



The question of instructor feedback goes beyond the scope of this study, but it is undoubtedly one that poses considerable challenges to the online tutor, particularly in the

area of translation instruction with its intense focus on matters of lexis, syntax, register and style. The above Figure shows that students want personal feedback, they want it from the instructor and they prefer to receive it electronically. However, providing written and electronic feedback on an individual basis is extremely time-consuming for the instructor. In order to address this problem, Campbell (2004) developed a colour coding scheme to categorise strengths and weaknesses in students' target texts. 'Red' indicates a serious problem; 'yellow' a minor problem etc., and a global mark is awarded based on the amount and type of colour distributed throughout the target text. Yet even this scheme, which lacks some of the objectivity of a numerical scoring system, is acknowledged by the author to be very time-consuming, with correction rates averaging 10 – 12 words per minute (see Campbell 2004: 122).

The second question relating to assessment in the post-course survey was an open-ended question in which students were asked their opinions on how they felt the module should henceforth be assessed. In the first implementation, module GE502 was examined at the end by a conventional 2-hour, pen-and-paper examination (in addition to the 10% allocated on the basis of online activity). Instructors were aware from the beginning of a mismatch between this mode of assessment and the learning goals defined in the module syllabus. However, they were unable to change the format of the examination, which was laid down by University regulations, in time for the first implementation of module GE502. At the final face-to-face meeting, a number of alternatives were put to students to consider for future assessment of the module: retention of the 2-hour written examination; continuous assessment throughout the semester; or an end-of-semester online project with a strict time limit of one working day. The post-course survey showed that students' preferences lay with continuous assessment (13 respondents) followed closely by an online project (11 respondents), with several suggesting a combination of both. In an online project, one student stated, "not only the translation ability would be assessed but also the ability for terminology and subject field research, which I thought was quite a central point in this module". Continuous assessment, on the other hand, would have an administrative advantage "because it is very easy to assess the students' work as it is all stored in the 'computer'".

Interaction

Participants were asked to comment on how useful they found it to be able to interact with other students, instructors and guests in the Discussion Area. 15 students said they found it "very useful", and three that it was "the best aspect of the online environment". Some put this down to the cognitive assistance they had received in the Discussion Area: "the ability to share resources and ideas" and receive support for "translation related questions like target text formulation and terminology research". Others cited affective factors: "there was an encouraging atmosphere in that no question was too silly to ask"; "you felt a great deal of support from other students"; and "it helped a lot to know, that I'm not alone, and that other students have the same difficulties as I do". Five students took the opportunity to contrast online interaction with its conventional, face-to-face equivalent. One felt that "face to face, the discussions would have been fuller and hence more informative" while the other four believed that there was more and better interaction online. On a negative note, one student commented that the online discussions became "messy" towards the end of the semester and that it became "more and more difficult to find postings"; one criticised the time lag between posting a question and receiving an answer; and in a contribution reminiscent of the lack of confidence expressed in the mid-semester survey cited in Section 4.6.1 above, one student remarked that "it happened plenty of times that I wanted to contribute to a discussion, but didn't for fear of being wrong".

Improvements to Module

In a final, open-ended question, students were asked to comment on changes they felt should be made to improve future delivery of the module. Contributions were posted on a wide range of issues with no particular theme emerging as a predominant concern. Interestingly, only two referred to the 2-postings rule, suggesting that it should not be obligatory; this represents a considerable change from the mid-semester survey where students had been particularly vocal in their opposition to this stipulation (see Section 4.6.1 above). This about-turn may be explained by the fact that following the mid-

semester survey, the structure of the discussion conferences was changed by the module instructors. Initially, conferences had been set up around aspects of the translation process: source-text analysis, terminology research, target-text production etc. (see Section 4.2.3, page 94/5). This meant that while working on any one assignment, students had to post and keep track of messages in several different conferences, something they found "confusing", "frustrating" and "overwhelming". This problem was addressed by structuring conferences around assignments: each conference was now linked to a particular assignment and remained open only for the duration of that assignment after which it was available for read-only access. The new structure was also retained for the second delivery of the module.

Four students felt there could be more clarity in instructions, particularly relating to assignments. Several participants said there should be more focus on translation and less on 'other' tasks including both reflection exercises and translation-related tasks like summaries, collocations and evaluations. In the words of one student, she wanted "less time filling out questionnaires and offering opinions on computer technology when at the end of the day it is not improving our translation skills". Another called for "shorter translations more frequently and less subtasks". With regard to texts chosen for translation purposes, four participants felt they should be shorter, and two that the subject matter should be more varied. Only one student referred to small-group work in a comment that is of larger relevance to the present study: "[it] seemed pointless to me, as far as my groups were concerned, everybody just did their own thing anyway and only posted it together in the end". This comment is clearly referring to a cooperative-group structure where the work was divided into chunks completed separately by individual students and would appear to support Damon and Phelps contention cited in Chapter 2 (page 45) that learning activities involving task specialisation impact negatively on mutuality because they cause much of the work to be done on an individual basis. We will return to this question when we examine tasks with a cooperative-group structure in Chapters 6 and 7.

4.6.3 Student Surveys: Implications for Research Questions

What implications do the findings presented in this section have for the research questions in the present investigation, and how do they triangulate with results of numerical measurements of participation and interaction presented in Section 4.4 above? With regard to the main research question – the impact of task structure on the development of group learning in an online translation classroom – it is clear, first of all, that a majority of students felt that interaction via the discussion threads had been very successful on both a cognitive and affective level. The discussion-group structure was not explicitly mentioned by students, but several referred to it implicitly, commenting favourably on the variety and breadth of contributions generated by whole-class discussion of translation problems, and the generally uncompetitive atmosphere in the online classroom. Small-group tasks attracted both positive and negative comment: some students liked the authentic nature of such tasks, but others disliked the fact that, where a cooperative structure and task specialisation were involved, much of the work was done on an individual basis with little interaction between group members.

Student perceptions triangulate with numerical analyses of discussion transcripts presented in Section 4.4 and summarised on page 110 above. In the surveys, students expressed a dislike of reflection tasks and translation-related tasks, which, they felt, were time-consuming, did not improve their translation skills and resulted in "`everyone [...] saying more or less the same thing`" (also cited on page 115 above). Similarly, the numerical measurements presented in Section 4.4 identified reflection tasks and translation-related tasks as generating the lowest levels of participation and interaction, while target-text production tasks implemented using a whole-class discussion-group structure (# $3^{(TTP)}$, # $19^{(TTP)}$ and # $21^{(TTP)}$) and small-group tasks (# $7a^{(SG)}$ and # $20b^{(SG)}$) carried out using a cooperative or collaborative-group structure were deemed most successful on the basis of these measurements.

Student surveys also yielded valuable additional information on subsidiary research questions relating to the benefits and challenges of Web-based translator training. Students appreciated the independence of time and place provided by the online learning environment. They found the experience to be more student-centred than the

conventional classroom, and also stated that they had improved their IT skills and general translation competence through participation in the module. On a negative note, students noted the increased time investment required for participation in the online module; the impersonal nature of the virtual classroom; the potential for misinterpretations; a lack of Internet access from home; and, in some cases, insecurity about the value of their contributions to the discussion threads.

4.7 Chapter 4: Concluding Remarks

This chapter has provided an overview of the design principles and learning tasks implemented during delivery of online module GE502. It shows how the functionalist and social constructivist principles identified in Chapter 2 were used to design an online translation classroom where the emphasis was on authentic translation practice and on the facilitation of teamwork and interaction between participants.

Important implications for the provision of translation instruction in a virtual learning environment were highlighted. These include the need to build a degree of flexibility into the course structure, while at the same time carefully planning all aspects of the course content in advance. Students (and instructors) require training in using the virtual learning environment. Ease of access must also be ensured. Decisions must be taken regarding the extent to which the VLE will be used to replace or supplement classroom-based instruction. And students need to be provided with participation guidelines alerting them to what they might expect from the online instructional situation.

In this chapter, we provided an overview of the learning tasks implemented during module delivery. These were grouped into five types: reflection tasks, translation subtasks, target-text production tasks, translation-related tasks and group tasks. Details were also given of the group-learning structure associated with each task. Initial numerical measurements of discussion threads allowed us to draw some preliminary conclusions about the types of task that promoted high levels of participation and interaction between learners. These were the target-text production tasks (discussion-group structure), the pair translation exercise (cooperative/collaborative-group structure) and the group evaluation task (cooperative-group structure). Results were corroborated

via triangulation with student perceptions from mid-semester and end-of-semester surveys which identified target-text production tasks and small-group tasks as those most favoured by students.

Data analysis continues in the next chapter when discussion threads relating to the 15 group-learning tasks implemented using a whole-class discussion-group structure during the first delivery of module GE 502 are subject to content analysis using the 'Community of Inquiry' Model.

5 Whole-Class Discussion-Group Tasks

In Chapter 2, a distinction was drawn between a number of different group-learning structures. We saw there that such approaches may be viewed as a continuum between more structured (cooperative) and less structured (collaborative) methods. We also saw that group-learning techniques can be classified on the basis of the learning product, which may be a joint undertaking or the result of individual effort. In all, we identified three group-learning structures: *discussion groups*, where students create an individual product, but work in parallel on the same tasks, providing support to one another in large discussion groups through group dialogue and debate; *cooperative groups*, where small groups of students (between 2 and 4) create a joint product having divided the learning task into subdivisions and allocated these to individual group members; and *collaborative groups*, where small groups of students create a joint product while interacting on all aspects of the task.

In this chapter we will investigate the whole-class discussion-group tasks implemented during delivery of module GE502. These will be evaluated using the 'Community of Inquiry' Model discussed in Chapter 3 (see Section 3.10, pages 73–78.). Of the 22 learning tasks identified in Section 4.3 of the last chapter, 15 had a discussion-group structure. The predominance of this approach in module GE502 was due to a number of factors. Firstly, the research literature on online group structures reviewed in Chapter 2, Section 2.4.5 suggests that the allocation of individual responsibility for the learning product suits the online learner and the virtual learning environment (see page 48ff.). And secondly, before the module instructors settled on an assignment schedule for the 2nd half of the semester, their review of learning tasks from Weeks 1 – 7 led to a deliberate decision to proceed with an emphasis on this type of structure.

The 15 discussion-group tasks identified for analysis in this chapter include target-text production tasks, reflection tasks, translation subtasks and translation-related tasks as defined in Chapter 4 (Section 4.3). The two public discussion forums set up alongside private conferences during small-group tasks (# $7a^{(SG)}$ and $20a^{(SG)}$) are included for analysis in this chapter. They are considered here because they were unstructured

conferences open to all participants where students working in small groups were encouraged to make postings relevant to the entire class group.

Throughout the first delivery of module GE502, a total of 567 messages were posted to the 17 discussion-group conferences. This represents roughly two-thirds of the total number of 869 conference messages. The present chapter contains two sections. In the first, Section 5.1, a content analysis of the 17 whole-class discussion conferences will be provided using the 'Community of Inquiry' Model. In Section 5.2, a selection of these tasks will be examined in further detail using the same content analysis methodology. The purpose of the chapter is fourfold: to gain an overview of discussion-group conferences in terms of the three presences comprising the 'Community of Inquiry' Model; to make a more informed evaluation of the 'Community of Inquiry' Model itself; to compare the group-learning experience across different types of discussion-group tasks; and to triangulate findings from the content analysis presented here with student perceptions and numerical analyses conducted in the last chapter.

5.1 Investigating Discussion-Group Tasks with the 'Community of Inquiry' Model: Overview

The 'Community of Inquiry' Model has already been discussed in earlier chapters, so a brief synopsis must suffice here. According to Garrison et al., "a worthwhile educational experience is embedded within a Community of Inquiry" (2000: 88). A learning community is seen as the appropriate context in which to foster dialogue and reflection, which are the building blocks for the construction of meaning and understanding. The model assumes that learning in an educational setting, and online learning in particular, require the interaction of three dimensions: social presence, teaching presence and cognitive presence. Social presence is the ability of learners to relate to one other on a personal level. Cognitive presence is the process of meaning construction through collective inquiry. Finally, teaching presence structures and shapes the educational process in a way that ensures a meaningful educational experience. As we saw in Chapter 3 (Section 3.10), it is at the intersection of all three that a quality educational experience may be achieved (see Figure 3.3, page 74).

In developing the 'Community of Inquiry' Model, the authors designed three rubrics to enable the researcher to analyse computer transcripts of online discussions for evidence of the three presences (see Tables 3.1 – 3.3, Chapter 3, and Appendices A, B and C at the end of the study). These rubrics will now be used to evaluate group learning in the 17 discussion-group conferences. This will also enable us to analyse the model's usefulness and applicability to the present study.

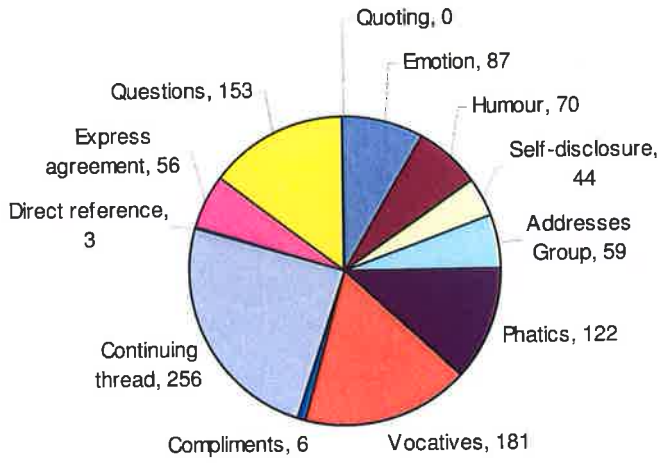
5.1.1 Social Presence in Module GE502

Social presence has been defined by Garrison et al. as "the ability of participants in a community of inquiry to project themselves socially and emotionally, as 'real' people (i.e., their full personality) through the medium of communication being used" (2000: 94) (also cited on pages 35 and 76 above). While social presence is important in any educational setting, it is particularly significant in online learning where there is an absence of visual cues and a reliance on text-based communication. Garrison and Anderson refer to the unique challenge of "creating a cohesive community of inquiry in a medium that provides no visual cues other than words or images on a screen" (2003: 48). Establishing social presence has both an emotional and a cognitive function. It helps to create a warm, unthreatening and open environment, in which learners feel a sense of belonging and are encouraged to ask questions, express disagreement and contribute ideas and opinions in an uninhibited fashion. Paloff and Pratt talk about the need to establish an atmosphere of safety and security in which learners are "able to speak and debate their ideas without fear of retribution from any source" (1999: 20).

The analysis of social presence in the 17 discussion-group conferences using the rubric developed by Rourke et al. (1999) revealed a total of 1,037 examples across the 17 conferences. Figure 5.1 below shows the indicators used to assess social presence and the number of instances found for each across the 1,037 instances. We see there that 'continuing a thread' was the most frequently recorded indicator of social presence. This was followed by 'vocatives', i.e. addressing or referring to other course participants by name, and 'asking questions' of other students/instructors. No examples of using the software feature to 'quote from others' messages' were logged, while 'compliments' and

'direct references' to the content of others' postings recorded very low frequencies (see Appendix B for definitions of each of the indicators).

Figure 5.1 Social Presence per Indicator in Module GE502

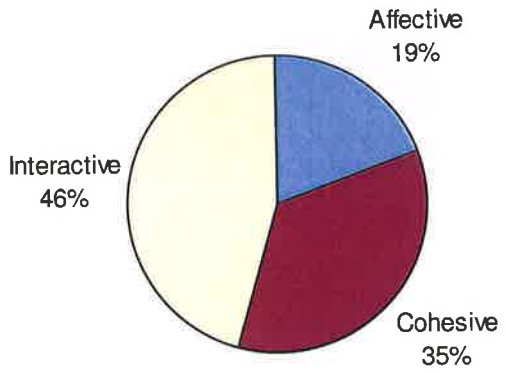


In their discussion of social presence, Rourke et al. (1999: 15) assign equal weighting to each of the 12 indicators, although there is some disagreement on this point amongst the authors of the 'Community of Inquiry' Model. For example, while Garrison and Anderson (2003: 54) point to 'humour' as an indicator which should be used sparingly in the text-based medium, as it is open to misunderstanding and can lead to individuals feeling isolated, Rourke et al. (1999) cite research by Eggins and Slade (1997) stressing the importance of humour as an indicator of social presence and postulating a connection between humour and critical discourse. If we examine Figure 5.1 again, we see that humour was among the seven most frequently catalogued indicators of social presence in module GE502.

As discussed in Chapter 3, Section 3.10.2, Rourke et al. (1999) group the indicators of social presence displayed in Figure 5.1 into three categories: *affective* (emotion, humour, self-disclosure); *cohesive* (addressing group, phatics, vocatives); and *interactive* (asking questions, continuing a thread, expressing agreement, complimenting others on the

content of their messages, quoting others' messages, and direct reference to the content of others' messages). When these categories are used to analyse postings to the 17 discussion-group conferences, the results show a preponderance of interactive messages as displayed in Figure 5.2 below.

Figure 5.2 Social Presence per Category



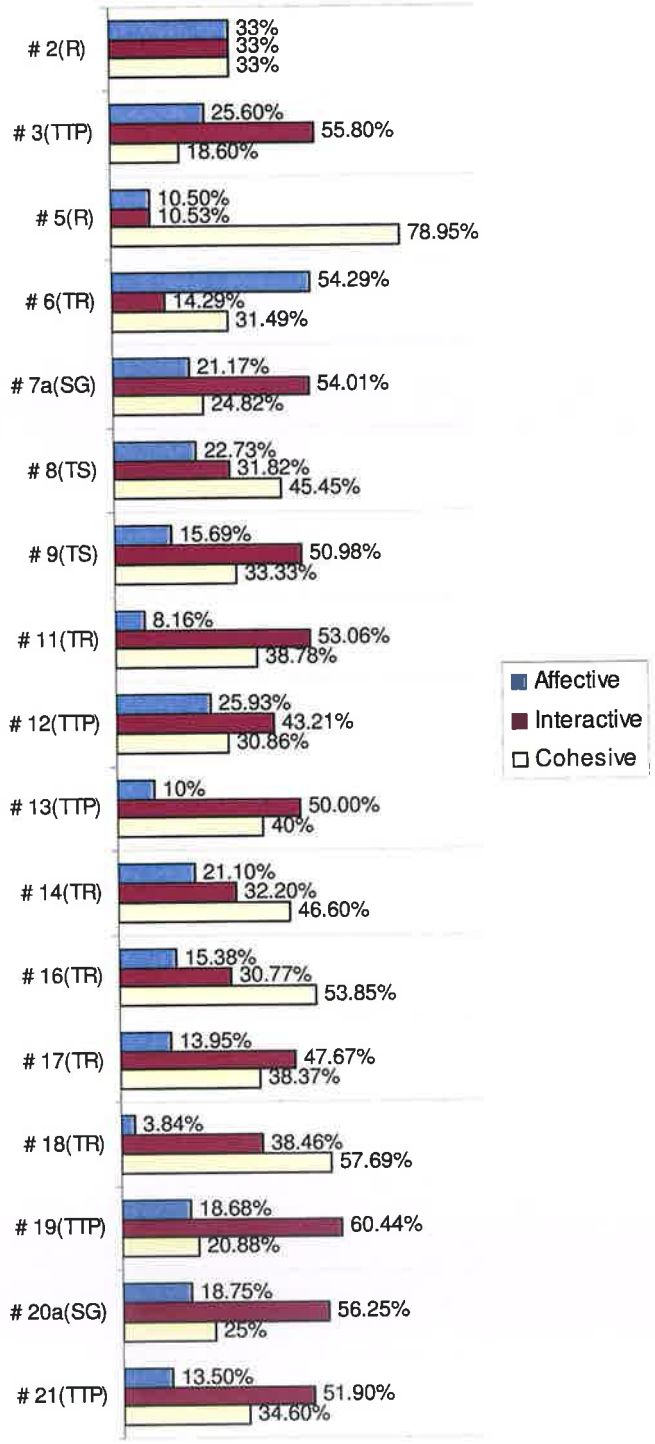
Rourke et al. (1999) do not attempt to prioritise any one of the three categories in terms of its contribution to the creation of social presence. Each has a role to play. Affective responses, such as the use of humour and emotion, and the disclosure of personal information ('self-disclosure'), help to reduce social isolation. Cohesive responses, i.e. phatic communication including the use of vocatives, referring to the group as 'we' and 'us', remarks about the weather and other trivial matters, help build and sustain a sense of group identity. Finally, interactive contributions, i.e. using the reply feature, quoting from others' messages and asking questions of other participants "tacitly indicate interpersonal support, encouragement, and acceptance of the initiator" (Rourke et al. 1999: 8).

Despite the non-hierarchical presentation of these categories by the authors of the 'Community of Inquiry' Model, it is this researcher's contention that social presence indicators belonging to the 'interactive' category are the best gauge of the existence of a

community of *inquiry*, i.e. a community that supports a quality group-learning experience. Evidence for this hypothesis may be found in the analysis of Figure 5.3 below which shows the allocation of social presence categories across each of the 17 discussion-group conferences.

If we examine the tasks identified in Chapter 4 as revealing the highest levels of interaction (# $3^{(TTP)}$, # $7a^{(SG)}$, # $19^{(TTP)}$ and # $21^{(TTP)}$), we find that the results of the Intermessage Reference Analysis conducted there are supported by the analysis of social presence, and the 'interactive' category in particular, in Figure 5.3 below. In each of these exercises, 'interaction' predominates: 55.5% of social presence indicators in Task # $3^{(TTP)}$, 54.01% in Task # $7a^{(SG)}$, 60.44% in Task # $19^{(TTP)}$ and 51.9% in Task # $21^{(TTP)}$. While Tasks # $13^{(TTP)}$ and # $20a^{(SG)}$ also record high levels for the 'interactive' category, these activities, as discussed in Chapter 4, contain very low numbers of messages (4 for Task # $13^{(TTP)}$, the Optional Translation, and 8 for # $20a^{(SG)}$, the public conference supporting the small-group evaluation task) and do not allow meaningful conclusions to be drawn.

Figure 5.3 Social Presence Categories per Learning Task



A final measure of social presence discussed in Chapter 3, Section 3.10.4 (page78/9) is "social presence density" (Rourke et al. 1999: 14), which involves summing the raw number of instances of social presence, dividing this by the total number of words per conference transcript and multiplying the result by 1,000. The results of this analysis are presented in Figure 5.4 below.

Figure 5.4 Social Presence Density per Learning Task

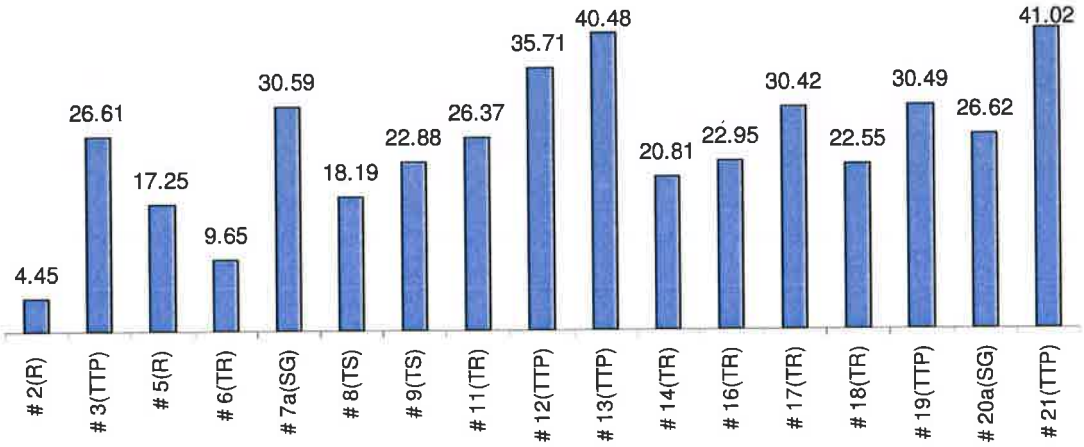


Figure 5.4 shows that Tasks # $3^{(TTP)}$, # $7a^{(SG)}$, # $11^{(TR)}$, $12^{(TTP)}$, # $17^{(TR)}$, # $19^{(TTP)}$ and # $21^{(TTP)}$ display the highest levels of social presence density. Once again, the volume of messages in Task # $13^{(TTP)}$ (4 messages) is too low to allow meaningful conclusions to be drawn. The average level of social presence density across the 17 discussion-group conferences is 25.12. While this figure means little in isolation, it does allow us to compare levels of social presence density across tasks and conferences.

A fundamental question arises in this context: is there an optimal level of social presence? The difficulty in quantifying ideal levels of social presence is addressed by Garrison and Anderson (2003) as follows:

> Too little social presence may not sustain the community. On the other hand, too much social presence may inhibit disagreement and encourage surface comments and social banter. After all, the primary goal is not simply social interaction and sustaining the group for the group's sake. The group sustained by social presence is a means to an end. (Garrison and Anderson 2003: 53)

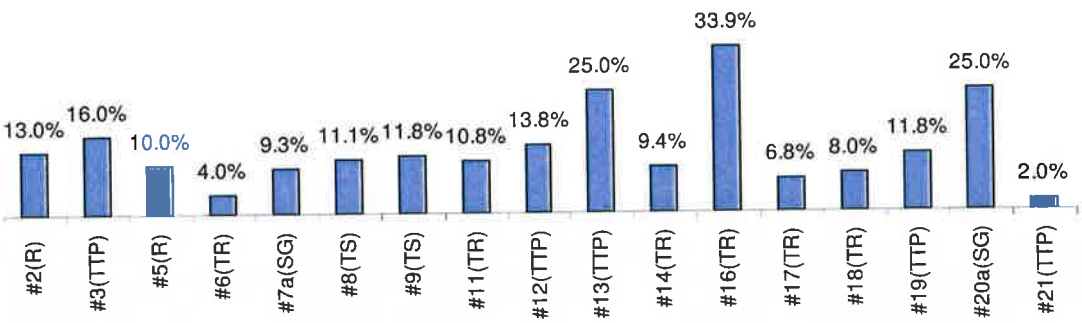
The "end" envisaged by Garrison and Anderson is a quality learning experience and what matters is that the level of social presence supports this end. We may deduce from this that social presence density on its own cannot be taken as a definitive indication of the existence of a functioning community of inquiry. However, we may also note that tasks identified in Chapter 4 as revealing the highest levels of interaction (# $3^{(TTP)}$, # $7a^{(SG)}$, # $19^{(TTP)}$ and # $21^{(TTP)}$) all display higher than average levels of social presence density in Figure 5.4 above (26.61 for Task # $3^{(TTP)}$, 30.59 for Task # $7a^{(SG)}$, 30.49 for Task # $19^{(TTP)}$ and 41.02 for Task # $21^{(TTP)}$).

5.1.2 Teaching Presence in Module GE502

We saw in Chapter 3 that teaching presence, like social presence, supports cognitive activity in a community of inquiry (see Section 3.10.3, page 77/8). We also saw there that teaching presence in the online setting (as in the physical, observable classroom) consists of three elements: design, direct instruction and discourse facilitation. In all, Anderson et al. (2001) identify 18 indicators of online teaching presence which they group under these three headings (see Table 3.3, page 77 and Appendix C at the end of the study). The 'design' element involves planning and administering the instruction, as well as assessing and certifying competence. 'Direct instruction' calls on the teacher's scholarly leadership to inject knowledge, diagnose misconceptions and present questions. Finally, 'discourse facilitation' requires managing student discussions and encouraging quality contributions.

In the present study, teaching presence was first measured by calculating the combined number of postings by instructor and teaching assistant as a percentage of the total number of messages per learning task. The results of this calculation, which we might refer to as 'teaching presence density', are presented in Figure 5.5 below.

Figure 5.5 Teaching Presence Density per Learning Task



This Figure reveals highest levels of teaching presence for Tasks # $13^{(TTP)}$ (Optional Translation Task), # $16^{(TR)}$ (ESF Research Project) and # $20a^{(SG)}$ (the public conference supporting the small-group evaluation task). However, as already noted, the low number of overall postings in Tasks # $13^{(TTP)}$ and # $20a^{(SG)}$ (4 and 8 respectively) does not support meaningful analysis. Elevated levels of instructor messages in Task # $16^{(TR)}$ were discussed in Chapter 4, Section 4.4.4 (page 109/110) where they were shown to have resulted when the instructor mistakenly posted individual feedback to the public conference, instead of via the private email facility. If we exclude Tasks # $13^{(TTP)}$, $16^{(TR)}$ and $20a^{(SG)}$ from the analysis, we find an average teaching presence of 9.84% across the remaining 14 conferences. While the calculation of teaching presence density enables us to compare levels of teaching presence across different tasks, as in the case of social presence there is no recommended optimal level of teaching presence in the 'Community of Inquiry' literature. As Garrison and Anderson argue, "too little or too much teaching presence may adversely affect the discourse and the process of building understanding" (2003: 69). We may conclude that, like social presence, levels of teaching presence cannot be considered in isolation as evidence of an effective community of inquiry. However, it will emerge in what follows below that the teaching presence rubric is a useful descriptive tool which enables the researcher to paint a full picture of instructor activity in the discussion conferences.

Returning to the three categories of teaching presence identified at the start of this section – design, direct instruction and discourse facilitation – a calculation was made of the relative weight for each category in the 95 instances of teaching presence found across the 76 teacher postings. (It is important to note that, as Anderson et al. (2001) point out, a teacher posting may contain more than one indicator or category of teaching presence.) The results of this calculation are presented in Figure 5.6 below.

Figure 5.6 Overall Categories of Teaching Presence

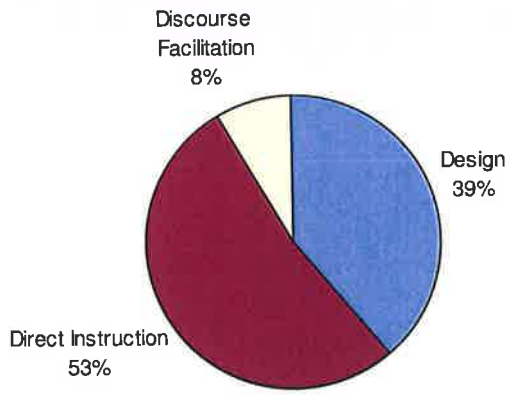


Figure 5.6 shows that of the 95 instances of teaching presence, 53% were categorised as 'direct instruction' and 39% as 'design', while 'facilitating discourse' recorded the lowest frequency at 8%. The most noticeable aspect of this Figure is the low reading for the 'discourse' category. This mirrors a piece of research carried out by Heckman and Annabi (2002). Their study, which compared classroom-based and online case-study discussions, revealed that many examples of discourse facilitation in face-to-face discussions did not happen in the virtual environment:

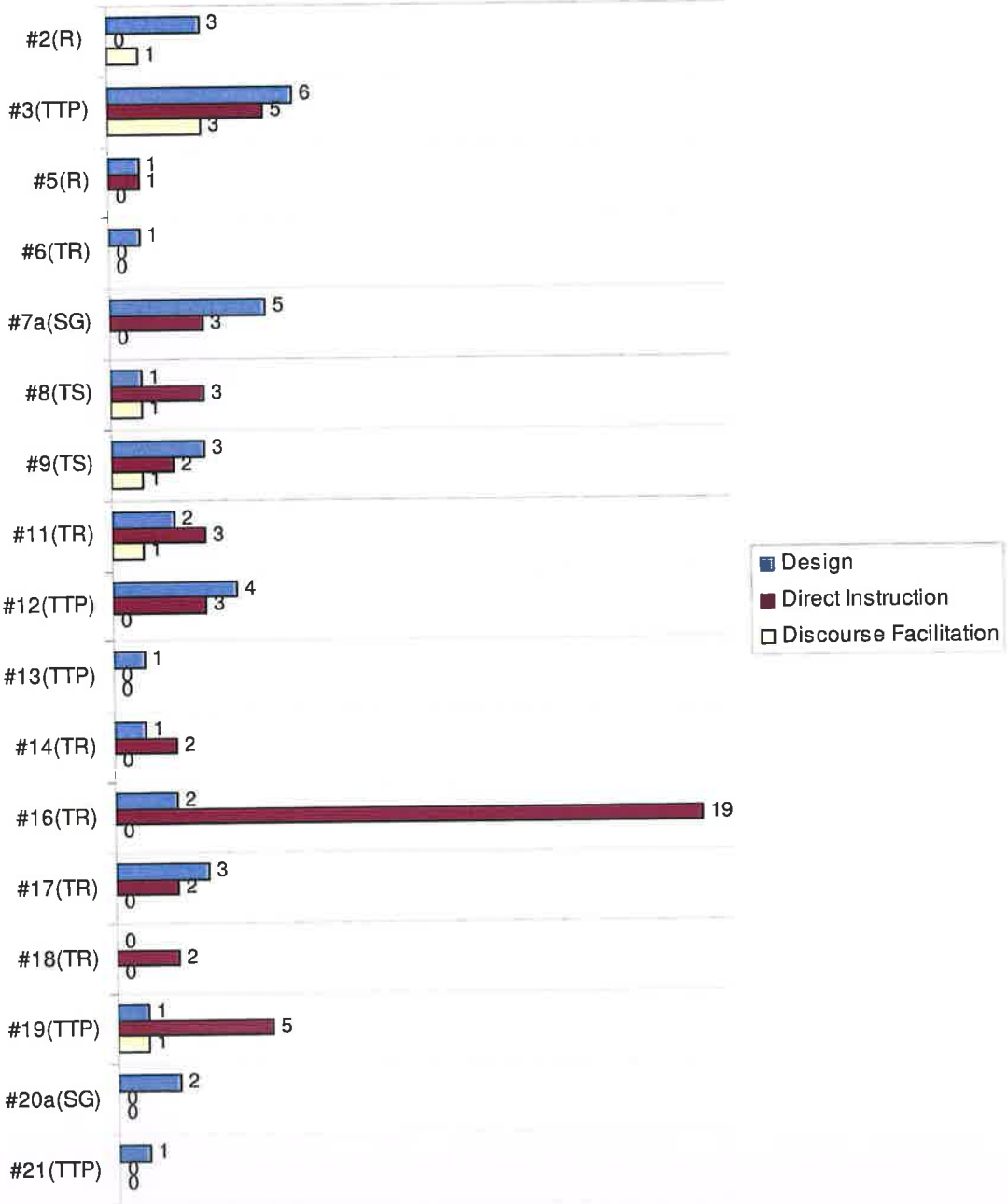
> Most of these instances took the form of *drawing in participants*, which typically took the form of calling on specific students, often as "cold calls," a

> phenomenon that did not occur at all in the online discussions. (Heckman and Annabi 2002: 5; italics in the original)

This outcome points to one of the weaknesses of the online medium when compared to face-to-face instruction – the difficulty of calling on specific participants with the aim of drawing them in and furthering the discussion. While the instructor may make postings to the group as a whole intended to stimulate debate, we will see in our analysis of the Parallel Texts task in Section 5.2.2 below that such postings may get lost in virtual space where no individual student feels obliged to make a response.

The following Figure shows the prevalence of each category of teaching presence in the 17 discussion-group conferences in module GE502. It shows, for example, the high levels of direct instruction recorded for Task # $16^{(TR)}$ (ESF Research Project) discussed in Chapter 4, Section 4.4.4 (page 109/110). More detailed discussion of this Figure will occur when we examine specific activities in Section 5.2 of the present chapter.

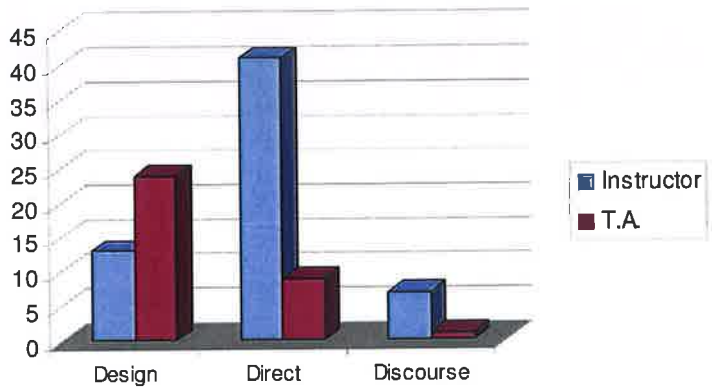
Figure 5.7 Teaching Presence Categories per Learning Task



Some final conclusions regarding teaching presence may be drawn by examining the division of labour between the main module instructor and the teaching assistant. Figure 5.8 below shows that the instructor dominated the 'direct instruction' category, while the

majority of postings in the 'design/organisation' category were posted by the teaching assistant. The instructor also contributed more postings in the 'discourse facilitation' category. Furthermore, the instructor's contributions tended to contain more than one indicator of teaching presence, while the teaching assistant's postings generally consisted of one indicator only. Thus, 61 instances of teaching presence were found in the instructor's 45 postings as opposed to 34 in the teaching assistant's 31.

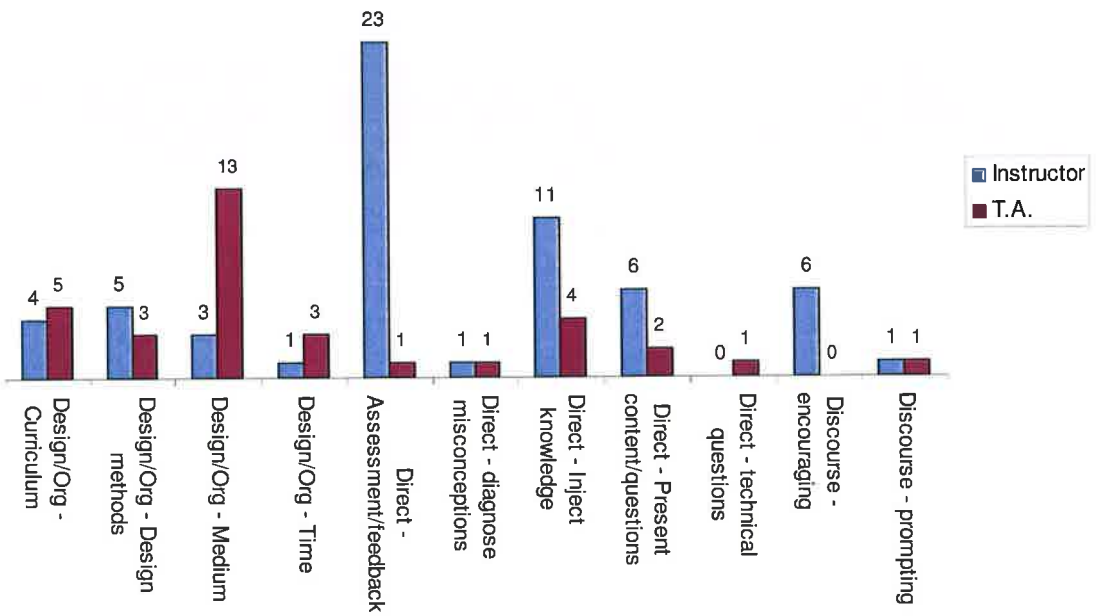
Figure 5.8 Overall Teaching Presence per Category and Contributor



The information contained in Figure 5.8 may be analysed further to show which indicators were dominated by the instructor and which by the teaching assistant. Figure 5.9 below shows that the type of direct instruction provided by the instructor consisted of the provision of feedback, the injection of knowledge and the presentation of content/questions. The teaching assistant's postings dealt largely with 'design/organisation' issues, relating in particular to utilising the medium. The instructor also dominated the 'discourse encouragement' indicator in which students' contributions were acknowledged and reinforced. A division of labour of this kind could be recommended for other providers of e-learning, where the teaching demands are frequently too heavy for one instructor to carry. As Paloff and Pratt point out, "instructors in the online arena will find that the time needed to deliver this type of class is two to three times greater than to deliver a face-to-face class" (1999: 49). This is particularly the case when an online course is delivered for the first time. This point is also made by

O'Hagan and Ashworth who suggest that online instruction could be "much more onerous than equivalent face-to-face instruction from the instructor's perspective" and who argue on this basis for "a lower student ratio per teacher" (2002: 113). Sharing the load with a teaching assistant and dividing tasks in the way described here is one possible solution to the problem of instructor overload.

Figure 5.9 Teaching Presence Categories per Contributor



5.1.3 Cognitive Presence in Module GE502

The most important dimension of the 'Community of Inquiry' Model is cognitive presence. Yet, of the three elements of the model, cognitive presence is also the most difficult to authenticate in a discussion transcript. This has to do with the distinction between manifest and latent content, as discussed in Chapter 3, Section 3.9 (page 71/72). The former resides on the surface and is easy to find – emoticons are one example, the 'reply' function in the conferencing software another. But with cognitive presence, the researcher must unearth evidence for latent processes of individual and group cognition in the external surface of a discussion transcript. While this does not pose too great a

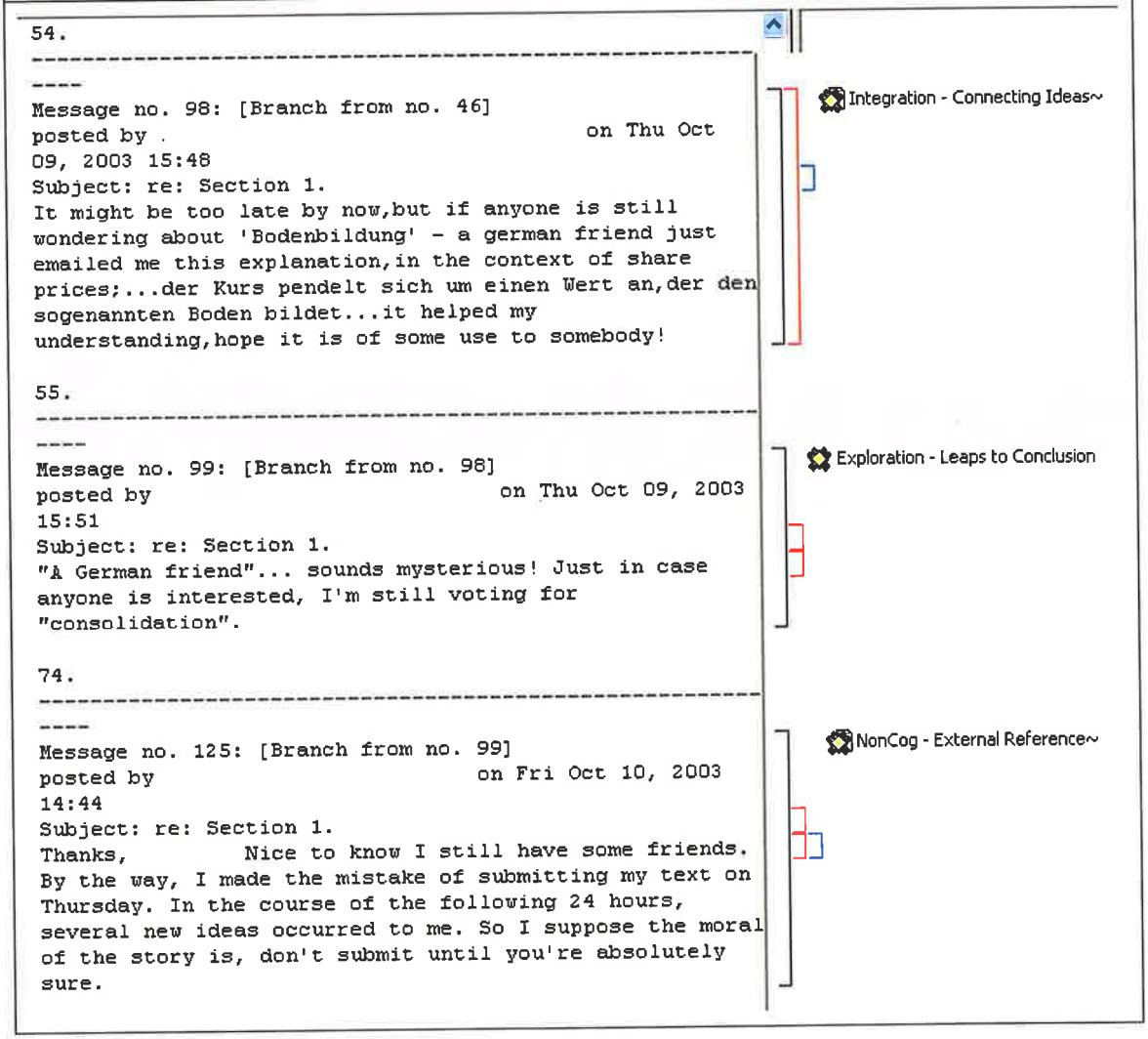
problem at the lower levels of cognition ('triggering') it becomes more difficult at the higher stages of 'integration' and 'resolution', as will become apparent below.

As discussed in Chapter 3, Section 3.10.1 (page 74/75), the classification scheme for cognitive presence developed by Garrison et al. is a four-stage, sequential model ranging from low to high levels of critical thinking (see Garrison et al. 2001: 17-20 and Garrison and Anderson 2003: 61). Phase 1, 'triggering', involves asking questions that take the discussion in a new direction ('puzzlement') or presenting background information that culminates in a question ('recognising problem'). Phase 2, 'exploration', involves brainstorming and information exchange, divergence within either a single message or within the online community, making suggestions for consideration and 'leaping to conclusions', i.e. offering unsupported opinions. Phase 3, 'integration', is a 'convergent' stage characterised by convergence within a group or within a message, integrating ideas and information from different sources, and creating solutions. Finally, Phase 4, 'resolution', involves vicarious application to the real world, and testing or defending solutions. (See also Table 3.1, page 75 and Appendix A for further details on the cognitive presence rubric.)

When the present researcher attempted to deploy the cognitive presence rubric, a number of difficulties became apparent. Firstly, the distinction between 'integration' and 'resolution' proved problematic. Only two postings matched the definition of 'resolution' as 'vicarious application to real world' or 'testing / defending solutions'. These related to a technical problem, and, according to the definition provided in the next paragraph, cannot be considered cognitive in nature. The absence of 'resolution' may have been due to the nature of the learning tasks which, in the case of discussion-group tasks, did not require solutions to be tested within the discussion forums. Rather, the solutions identified by students fed into learning products (translations, research reports, source-text analyses), which do not, for reasons outlined in Chapter 3, form the focus of investigation in this study. Hence, when the cognitive presence rubric was implemented in the present investigation, only the first three levels – 'triggering', 'exploration' and 'integration' – were used.

A second difficulty related to the absence of any kind of cognitive presence in a considerable number of conference messages. Many contributions dealt rather with 'non-cognitive' or organisational matters such as planning and managing the learning task, seeking and providing technical support, engaging in social communication and posting short messages of agreement (see McKlin et al. 2002 for a categorisation of 'non-cognitive' postings). Hence, in the present study, the researcher found it necessary to draw a distinction between 'cognitive' postings in which participants engaged directly with the learning material by questioning, brainstorming, and proposing solutions related to the learning task, and 'organisational' or 'non-cognitive' postings. This made it possible to calculate the extent to which discussions were on-task or off-task and coincidentally gave a reliable indication of the degree to which a true community of inquiry was being created. Figure 5.10 below gives an example from a discussion transcript of the codification of messages as either 'cognitive' or 'non-cognitive'.

Figure 5.10 Codification of Messages as either 'Cognitive' or 'Non-Cognitive'



In Figure 5.10 above, the first two messages were classified as 'cognitive'. Message no. 54 was classified as 'integration/connecting ideas': in it, the student integrates information from an outside source, provided by a native speaker of German (see Appendix A for a definition of 'integration/connecting ideas'). Message no. 55 was classified as 'exploration/information exchange': the student offers an opinion but does not support it with any kind of evidence. Finally, Message no. 74 was classified as 'non-cognitive' as it is off-task and does not engage directly with the learning material.

Following Garrison et al.'s (2001) recommendation, in the classification of cognitive presence, the entire message was used as the unit of analysis (see Chapter 3, Section 3.10.4). Where evidence of more than one phase of cognitive presence was found, Garrison et al.'s (2001: 9-10) recommendations were adopted that the researcher codes down (i.e. to an earlier phase) if it is unclear which phase is reflected, and codes up (i.e. to a later phase) if evidence of multiple phases is present (see Chapter 3, page 78). A further heuristic was introduced by the present researcher: where a posting appeared to fit into both 'cognitive' and 'non-cognitive' categories, it was classified as 'cognitive'.

In what follows, the results of two calculations are presented and discussed: the percentage of cognitive postings vs. 'non-cognitive' postings per learning task (Figure 5.11) and the percentage allocated to 'triggering', 'exploration' and 'integration' in postings categorised as 'cognitive' (Figure 5.12).

Figure 5.11 Cognitive/'Non-Cognitive' Postings per Learning Task

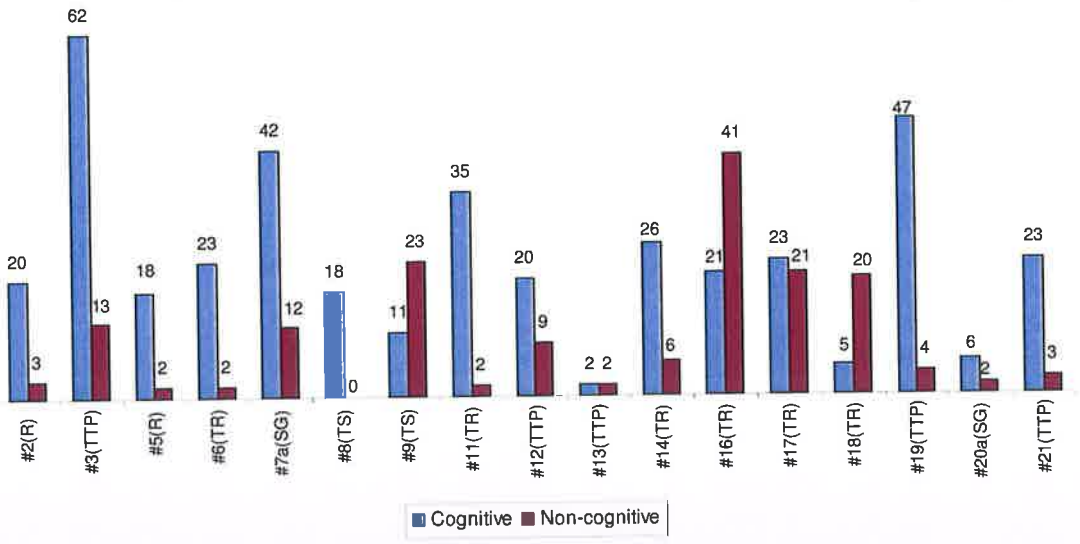


Figure 5.11 shows a clear predominance of cognitive messages in most activities. Exceptions are Task # $9^{(TS)}$ (Production of Bilingual Glossary), Task # $16^{(TR)}$ (Research Project), Task # $17^{(TR)}$ (Collocations Project) and Task # $18^{(TR)}$ (Summary Project). In these tasks, which were classified in Chapter 4 as 'translation-related' (see Section 4.3.4),

participants used the conference areas largely to upload files and post queries about the requirements of the learning task. Task # $16^{(TR)}$, as noted on page 110 above, was dominated by teacher postings acknowledging receipt of student assignments. Figure 5.11 shows furthermore that high levels of cognitive postings were recorded for tasks classified in Chapter 4 as 'target-text production' (Tasks # $3^{(TTP)}$, $19^{(TTP)}$ and $21^{(TTP)}$), in which students worked on an individual basis, but in parallel, on the same translation assignments, and for the public forum set up to support the pair translation (# $7a^{(SG)}$). This finding substantiates the results from Chapter 4 where target-text production tasks were found to demonstrate the highest interaction levels in the quantitative measurements used there and were perceived by students to be the most successful group-learning tasks.

When cognitive postings to the 17 discussion-group conferences from module GE502 were coded using Garrison et al.'s classification scheme, the results presented in Figure 5.12 below emerged. This Figure gives a global overview of the number of postings per cognitive presence category across all 17 discussion-group conferences.

Figure 5.12 Breakdown of Cognitive Presence Categories (No. of Messages and Percentage of Total)

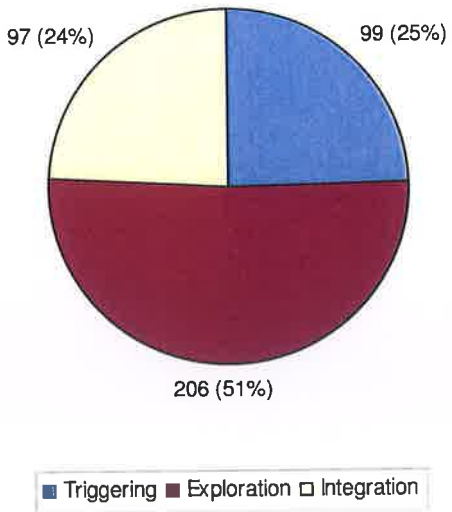
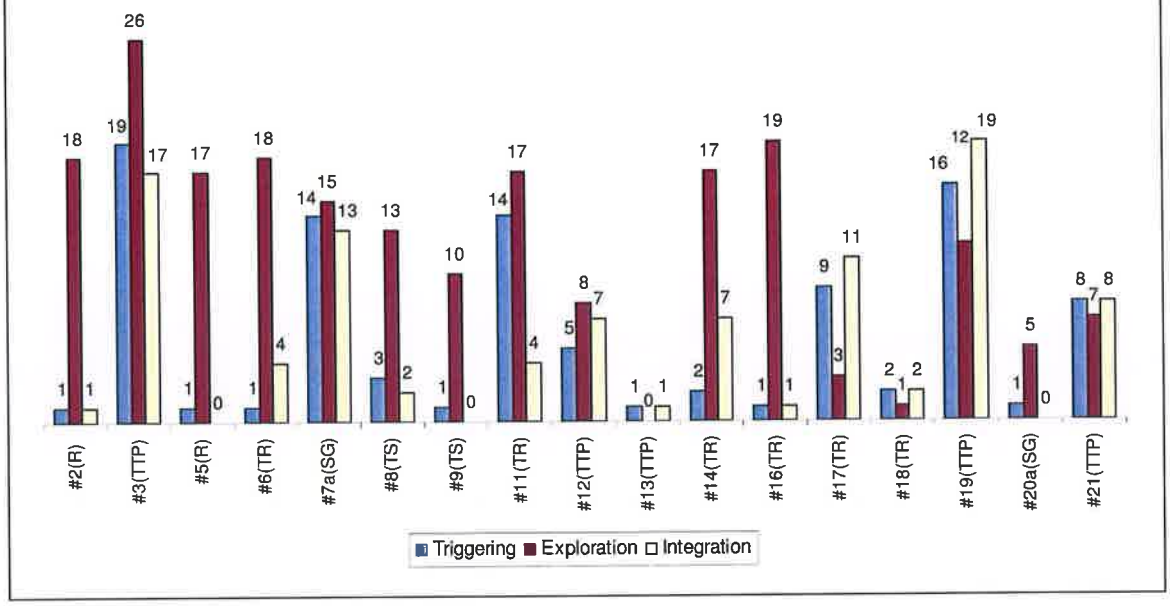


Figure 5.12 shows a clear predominance of 'exploration' postings at over 50%, with 'triggering' and 'integration' recording almost equal levels at roughly 25% each. The prevalence of exploratory-type postings replicates research findings elsewhere. For example, in their review of the literature, Kanuka and Garrison (2004) found that many instances of online learning do not progress beyond the sharing and comparing stage and that "online discussions typically result in a trivialized (e.g. sharing, comparing, and agreeing) group conversation" (ibid.: 3). However, at 24%, there is also a relatively high level of 'integration' postings in the present study, suggesting that higher levels of learning beyond the exchange of opinions occurred in module GE502.

Further information about cognitive presence may be derived by examining the incidence of the three phases in each of the 17 discussion-group conferences. The results of this analysis are presented in Figure 5.13. This shows high levels of 'integration' for the target-text production tasks (Tasks # $3^{(TTP)}$, # $12^{(TTP)}$, # $19^{(TTP)}$ and # $21^{(TTP)}$), for the public conference supporting the pair translation assignment (Task # $7a^{(SG)}$) and for Task # $17^{(TR)}$, the Collocations Project. A clear predominance of messages at the lower levels of 'triggering' and 'exploration' was found in the reflection tasks (Tasks # $2^{(R)}$ and $5^{(R)}$), in the translation subtasks (Tasks # $8^{(TS)}$ and $9^{(TS)}$) and in a number of the translation-related tasks (Task # $6^{(TR)}$, $14^{(TR)}$ and $16^{(TR)}$). Once again, this supports the results from Chapter 4, proving that target-text production tasks yielded the highest and reflection tasks the lowest levels of interaction in the whole-class discussion-group tasks.

Figure 5.13 Cognitive Presence Categories per Learning Task



5.1.4 Overview of Whole-Class Discussion-Group Tasks: Conclusions

Our content analysis of the 17 whole-class discussion-group tasks has shown that those tasks that were identified in Chapter 4 as displaying highest levels of interactivity and student satisfaction also scored highest in terms of the presences comprising the 'Community of Inquiry' Model. Target-text production tasks (Tasks # $3^{(TTP)}$, # $19^{(TTP)}$ and # $21^{(TTP)}$), along with the public conference supporting the pair translation assignment (Task # $7a^{(SG)}$), recorded higher than average social presence density, displayed more 'interactive' type indicators of social presence, and had the highest proportion of cognitive vs. 'non-cognitive' messages and highest levels of 'integration' in cognitive postings. Furthermore, reflection tasks and translation-related tasks, shown in Chapter 4 to have generated the lowest levels of participation, interaction and student satisfaction, were found here to be least successful in promoting an online community of inquiry.

5.2 *In-Depth Analysis of Selected Tasks Using the 'Community of Inquiry' Model*

In this section, we will use the 'Community of Inquiry' Model to analyse in further detail a selection of activities from module GE502. The aim here is to gain a better insight into specific tasks from module GE502 and to compare group-learning levels across different task types. In addition it will be shown how the 'Community of Inquiry' Model can be used to provide a detailed qualitative description of online activity. Once again, research outcomes will be substantiated by referring to findings from Chapter 4.

It will be recalled from the last chapter that four types of learning task were implemented using a whole-class discussion-group structure in module GE502: reflection tasks, translation subtasks, target-text production tasks and translation-related tasks. Four tasks, one from each type, were selected for closer examination in this section on the basis that within their particular task category they recorded the highest levels of three dimensions discussed in this and the last chapters: number of messages (see Figure 4.3, page 105), ratio of cognitive to 'non-cognitive' postings (Figure 5.11 above) and proportion of higher-level, i.e. 'integration' postings (Figure 5.13 above). Using these dimensions, Task # $2^{(R)}$ (Reflection on Participation Guidelines) was selected as an example of a reflection task, Task # $8^{(TS)}$ (Identification of Online Parallel Texts) as an example of a translation subtask, Task # $17^{(TR)}$ (ESF Collocations Project) as an example of a translation-related exercise, and Task # $19^{(TTP)}$ (Translation of Structural Funds Document) as an example of a target-text production task.

5.2.1 Task # $2^{(R)}$: Reflection on Participation Guidelines

Having been introduced to the online module, students were asked to comment on the Participation Guidelines. As noted in Chapter 4 (Section 4.2.2), it is important to discuss guidelines for participation with online students who are likely to be new to the medium and uncertain about what is required of them in a virtual learning environment.

The analysis of social presence in Task # $2^{(R)}$ (see Figure 5.3, page 132) showed equal percentages allocated to the three categories, 'interactive', 'affective' and 'cohesive' (three instances in each case). The three interactive instances were categorised as 'asking

questions'. In these, students directed questions to the module instructors regarding specific aspects of the Participation Guidelines (e.g. "Is there any standard of writing that applies to the messages we post, or can they be as they occur to us?"). Three examples of the 'affective' category were found, in which students used emotion (";-)") and humour ("when I have nothing important to say I prefer to keep my, er, mouth shut"). Finally, there were three instances of the 'cohesive' category: phatics ("Hello!"), addressing the group ("Hello guys!") and the use of vocatives (referring to participants by name).

The analysis thus far does not allow us to draw any conclusions as to whether the level of social presence identified in Task # $2^{(R)}$ was sufficient to support the creation of a community of inquiry. An examination of social presence density, i.e. the raw number of instances of social presence divided by the total number of words, shows, however, that social presence was lower at 4.45 for this exercise than for all other tasks in the online module (Figure 5.4, page 133.). Thus, asking students to comment on Participation Guidelines does not seem to have been particularly beneficial in the development of social presence.

With regard to teaching presence, Figure 5.5, page 135, shows that the instructors contributed 13% of the total number of postings for Task # $2^{(R)}$. This percentage is higher than the average of 9.8% across the other discussion-group conferences. Of the four instances of teaching presence found in Task # $2^{(R)}$, three were categorised as 'design' and one as 'facilitating discourse'. In the former, the instructors explained the purpose of the exercise, while in the posting categorised as 'facilitating discourse', they commented that they were "very impressed by the quality of all your postings, both in terms of style and content. So, just keep up the good work!" No examples of 'direct instruction' were found in this exercise. The relatively high level of teaching presence found here may be accounted for by the comparatively low overall number of postings for the task (23) and the fact that this was the first CMC exercise in the semester and hence required greater levels of tutor support.

As discussed in Section 5.1.3 of this chapter, cognitive presence was evaluated using two measurements: the ratio of cognitive to 'non-cognitive' postings and the proportion per 'cognitive' category in postings categorised as 'cognitive'. The first measurement showed a preponderance of cognitive postings at 20 out of 23 or 87% in Task # $2^{(R)}$ (see Figure 5.11, page 144). This compares favourably to other discussion-group conferences in the online module and shows that student interaction here was largely on-task. The second measurement demonstrates an overwhelming preponderance of 'exploratory' messages at 18 out of 20 or 90% of student postings (see Figure 5.12, page 145). Only one message was found in the 'integration' category, and this was a teacher posting in which instructors responded to student concerns. This suggests that students posted their responses to the Participation Guidelines as required, but did not connect ideas from outside sources or build on one another's contributions. This conclusion is supported by the Intermessage Reference Analysis from Chapter 4 where 0% intermessage references were found for Task # $2^{(R)}$ (see Figure 4.4, page 107).

On the basis of this analysis, Task # $2^{(R)}$ may be considered an example of a serial monologue with no evidence of students reading or responding to one another's messages. This may have been what one student was referring to in her criticism of repetition in the postings in which "`everyone [was] saying more or less the same thing`" (also cited pages 115 and 123 above). Nevertheless, Task # $2^{(R)}$ was a useful initiation into computer-mediated communication and is an example of what Garrison has in mind when he recommends "a brainstorming exercise, or non-threatening questions such as 'what do you think of' [as] appropriate in the early part of the course" (2006: 28).

5.2.2 Task # $8^{(TS)}$: Identification of Parallel Texts

18 messages were posted to the conference set up to support Task # $8^{(TS)}$. In this exercise, pairs of students working on a translation assignment were required to post the URLs of relevant parallel texts for sharing by all participants. Analysis of social presence for this task shows that of the instances found, 22.7% were assigned to the 'affective' category, 31.8% to the 'interactive' category and 45.5% to the 'cohesive' category (see Figure 5.3, page 132). Affective examples included expressions of emotion including emoticons e.g. "`:)`", "`harrrumph!!!`" and self-disclosure ("`'T was a long evening yesterday!`").

Interactive contributions were coded as 'continuing a thread' and 'asking questions', although it must be noted that of the five questions posed in the conference, four were posted by the module instructors. Finally, cohesive instances were categorised as 'addressing the group' and 'phatics' e.g. "Hi", "See you all tonight", "Good luck". With regard to social presence density, Figure 5.4, page 133, shows a measurement of 18.18, somewhat lower than the average of 25.12.

Five instances of teaching presence were found in Task # $8^{(TS)}$. Of these, one was coded as 'design', one as 'discourse facilitation' and three as 'direct instruction'. In the 'direct instruction' postings, the main module instructor posed questions in order to stimulate discussion and ensure that participants understood the purpose of studying parallel texts, e.g. "Are there particular collocations which are typical of these texts?"; "If the company has bad news to convey, in what way (and in which order) is this information presented?"; and "which nouns, adjectives, verbs convey a positive image of the company?" Yet, with one exception quoted below, these questions went unanswered, as did the teaching assistant's request that students select from the large number of websites they had found those that should as a matter of priority be included in the course site resources area.

How do we explain this lack of reaction to instructor questions and requests? One interpretation is that students find it easier to hide in an online setting than they would in a face-to-face classroom. As we saw in Section 5.1.2 above (page 137), the online environment makes it more difficult for instructors to summon individual participants to contribute, with the result that general calls to respond may go unheeded. This interpretation is also confirmed by Bennett who found in a study of online collaborative project teams that messages "posted on the discussion forum were more easily ignored because they lacked the immediacy of a face-to-face conversation" (2004: 14).

The measurement of cognitive vs. 'non-cognitive' postings in Figure 5.11 (page 144) shows that all messages in Task # $8^{(TS)}$ were classified as 'cognitive'. When we look at the breakdown of cognitive postings in Figure 5.13 (page 147), we find that, like Task # 2, the majority of messages (72%) were at the information-sharing or 'exploration' stage.

When we examine the content of the conference messages, we find that the majority of students posted the URLs of parallel texts, as required, but did not comment critically on what they had found beyond stating, for example: "I found these reports useful for terminology and phrases" or "here are just a couple of interesting texts that i found". Only two messages were coded as 'integration'. In the following example, classified as 'convergence within message' (i.e. 'justified, developed, defensible, yet tentative hypothesis' – see Appendix A), the instructor's question regarding the presentation of bad news in company reports was addressed in a way that integrated ideas into a meaningful structure:

> I noticed that negative sentiment very often is accompanied by clear explanation which implies no fault on the part of the company: 'continuing to be impacted by…' ' may be attributed to…'.
>
> Negatives in sentences are often mixed with positives or at least that positives are never far away. Favourable comparisons with competitors or harking back to better days are also used liberally to sweeten the pill somewhat...'Revenue declined in 2002 following an increase in 2001'.

The analysis of cognitive presence and, to a lesser extent, social presence, along with the measurements of intermessage references and message clusters from Chapter 4, where low levels of intermessage references (27.8%) and only 2 message clusters in the entire discussion-group conference for Task # $8^{(TS)}$ were found (see Figure 4.4, page 107 and Figure 4.5, page 108), suggest that a meaningful learning experience was not achieved in Task # $8^{(TS)}$. It is not clear from student postings that they had learned how to critically evaluate online resources or how to mine parallel texts for terminology and collocations. The failure may be said to lie with the task design. Rather than asking students merely to post URLs of parallel texts, it would have been better to encourage them to critically evaluate what they had found. Questions posed by the module instructor during the course of the discussion should have been included in the task description in the Course Content page in order to clarify what was expected from the outset.

5.2.3 Task # $17^{(TR)}$: Collocations Project

In week 8 of the semester, students were required to carry out a collocations project. A description of this task was provided in the Course Content Area as follows:

> As preparatory work for translation, read the German text [. . .] and identify the most important collocations used in it. Then study the Irish government's National Development Plan in order to establish corresponding collocations in English. (The NDP may be accessed at http://www.csfinfo.com/htm/overview/documents/national.pdf. You will find a link to this page from the Resources Area / Parallel Texts / European Social Fund). Use the search facility ('binoculars' icon) to search the pdf. document for English collocations. Post a list of at least 10 German/English collocations to the 'Terminology Research' thread by Thursday, November 20th at 5 p.m.

In total, 44 messages relating to the collocations project were posted. The breakdown for social presence was as follows: 13.95% affective, 47.7% interactive and 38.4% cohesive (see Figure 5.3, page 132 above). This shows a higher measurement for 'interaction' than in either of the two tasks considered above. The majority of these were classified as 'continuing a thread' (17 instances) and 'asking questions' (16 instances), with seven examples of 'expressing agreement' and one of 'direct reference' also found. In the 'asking questions' category, students mainly sought clarification of what the assignment required and what exactly the term 'collocation' meant (e.g. "Is it more about collocations between verbs and nouns or adjectives and nouns or both?"; "when a verb takes a certain preposition does that count as a collocation?"; "Are Long German Compounds Collocations in English?").

At 13.95%, there were relatively low levels of 'affective' social presence in comparison with other tasks. Instances included 'emotions' ("!!) Erm.."), 'self-disclosure' ("My TWIN brother is arriving to-day, so if anybody is interested you might find us in one of the really "touristy" pubs tonight!) and 'humour' ("yes, I ventured out of the web-bubble and asked her face-to-face!!"). Finally, cohesive examples included 'phatics', 'vocatives' and 'addressing the group'. The measurement of social presence density in Figure 5.4 (page 133) shows a higher than average measurement at 30.42 (compared with an average of 25.12 across the 17 discussion-group conferences).

Five instances of teaching presence were found in Task # $17^{(TR)}$. Three were classified as 'design – methods', i.e. providing instructions on how to participate in learning activities, and two were categorised as 'direct instruction'. The majority of teacher postings attempted to answer student queries regarding the requirements of the assignment and the

precise definition of the term 'collocation'. The following instructor posting betrays through the use of Capitals an edge of irritation at the evident confusion in the students' postings:

> The purpose of this exercise was to get you to note which words 'co-occur regularly' in the German text on labour market policy and to find possible equivalents in the National Development Plan - in order to MAKE YOUR LIVES EASIER when it comes to translating this text.

The analysis of cognitive presence in Task # 17(TR) shows firstly a high level of 'non-cognitive' messages – 21 out of 44 postings or 47.7% (see Figure 5.11, page 144). In these, completed assignments were uploaded as required in the task description. Of the 23 cognitive postings, 9 were classified as 'triggering', 3 as 'exploration' and 11 as 'integration'. This represents a higher percentage of 'integration' messages (47.8% of cognitive postings) than for most other activities. However, when we examine the content of the cognitive messages more closely, we find that while the discussions were on-task, they focused by and large on defining the term 'collocation' rather than on clarifying specific instances in the two parallel texts. Thus, of the 9 'triggering' events, only two sought assistance with equivalents of specific collocations ("I'm not so sure about the english expression of ‚allgemeine Qualifizierungs- und Beschäftigungsmassnahmen'" and "Erwerbspersonenpotenzial ?? Just looking for a bit of clarification here"). Similarly, of the 11 'integration' postings, only two were on-task in the sense intended by the module instructors; one addressed the term "allgemeine Qualifizierungs- und Beschäftigungsmassnahmen" ("I've found '(active) employment measures' and '(preventive) education measures' in the NDP document. Unfortunately the two don't crop up together though and there's no sign of anything like "allgemeine" being used with them...") and one provided a solution to the expression "Erwerbspersonenpotenzial" ("when i looked it up i found labour force potential but I agree with you in that it just means the number of potential people available to work"). In all other cases, 'integration' messages focussed on defining the term 'collocation' and discussing whether or not German compound nouns could be considered collocations.

Having submitted her assignment, one student remarked: "I got very confused doing this exercise". Doubtless, this statement expressed a general feeling in the class, and as a result, the discussions veered off-task into a more abstract debate about definitions. What this example demonstrates is the difficulty of both predicting and, once they have arisen, clarifying misunderstandings in the online environment. While the instructors made every effort to provide clear instructions, they were unable to foresee the level of confusion that arose over the term 'collocation'. In the event, the issue was discussed again at the final face-to-face meeting of the semester, thereby demonstrating the importance of scheduling a final classroom-based session in order to clear up any misunderstandings from the online environment.

5.2.4 Task # $19^{(TTP)}$: Target-Text Production

Task # $19^{(TTP)}$ was the third-last online task of the semester. In common with Tasks # $3^{(TTP)}$, $12^{(TTP)}$, $13^{(TTP)}$ and $21^{(TTP)}$, students were required to produce a translation on an individual basis by a specific deadline. While completing the task, they were encouraged to use the discussion forum to seek and provide support to one another.

In total, 51 postings relating to Task # $19^{(TTP)}$ were made. The analysis of social presence in this task (see Figure 5.3, page 132) shows an overwhelming predominance of contributions in the 'interactive' category at 60.44%. 'Affective' and 'cohesive' categories measured in at roughly equal levels of 18.68% and 20.88% respectively. The vast majority of interactive instances were categorised as 'asking questions' and 'continuing a thread'. Of the former, 19 examples were found. Participants posted queries relating to source-text terminology, e.g. "KMU", "Arbeit statt Sozialhilfe", "BESCHÄFTIGUNG BA", "Massnahmen", "Humankapital" or securing appropriate target-language equivalents, e.g. "can anyone please [give] me a good translation of this phrase 'aus zeitlich befrister Beschäftigung und Qualifizierung'". There were 34 instances of 'continuing a thread' and 2 of 'expressing agreement'. These strong interactive measurements suggest lively and engaged dialogue and negotiation, a conclusion that was borne out by the analysis of interactive references and message clusters in Chapter 4. There we found 98% intermessage references for Task # $19^{(TTP)}$ (see Figure 4.4, page 107) and a higher than average number and size of message clusters

(see Figure 4.5, page 108 and Table 4.8, page 109). At 30.49, social presence density was also higher for this task than the average of 25.12 across the 17 whole-class discussion-group conferences (see Figure 5.4, page 133).

7 instances of teaching presence were found in Task # $19^{(TTP)}$ (see Figure 5.7, page 138). One was classified as 'design/organisation'; in this a student query relating to the allocation of percentage grades for translation assignments was addressed. One was categorised as 'facilitating discourse': "`Student X's suggestion seems to make sense. Any other ideas?`" Finally, five contributions fell into the 'direct instruction' category. In one of these, group feedback at the end of the translation task was provided; in two, misconceptions were diagnosed, and in the final two, knowledge was injected.

As with the other tasks discussed in this chapter, cognitive presence was first measured by calculating the proportion of 'non-cognitive' or 'organisational' postings per task. In this instance, only 4 out of 51 postings were classified as 'non-cognitive' (see Figure 5.11, page 144). At 7.84%, this is one of the lowest measurements of 'non-cognitive' postings across the 17 discussion-group conferences. This suggests that discussions were focussed almost exclusively on the learning task itself rather than on issues of task management or other external matters.

If we examine the breakdown of cognitive presence presented in Figure 5.13 on page 147, we find a higher percentage of 'integration' messages in Task # $19^{(TTP)}$ than in any other discussion-group conference (19 out of 47 or 40.4% of cognitive postings compared to a total of 25% across all conferences – see Figure 5.12, page 145). In addition, 16 messages (or 34%) were classified as 'triggering' and 12 (or 25.5%) as 'exploration'.

The categorisation of cognitive postings may be illustrated by examining the largest cluster from the Task # $19^{(TTP)}$ conference. This comprised seven messages and began with the following 'triggering' event:

> `I've been searching the Web, trying to find the most frequently used terms which correspond to "alte Bundesländer" and "neue Bundesländer". The most popular seem to be "old Federal States" and "new Federal States". While these seem fine to me, it does strike me that repeating such phrases over and over (as in`

> Section 1 of the text) could result in excessive wordiness. Has anybody come across any shorter/different options? Thanks :o)

This was followed by a posting classified as 'exploration'. It matched Garrison et al.'s (2001) definition of 'brainstorming' as adding to established points while not attempting to systematically defend, justify or develop the addition (see Appendix A at the end of the study): "In some cases you can say East Germany and West Germany". There then followed 5 messages categorised as 'integration' which built on others' ideas, offered justified and developed hypotheses, and integrated information from various sources. The following is an example of one such posting:

> I just read a few articles on Germany at Economist.com and came across "eastern and western states", "the new states" or simply "east" and "west". I also came across the expression "the former communist-run German Democratic Republic"(endlang ;o)) - well, this one will not be of much use for our translation, but it's interesting to see. Also, when referred to people, "easterners and westerners" is very frequent.

It may be said that the analysis of Task # $19^{(TTP)}$ in this and the last chapter produced positive results: a very high proportion of interactive postings (60.44%); almost 100% intermessage references; higher than average levels of social presence density (30.49); a greater than average number and size of message clusters; very low measurements of 'non-cognitive' postings (7.84%); and one of the highest levels of 'integration' postings across the 17 whole-class discussion-group conferences (40.4% of cognitive postings). Thus, by all the measurements used in this study, Task # $19^{(TTP)}$ emerges as the most successful example of an online community of inquiry examined in this chapter.

A key question here is whether the high levels recorded for Task # $19^{(TTP)}$ resulted from the task type, i.e. target-text production, or from other factors, e.g. timing in the semester. If we examine the data from this and the last chapter for examples of target-text production tasks (Tasks # $3^{(TTP)}$, $12^{(TTP)}$, $19^{(TTP)}$ and $21^{(TTP)}$), we find consistently high measurements for these activities. In Chapter 4, it was shown that apart from the pair and group tasks, the highest levels of participation and interaction in module GE502 were recorded for Tasks # $3^{(TTP)}$, # $19^{(TTP)}$ and # $21^{(TTP)}$ (see Figure 4.3, page 105, Figure 4.4, page 107, Figure 4.5, page 108 and Table 4.8, page 109). In the present chapter, social presence density, the percentage of interactive postings, the proportion of cognitive

messages and the levels of 'integration' postings all measured considerably higher for target-text production tasks than for other task types. Thus, we may conclude that the target-text production task where students are working on an individual basis but in parallel on the same translation assignment, is the most effective of the whole-class discussion-group tasks examined in this chapter for supporting group learning in an online community of inquiry.

The production of a target text may be seen as the core activity in any translation exercise classroom. It is through undertaking tasks of this kind that students acquire 'translation competence', defined by Kiraly as the "specific skills that allow one to produce an acceptable target text in one language on the basis of a text written in another" (2000: 13; cited in Chapter 2, Section 2.2.3, page 22). Text-based asynchronous communication is particularly suited to facilitating this activity type by enabling the sharing of multiple perspectives among large groups of students working simultaneously on the same tasks. To paraphrase Pym's definition of translation competence cited on page 23 of the present study, communicating via asynchronous text-based computer conferencing supports the process of generating "a series of more than one viable target text (TT_1, TT_2 ... TT_n) for a pertinent source text (ST)", and the selection of "only one viable TT from this series, quickly and with justified confidence" (Pym 2002: 8).

5.3 Chapter 5: Concluding Remarks

This chapter has demonstrated how the 'Community of Inquiry' Model may be used to provide an overview of online activity in text-based computer conference transcripts. It enables the researcher to compare levels of social, teaching and cognitive presence across different conferences and to identify those activities which score highest and lowest in terms of the three presences which comprise the model. The second half of the chapter also demonstrated that the model may be used to provide an in-depth description of online activity in specific conferences chosen for deeper analysis.

The usefulness of the model has been further demonstrated by showing how results can be successfully triangulated with other measurements of online activity. We found in this chapter that the same tasks which scored highest and lowest in terms of participation and

interaction levels and student perceptions in Chapter 4 also stood out when investigated using the 'Community of Inquiry' Model. As in Chapter 4, tasks involving the production of a target text were found to be most successful in terms of promoting an online community of inquiry. Least successful were reflection tasks and translation-related tasks.

Certain weaknesses of the 'Community of Inquiry' Model became apparent in this chapter. We found it necessary to introduce an additional category – 'non-cognitive' or 'organisational' – in order to identify postings which do not display any evidence of cognitive presence. With regard to the cognitive dimension, we found that only the first three levels – 'triggering', 'exploration' and 'integration' – were relevant to the conference discussions analysed here and that evidence of the highest level – 'resolution' – was not apparent in the transcripts under review. We also found that levels of social and teaching presence do not, on their own, indicate whether tasks are successful in promoting a community of inquiry and that it is difficult to prescribe desirable levels of either social or teaching presence. However, taken together with cognitive presence they do enable us to provide a detailed description of online activity and to compare levels across different conferences.

With regard to social presence, it was found in this chapter that while the originators of the 'Community of Inquiry' Model do not prioritise any of the 18 indicators or three categories of social presence, indicators belonging to the 'interactive' category may be considered the best gauge of the existence of a community of *inquiry*, i.e. one that supports group learning via asynchronous text-based communication. Finally, analysis of teaching presence demonstrated that a division of labour occurred between the main module instructor and the teaching assistant. The latter's postings were dominated by 'design/organisation' issues while the main module instructor dominated the 'discourse facilitation' and 'direct instruction' categories.

The analysis of discussion transcripts using the cognitive presence rubric has shown that at 25%, levels of 'integration' (the highest level of cognitive presence) may be considered high across the 17 discussion conferences in comparison to other studies which found a

preponderance of information exchange in online discussions. It will also emerge later in the study that levels of 'integration' were higher in the whole-class discussion-group tasks than in the small-group tasks which will be analysed in the next two chapters.

Some disadvantages of online instruction became apparent in this chapter, particularly in the in-depth analysis of specific conferences conducted in Section 5.2. We found that misunderstandings are difficult to predict and to rectify in the online environment. It was also found that it is easier for students to hide and not to respond to instructor postings in a virtual classroom. The heavy time investment required of the online instructor was also noted. The use of two instructors and a division of labour of the kind that occurred in module GE502 was recommended, particularly when a Web-based course is being delivered for the first time.

6 Small-Group Translation Tasks

In this chapter, small-group translation tasks from the two implementations of module GE502 will be investigated. In total, three such exercises were carried out over the two module iterations. In addition to group size, a defining feature of these three tasks, distinguishing them from the whole-class discussion-group tasks examined in Chapter 5, was the creation of a joint learning product – in this instance a target text – by each of the small groups.

In 2003/4, a pair translation task was implemented early in the semester (Weeks 3 and 4) as an introduction to online group work. When module GE502 was redelivered in academic year 2004/5, two small-group translation tasks were implemented. The first was a pair translation task conducted early in the semester (Weeks 3 and 4). This was identical in format to that undertaken during the first delivery, and the intention was to test whether the results discussed in Section 6.1 below would be replicated when the same activity was implemented with a different cohort of students. The second was a group translation assignment carried out in the second half of the semester (Week 9). In this, an overtly cooperative or 'jigsaw' approach was adopted. It was hoped through the imposition of task specialisation to replicate authentic workplace practices, to improve the process of creating a joint product using asynchronous communication and to further investigate the effects of a cooperative-group structure on the level and quality of online interaction.

Three techniques discussed in the last two chapters are used in the present chapter to examine the group-learning experience during small-group translation tasks: numerical measurements of participation and interaction levels; content analysis of computer transcripts of online discussions; and qualitative evaluation of student perceptions. The results of these analyses will allow us to describe and compare levels of group learning across the three small-group translation tasks, and to draw comparisons between these and the whole-class discussion-group tasks reviewed in Chapter 5. In this way, we aim to shed more light on the impact of task structure on the quality of the group-learning experience in the online translation exercise module. Moreover, the chapter will enable us to draw additional conclusions about the 'Community of Inquiry' Model, as well as

providing further insights into the benefits and drawbacks of Web-based translator training.

6.1 Task # 7(SG): Pair Translation Task 2003/4

Task # 7(SG) was implemented during weeks 3 and 4 of the first module implementation, and involved the translation from German into English of an annual report. For the purpose of this exercise, students were grouped into pairs or dyads. Harasim recommends using learning dyads as an icebreaker in the early stages of a virtual course: "the teacher assigns each student to a student partner [. . .], providing a peer in what is otherwise a new environment" (1996: 129). Dyads are particularly valuable as an introduction to online teamwork, since working in pairs is logistically less complex than interacting in larger groups.

In Task # 7(SG), a certain amount of structure was imposed by the module instructors. Subtasks, to include the creation of a glossary, search for parallel texts, subject-area research, formulation of English-language text and proofreading, were identified by the instructors in advance, as were clear deadlines for each subtask. However, subtasks were not allocated by the instructors to individual students. In this way, it was left to the learning groups to decide whether to work together on all aspects of the assignment (collaborative-group structure) or whether to proceed individually on subdivisions of the learning task for eventual collation into a single product (cooperative-group structure). The final requirement, having submitted the assignment, was to reflect on the experience of working in pairs and to email comments to the module instructors.

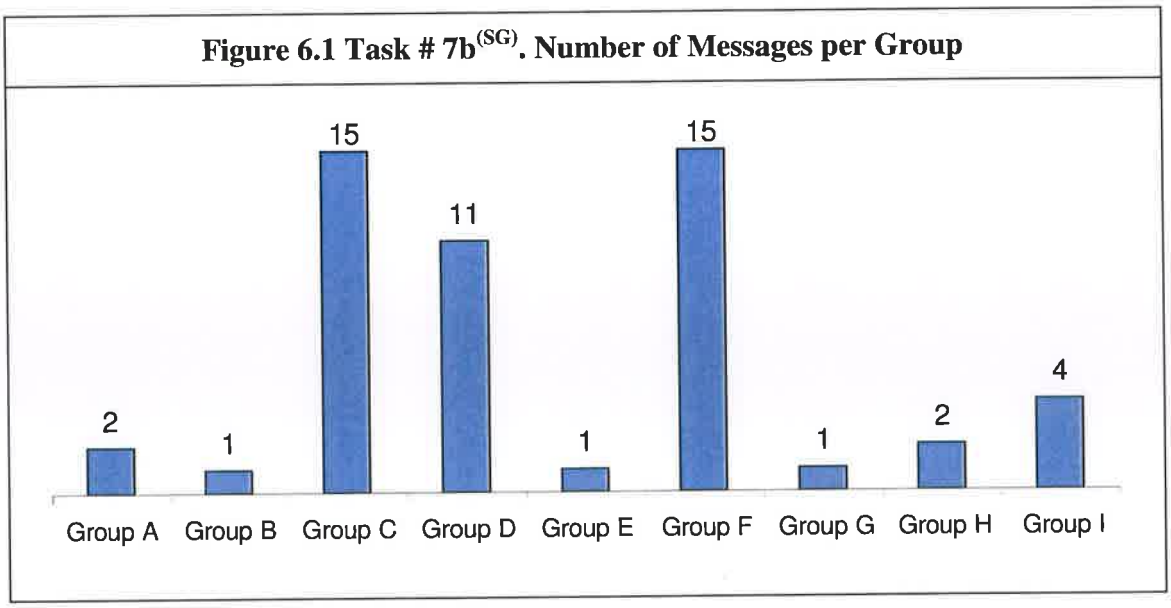
In the event, due to late registration at the University, 7 groups of 2 students and 2 groups of 3 students were set up for the task. Each dyad or group was provided with a private discussion forum in which to interact with one another. It was made clear from the outset that the teaching assistant, but not the main module instructor, would have access to the private conferences. This was a deliberate design decision, taken with the aim of affording learners maximum independence to undertake the assignment without teacher 'interference'. In addition, students and instructors had access to a public forum (# 7a(SG))

in which groups were required to pool the results of their terminological research and to make postings relevant to the entire class.

6.1.1 Task # 7b$^{(SG)}$. Participation Levels per Group

In total, 52 messages were posted to the groups' private conferences and these (referred to henceforth as # 7b$^{(SG)}$) form the focus of the investigation here. Counting the number of messages per group was the first method of analysis employed to examine the small-group conferences. The results of this analysis are displayed in Figure 6.1 below. The first conclusion to be drawn from this Figure is that the private conferences were used to greatly differing degrees, indicating quite disparate quantities of online activity by the various groups. Three groups – B, E and G – made only one posting each to the online forum assigned to them. Groups A and H made 2 postings each and Group I made 4. Highest concentrations were reached by Group D with 11 postings and Groups C and F with 15 postings each. These diverse participation levels cannot be explained by group size, as contrary to what one might expect, groups with three members (G and I) did not make the largest number of postings. In the conferences with very low levels of activity, the question arises whether groups failed to act as a team at all, or whether interaction did, in fact, occur but not via the Discussion Area. We will return to this question further below.

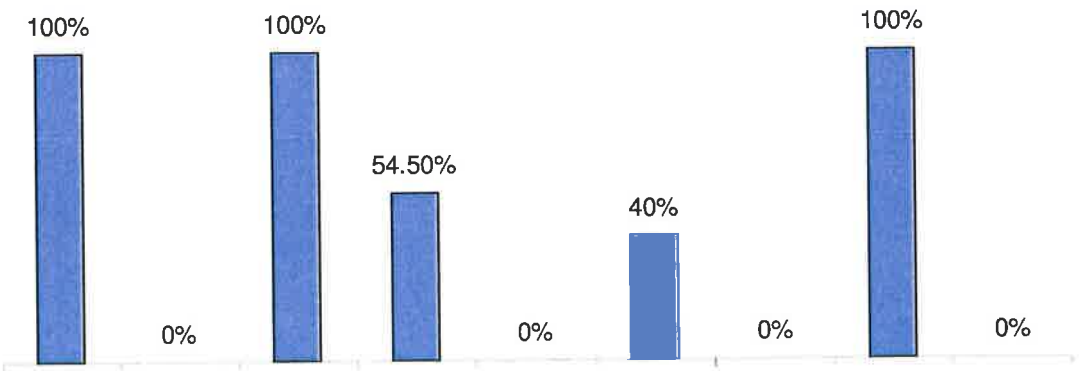
Figure 6.1 Task # 7b$^{(SG)}$. Number of Messages per Group



6.1.2 Task # 7b$^{(SG)}$. Interaction Levels per Group: Intermessage Reference Analysis

In Chapter 3 (Section 3.8), we discussed the use of Intermessage Reference Analysis as a first step in establishing levels of interaction between conference participants. For Task # 7b$^{(SG)}$, transcripts of online discussions were analysed to establish how many messages contained references to or were referenced by other messages, and how many remained unreferenced or 'independent'. Figure 6.2 below shows levels of intermessage references as a percentage of overall message numbers for each of the 9 small-group conferences.

Figure 6.2 Task # 7b$^{(SG)}$. Percentage of Intermessage References per Group



If we examine the groups which recorded the highest levels of participation in Figure 6.1 above and consider these in the context of Figure 6.2, we find that Group C recorded 100% intermessage references (i.e. all messages either referenced or were referenced by other messages), Group D recorded 54.5% and Group F 40%. Four groups – B, E, G and I – logged no intermessage references. Groups A and H, while recording 100% intermessage references, only posted 2 messages in total, a figure that is too low to allow for meaningful analysis. Considering the small number of postings in some of the conferences, we may conclude that, with the possible exception of Group C, levels of interaction were relatively low for the pair translation task, particularly if we compare these findings with those measured across all whole-class discussion-group tasks in

Chapter 4 where a majority of conferences recorded levels of intermessage references of at least 50% (see Figure 4.4, page 107).

Measuring the number and size of message clusters per conference is a further gauge of interaction discussed in Chapters 3 and 4. As noted there, a message cluster is a group of two or more intermessage references, and it may be assumed that the bigger the message cluster, the higher the level of interactivity. When Groups C, D and F were examined to establish the number and size of such clusters, the results displayed in Figures 6.3 and 6.4 below emerged.

Figure 6.3 Task # 7b$^{(SG)}$. Number of Message Clusters

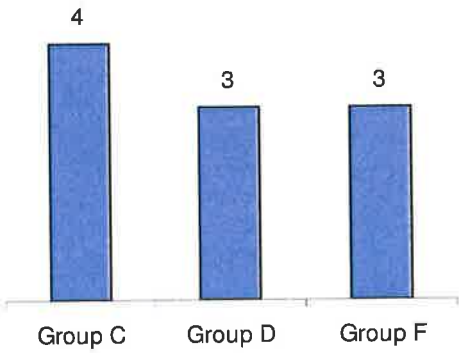
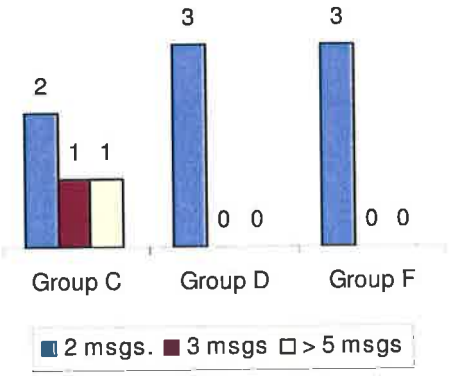


Figure 6.4 Task # 7b$^{(SG)}$. Message Cluster Size



What these Figures show is that Group C had the greatest number of message clusters and also the largest cluster size, with 2 clusters of 2 messages, 1 of 3 and 1 of more than five. Once again, Group C emerges as the group with the highest level of interaction on the basis of message cluster number and size. Figure 6.4 above also shows that with its preponderance of 2 message clusters, Task # 7b$^{(SG)}$ cannot be considered to display high levels of interactivity when compared to whole-class discussion-group tasks where much larger numbers and sizes of clusters were found (see Figure 4.5, page 108 and Table 4.8, page 109).

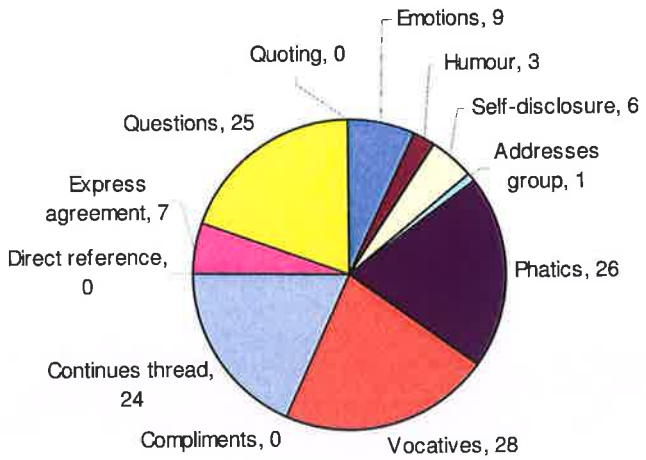
It will become apparent in Section 6.1.6 below that all of the small groups in Task # 7b$^{(SG)}$ adopted the same group structure. This was a two-stage approach consisting of a

cooperative phase in which group members undertook subtasks on an individual basis, followed by a collaborative stage in which groups pooled their results and compiled the final translation in a joint effort involving all group members. Thus, while the numerical analysis techniques employed thus far in this chapter have uncovered differences in terms of participation and interaction between the small groups involved in Task # $7b^{(SG)}$, such differences cannot be accounted for in terms of group structure. As a result, in the content analysis which follows, we do not distinguish between the small groups involved in Task # $7b^{(SG)}$. Instead, the 52 messages posted to the small-group conferences are treated as a totality, and comparisons are drawn not between the nine small groups involved in the task but between these and the overall results for whole-class discussion-group tasks found in the last chapter.

6.1.3 Task # $7b^{(SG)}$. Social Presence

We saw in previous chapters that social presence may be measured by counting the number of examples in the discussion transcripts and grouping these under 18 indicators (see Table 3.2, page 76 and Appendix B at the end of the study). The results of this calculation across all 9 small-group conferences in Task # $7b^{(SG)}$ are presented in Figure 6.5 below. This shows that across 129 instances, highest levels were recorded for 'vocatives' i.e. addressing or referring to other course participants by name, 'phatics' (communication serving a purely social function) and 'asking questions' of other students/instructors. If we compare this to the results measured for the whole-class discussion groups in Chapter 5 and presented in Figure 5.1 on page 129 we find that 'continuing a thread', 'vocatives' and 'asking questions' were the most frequently recorded indicators of social presence there. Thus, the results do not differ greatly on this dimension between Task # $7b^{(SG)}$ and the whole-class group discussion tasks, particularly when we consider that 'continuing a thread' is the fourth most prominent indicator in the Figure below.

Figure 6.5 Task #7b$^{(SG)}$, Social Presence per Indicator



Grouped into categories, the 'affective' category accounts for 18 out of 129 indicators (or 14%), the 'cohesive' category for 55 out of 129 (or 42%) and the 'interactive' category for 56 out of 129 (or 43.5%). At 43.5%, the 'interactive' measurement is roughly similar to that registered across the whole-class discussion-group conferences where an overall figure of 46% was recorded (see Figure 5.2, page 130). However, it is less than for the target-text production tasks where measurements of 55.8%, 60.4% and 51.9% were found for Tasks # 3$^{(TTP)}$, # 19$^{(TTP)}$ and # 21$^{(TTP)}$ respectively (see Figure 5.3, page 132). It will be recalled that in Chapter 5 (page 130/131) the researcher put forward the hypothesis that of the three social presence categories, 'interaction' is most indicative of a functioning community of inquiry. Thus, on the basis of this measurement, we may conclude that Task # 7b$^{(SG)}$ was less successful in terms of group learning than the target-text production tasks implemented using a whole-class discussion-group structure and discussed in Chapter 5.

A final measurement of social presence considered in Chapter 3 and Chapter 5 is 'social presence density' where the raw number of instances of social presence (in this case, 129) is divided by the total number of words (3559) and the result (0.0362) multiplied by

1,000. This yields a figure of 36.24 across the nine private conferences in Task # 7b$^{(SG)}$. On the basis of this figure, we may say that social presence density for Task # 7b$^{(SG)}$ was higher than the average of 25.12 across all 17 whole-class discussion-group conferences but not noticeably different from the target-text production tasks where measurements of 26.61 (Task # 3$^{(TTP)}$), 30.49 (Task # 19$^{(TTP)}$) and 41.02 (Task # 21$^{(TTP)}$) were found (see Figure 5.4, page 133).

6.1.4 Task # 7b$^{(SG)}$. Teaching Presence

Of the total 52 messages, only 2 (3.8%) were posted by the teaching assistant. These were classified as 'design' using Anderson et al.'s (2001) teaching presence rubric: one encouraged use of the conference area for the assignment; the other provided guidance on how students should go about organising completion of the assignment between them. We may conclude from this figure that teaching presence was very low for Task # 7b$^{(SG)}$. However, it will also be recalled that a deliberate decision was taken not to include the main module instructor in the private conferences in order to grant the groups maximum autonomy.

6.1.5 Task # 7b$^{(SG)}$. Cognitive Postings

Content analysis of cognitive presence in the 52 postings began by labelling each message as either 'cognitive' or 'non-cognitive'. As noted in Chapter 5, 'cognitive' messages are those in which students engage directly with the learning material by posting questions, brainstorming, and proposing and defending solutions related to learning issues. In 'non-cognitive' or 'organisational' postings, on the other hand, learners plan and manage the learning task, seek and provide technical support, engage in social communication and post short messages of agreement. When messages to the small-group conferences were categorised on the basis of this distinction, only 1 was classified as 'cognitive'. This outcome (98% 'non-cognitive' postings) suggests that Task # 7b$^{(SG)}$ did not lead to the creation of a properly functioning online community of inquiry characterised by higher-order learning amongst participants. At 2% cognitive postings, this is also the most important difference to emerge thus far between the pair translation task and the whole-class discussion-group tasks analysed in Chapter 5 where

Figure 5.11 (page 144) showed a clear predominance of cognitive messages in most activities, particularly in the target-text production tasks. There we found ratios of cognitive to 'non-cognitive' postings of 62:13 (Task # $3^{(TTP)}$), 47:4 (Task $19^{(TTP)}$) and 23:3 ($21^{(TTP)}$), equating to 82.6%, 92.1% and 88.5% cognitive postings respectively (see Figure 5.11, page 144).

The single cognitive message in Task # $7b^{(SG)}$ was a 'triggering' event from Group G's private forum. This posting is worth quoting in full as it sheds some light on the underlying causes of low participation levels in the group conferences:

> hi lads im not sure if it's just the 2 of you who will get this..or everyone..anyway...just 2 things..number 1, are we meeting tomorrow? before the translation seminar maybe? let me know and number 2..im having problems with 'aus der schmiede' in my part of the text...any thoughts? talk soon

The above message performs both a cognitive and a 'non-cognitive' function (although on the basis of the heuristic presented in Chapter 5 (page 144), it was classified as 'cognitive' only): in it the student suggests a face-to-face meeting, before posing a terminological question. We can assume from the absence of subsequent messages that the group did, in fact, meet in person and that all further group interaction took place offline (see further the discussion of 'non-cognitive' postings below).

6.1.6 Task # $7b^{(SG)}$. 'Non-Cognitive' Postings

The 51 'non-cognitive' messages were classified as belonging to one of four categories: 'file sharing', 'deadlines', 'roles' and 'offline meetings'. (A small number performed more than one 'organisational' function, leading to 58 instances in Table 6.1 below.) The four categories and associated indicators in Table 6.1 below emerged during the content analysis of transcripts from the small-group conferences. A breakdown of 'non-cognitive' categories and associated indicators across the 9 conferences is given in this table. There then follows an in-depth analysis of the four 'non-cognitive' categories.

Table 6.1 Task # 7b(SG). 'Non-Cognitive' Postings to Small-Group Conferences		
Category	*Indicator*	*No. of instances*
File sharing	File upload Request for file upload Acknowledgement of file upload	22 2 4
Deadlines	Timeline for subtasks	4
Roles	Task division Clarification of roles	12 4
Offline Meeting	Arranging / referring to offline meeting	9
Other		1
TOTAL		58

File Sharing / Deadlines

48% of 'non-cognitive' postings belonged to the 'file sharing' category. Thus, the small groups used their discussion spaces principally to post glossaries, parallel texts and translations to one another. In the case of one group – Group I – all four postings to the group's conference area were classified as 'file sharing'.

Only four messages related to the discussion of deadlines. A clear timeframe had been provided by the module instructors for the completion of subtasks and, by and large, this required no further clarification within the small-group conferences.

Discussion of Roles

The second most prominent 'non-cognitive' category was 'discussion of roles' (27.6%). As stated above, subtasks were listed in advance by the module instructors, but were not assigned to individual students. Thus, groups were free to decide whether to adopt a collaborative structure and work together on all aspects of the assignment or a cooperative structure involving the allocation of subtasks to individual group members. Transcripts from the private discussion forums provide some insight into how groups went about this. While it is not clear from their conference areas how Groups E and G allocated tasks, all other groups (A, B, C, D, F and H) appear to have initially adopted a cooperative structure, dividing the source text in half, with each student assuming responsibility for compiling a glossary and writing a target text for one half. (Group I

with three members divided the source text into three parts). This was followed by a collaborative stage in which group members worked together to compile the joint project. While the first stage was conducted online, it is clear from the discussion threads that the second involved face-to-face meetings (see 'offline meetings' below).

By and large, the groups' decisions in Task # 7b$^{(SG)}$ regarding task division cannot be said to reflect best practice in the authentic translation workplace. Students were unsure whether to amalgamate their glossaries, i.e. whether, having divided the source text between them, they should each compile a glossary for one half of the text or whether (as had been intended by the module instructors) they should merge their glossaries, ironing out differences in the process, and thus ensuring terminological consistency throughout the translation. Similar confusion arose with regard to the completed target texts, as revealed in the following student query:

> Was wondering if we need to do anything with our translations (when they're finished!) - like reading each other's, proofreading or anything like that...? Or do we just submit our respective sections to the tutors?

The fact that only the cooperative stage was conducted online accounts for the overwhelming predominance of 'non-cognitive' postings to the small-group conferences in Task # 7b$^{(SG)}$. As discussed in Chapter 2 (Section 2.4.4), cooperative groups are high on 'interdependence', i.e. group members' "dependence on each other to accomplish the learning goals" (Graham and Misanchuk 2004: 183; cited on page 44 above), but low on 'mutuality', i.e. the extent to which they are truly connected with one another and participating in discourse which is "extensive, intimate, and connected" (Damon and Phelps 1989: 10; cited on page 45 above). The fact that each student was working alone on one half of the translation meant that there was little need or capacity to share information arising directly from the learning task. Hence, in the end-of-semester survey, one student commented on the subject of small-group tasks: "[it] seemed pointless to me, as far as my groups were concerned, everybody just did their own thing anyway and only posted it together in the end" (cited also on page 122 above). This supports Graham and Misanchuk's contention that "collaboration in cooperative groups tends to occur primarily in the administrative aspects of the group such as deciding how to divide and assign work among group members" (2004: 184).

Offline Meetings

There were 9 references to offline meetings across the 9 small-group conferences. This, as well as the low message count in some of the conferences, allows us to conclude that groups chose to meet in person instead of conducting their business online. A number of reasons for this may exist. The first message in Group C's area emphasises the "human touch" in a face-to-face meeting:

> Hi [XX] - I'm sorry, but I don't know who you are! Although this may in theory work without ever having to meet, I think it would still be nice to have that human touch, and meet face to face!

As students were on campus, it was natural that they would meet in person. However, another message from the same group raises further issues. Indeed, it calls into question the ability of groups to reach consensus and complete a task of this kind when communicating solely via an asynchronous network:

> It might be a bit hard to do the glossary together - I need to submit mine today, as I have no internet at home, and am not able to come in tomorrow...also it strikes me that it would be rather time consuming to compare our lists and decide who is right, or compromise or whatever...plus I don't know how we would go about doing that on the web. I suppose that is also a comment on group work in this module, I'm not sure that it is really effective in this form, as everyone works to their own schedule.

A number of issues are raised in this posting: Internet access, time constraints and the difficulty of decision-making via networked communication. Asking online students to coordinate the creation of a group product generates a number of logistical problems. Not all participants can be expected to have Internet access at home. Indeed, Appendix L at the end of the study shows that of the 20 students enrolled for module GE502, only 5 could log on to the course website from home. This placed considerable limitations on when and how often the other 15 could contribute to any group task. A further issue is the ability to reach consensus when communicating via an asynchronous network. We will return to this when we evaluate student perceptions of the pair translation task below. There it will become apparent that as long as group members were working in a cooperative structure on subsections of the larger task, interaction (albeit mainly of a 'non-cognitive' nature) took place online. However, when it came to finalising the

learning product, groups found it necessary to communicate and meet offline. This replicates research findings by Bennett (2004) whose study of online project teams found that "towards the end of the production, some teams found they needed to meet and work on the project together" (2004: 17). According to Bennett, students found it necessary to meet face-to-face in order to provide "critical support during the production phase" (ibid.).

6.1.7 Student Perceptions: Open-Ended Question on Pair Task

Having completed the pair translation, learners were asked to reflect on the experience, and to mail their comments to the module instructors. 18 students out of 20 posted their reflections, which may be grouped under four headings: the benefits of pair work; the drawbacks of pair work; the benefits of online interaction; and the drawbacks of online interaction. It is interesting to note that the majority of student comments came under one of two headings: the benefits of pair work and the drawbacks of undertaking group tasks of this kind online. While the first two sets of comments (relating to pair work) do not refer specifically to the online environment, they nonetheless provide relevant insight into student experiences of online group learning.

The Benefits of Pair Work

One of the most frequently cited advantages of working together was the ability to draw on more than one viewpoint for the translation task. Students appreciated receiving feedback from each other and proofreading one another's work. Some mentioned a lighter workload as a result of being able to divide the tasks in half. These advantages are summed up in the following posting:

> what i also like about group work, is that, when you split up the text (as we did), there [is] not only the advantage that the part you have to translate is shorter, but it's more easy to proof-read the parts of your colleagues than it is to proof-read your own translation.

Further benefits relate to the complementary abilities students brought to the learning task. One student mentioned that he had profited from the computer skills of his counterpart, another that her partner was a more advanced student with more translation experience. Finally, three students commented on the advantages of interaction between

native speakers of German and native speakers of English, as summarised in the following posting:

> Working together with my fellow student had the advantage that she could correct the mistakes in my English text and I could help her understanding the meaning of some of the German sentences. In this sense the outcome of the group work was really positive.

The Drawbacks of Pair Work

Some of the drawbacks cited by learners related to planning and managing the learning task. One student said it was difficult to decide who should be doing what, another referred to the problems of coordinating group activity, while a third stated that she found it hard to contact her partner. A more-frequently cited drawback related to time: although one of the benefits of teamwork listed in the last paragraph was workload reduction, other students commented that it was actually *more* time-consuming to have to join forces on the final product. Time seems not to have been an issue as long as groups worked in a cooperative structure with students completing subdivisions of the task on an individual basis; however, when it came to combining their efforts in a more collaborative approach, the situation became more complex. One student remarked that it was "time-consuming to proofread and offer suggestions to the group members", another that "any changes suggested by either one of us generated fairly lengthy discussions". This problem is further expanded on in the following message:

> if you have three opinions on a sentence and all make sense but each person prefers their version how do you reach a compromise? if you have full faith in your version, you want to use it but it is hard to say to the other group members that yours is better!!

In their comments on the drawbacks of pair work, students also expressed preferences for certain types of group-learning structure. Because of the difficulty of reaching group consensus, one student commented that she would have preferred to "do a full translation myself and be completely happy with it when submitting it". This may be interpreted as a preference for a discussion-group structure where students work individually but in parallel on the same tasks, bearing individual responsibility for the learning product. It also supports Dirkx and Smith's (2004) finding discussed in the

Literature Review in Chapter 2 that online students prefer to have individual responsibility and personal accountability for their own learning (see page 49/50 above).

A further comment on group-learning structure was made by a student who suggested that in Task # 7b(SG), intragroup agreement was hampered by the fact that members had worked individually on subsections of the task. She wrote that she would now approach any future pair assignment in a different way. In the posting quoted below, she outlines the difficulties of a cooperative procedure and proposes instead a more collaborative approach to pair interaction:

> this was also a difficulty that had to be overcome, in the sense that we split our text in half , and then to put it together in two completely different styles of writing. if I were to do it again, I would probably go about things a little different, more interaction with the other person, both on and off line, do the whole text together rather than splitting it.

What this participant proposes is that when operating in pairs, students would be best advised to work together on the entire translation, rather than taking one half each to translate. This would allow for more and better quality interaction with the other person and would ensure that students truly debate and negotiate translation solutions. This argument supports Graham and Misanchuk's contention that a collaborative approach provides more of a learning focus, as opposed to a cooperative procedure where the focus is on efficiency at the expense of discussion and negotiation (see page 48 above for the distinction between 'learning focus' and 'efficiency focus'). However, it will emerge below that a collaborative approach to the creation of a joint product brings its own challenges when an asynchronous network is the only means of communication available to group members.

The Benefits of Online Interaction

Only two comments referred specifically to the benefits of online collaboration in the small-group conferences. Both related to management of the learning task. One participant stated that it was useful to have "a common work area to communicate and post our draft translations", another that it was beneficial to be able to contact other group members via WebCT®. While there were no other remarks on the benefits of the private group conferences set up to facilitate pair work in Task # 7b(SG), a number of students

took the opportunity to post observations on the effectiveness of the *public* conference (# 7a) to which all class members had access during the pair task. As the following posting demonstrates, questions to the open forum elicited more and faster responses, an important advantage for students who log on to the course website only once a day:

> I preferred to place questions on terminology and target text formulations in the public discussion area because I thought that this was the most effective way of getting a quick response, as we are not online all the time. I imagine that this kind of group work can be useful for translators who are online all the time, unless it is just too time consuming to wait for the response of a single partner.

Furthermore, some students made comments on what they considered to be the effective nature of the whole-class discussion groups, a structure they were already familiar with by the time the pair translation task was implemented:

> I think though that because we have these discussion threads involving the whole class, there is a good bit of teamwork going on already. We are all sharing difficulties and possible solutions, which I think is a great way to work.

Finally, the following student also expresses a clear preference for a discussion-group structure:

> I think the possibilities for discussing certain problems or ideas with the whole group are great and work well, but I am not so enthusiastic about the group project, sorry

The Disadvantages of Online Interaction

Students posted a large number of comments on what they perceived to be the disadvantages of completing the pair assignment online. We have already noted that when it came to finalising the joint product, groups opted to meet in person rather than using the course Website to interact. The following posting is typical of the many remarks posted on this topic:

> As regards online pair work, I think this is one area where face-to-face meetings are essential. WebCT is more useful for arranging times and places to meet etc.

But why was it essential to meet face-to-face for this activity? Was it simply because students were on campus and found it easy to meet? Certainly the following group could not have been expected to carry out their interactions online:

> you might have wondered why there wasn't that an intensive online discussion between us. the answer is a simple one: we share the same flat. most of the team work, consequently, took place face on face. well, I hope that isn't against the 'rules' of a web based class. in our case, however, it was just the result of the given circumstances :)

But this does not explain why *all* groups opted to conduct their discussions in person rather than using the private conference areas assigned to them for this purpose. Why did students shun the online discussion facility with the pair translation task, but not with prior (and subsequent) discussion-group tasks when they successfully used the public conferences to interact with other class members? Was the nature of this task ill-suited to the online medium? One group appears to have conducted the final stages of the assignment online, a frustrating (and ineffective) exercise, according to the following posting:

> on the day when we were finalising our translation, we were all spread out and the translation was just mailed back and forth with corrections and suggestions in tow each time. I do think a face-to-face meeting would have made it a lot easier and would have benefitted us more.

It would appear that asynchronous discussion, with the inherent time lag between initiation and response, is not suited to the kind of negotiation and decision-making which the production of a *single* translation by a group or pair of learners requires. One student complained:

> Sometimes one of us would be online, asking an important question, and the other would not get it until hours later, or even the next day.

One commented that in order to complete the assignment online, a (synchronous) chat facility would have been needed; another that "the only way to communicate over WebCT would have been to agree upon a certain time when both can be online". Most argued that face-to-face meetings were simply more effective for agreeing on changes and arriving at group consensus. This opinion, expressed by many, is best summarised in the following posting:

> we reduced our online contact quite to the minimum and decided in the end to do the revision of our respective translations "face-to-face". This actually proved to be a good idea, as we talked quite a lot about the text and could share many ideas that came up during our discussion. If we had done this online

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it would have taken us ages and probably we wouldn't have come
up with so many suggestions.
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These findings support the conclusions drawn in Section 2.4.5 of the Literature Review in Chapter 2 that it is not the interaction *per se* that online students find difficult, but working together to accomplish common goals or produce a common product. In Task # $7b^{(SG)}$, online communication appears to have broken down at the stage when groups attempted to finalise the learning product in a collaborative procedure involving negotiation and debate, at which point they opted to meet in person. This finding is consistent with Bennett (2004), cited on page 173 above, who found that project teams felt the need to meet face-to-face (or at least communicate synchronously via telephone) the further they advanced into the online project.

6.1.8 Concluding Remarks on Task # $7b^{(SG)}$

The analysis of Task # $7b^{(SG)}$ is particularly informative with regard to the effectiveness of different group structures in the online translation classroom. We found first of all that when dyads or small groups were given complete freedom to select a group structure, they opted for a two-stage procedure. The first was a cooperative structure in which chunks of the overall task were allocated to and completed by individual group members. This was followed by a collaborative structure in which group members liaised to complete the final product. A number of difficulties arose with both approaches. Firstly, when students engaged in Task # $7b^{(SG)}$ adopted a cooperative-group structure, decisions taken regarding the division of labour did not reflect the authentic translation workplace where translators working in teams assume responsibility for <u>one</u> aspect of the final product i.e. terminology, target-text production, editing or project management. This led to difficulties with consistency and coherence of the final product. Secondly, when it came to the collaborative stage, groups found the text-based, asynchronous medium ill-suited to negotiating solutions and reaching consensus, and hence decided to meet in person.

When the small-group translation task was compared to the whole-class discussion-group tasks analysed in Chapter 5, it was shown to be less effective on a number of fronts in creating and sustaining an online community of inquiry. In particular, the proportion of

cognitive postings was substantially lower in the small-group conferences, as was the percentage of intermessage references and the proportion of social presence indicators in the 'interactive' category. We may conclude from this analysis that a whole-class discussion-group structure is more effective in promoting group learning via text-based asynchronous discussion threads than the small-group structures implemented in Task # $7b^{(SG)}$. We also found that in commenting on the pair translation task, some students expressed a preference for whole-class discussion groups, which, they felt, generated more discussion and elicited faster responses.

In the remainder of this chapter, we will examine two small-group translation tasks carried out in the second implementation of the module to see the extent to which the conclusions drawn for Task # $7b^{(SG)}$ were replicated when the task structure was repeated (Task # $IIIb^{(SG)}$) or altered when an overtly cooperative structure was imposed by the module instructor (Task # $VIII^{(SG)}$).

6.2 Task # $III^{(SG)}$. Pair Translation Task 2004/5

For the pair translation task in the second delivery of module GE502, the six students who had enrolled by Week 3 of the semester were divided into three groups of two. A private conference area (referred to henceforth as # IIIb) was set up for each of the three pairs, to which the teaching assistant, but not the main module instructor had access. In order to encourage online interaction, the task description now included the following sentence: "As far as possible, all assignment-related discussion with your partner should take place via this private thread". For the duration of the task, students also had access to a public discussion forum (referred to as # IIIa), open to the entire class group and to the two module instructors, to which they uploaded parallel texts and glossaries, and made postings of relevance to the entire class group. As in the first module delivery, subtasks were specified by the module instructors but were not allocated to individual students, and pairs were asked to use their private conference areas to discuss the division of tasks between them. Unlike the first module delivery, students were not asked to reflect on the pair translation task having completed it (see Chapter 4, Section 4.5 for the decision to reduce the number of reflection tasks in the second delivery of the module).

6.2.1 Task # IIIb$^{(SG)}$. Participation and Interaction Levels

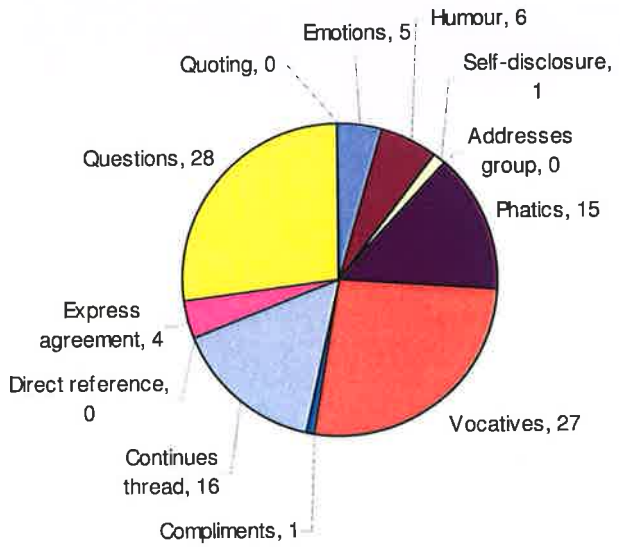
The number of messages per group gives a first indication of participation levels. This shows that as in the pair translation task in 2003/4, private conference areas were used to greatly varying degrees by the different groups. One of the three (Group Z) failed to communicate at all online; this group's discussion area contains only the initial posting by the teaching assistant. In their case, one student did not participate in the pair assignment, leaving the remaining group member to complete the translation alone (and offline). Hence, Group Z's private conference will not be considered further in the analysis that follows. Group X, on the other hand, made a total of 26 postings, more than any group for the same activity during Phase 1 where the maximum number of messages for a single group was 15 (see Figure 6.1, page 163), while Group Y made a total of 8 postings. Once again, the question arises whether the groups who made little or no use of their conference areas (in this case, Group Y) failed to interact at all or whether teamwork occurred exclusively offline.

Interaction levels for Groups X and Y may be gauged by examining the percentage of intermessage references and the number and size of message clusters. Group X, as well as having a higher percentage of intermessage references at 65.4% (as against 25% for Group Y), also posted larger message clusters: of a total of 6 clusters, 3 clusters comprised 2 messages each; 1 comprised 3 messages and 2 comprised 4 messages. In Group Y's conference area, there was only one message cluster containing 2 messages. On the basis of the analysis thus far, we can say that Group X recorded both higher participation and higher interaction levels than Group Y. Compared with the same task in 2003/4, however, there is no noticeable difference in interaction levels – there we found readings ranging from 100% down to 0% (See Figure 6.2, page 164 above). Nor are levels as high as those measured for the whole-class discussion-group tasks in Chapter 4 where percentages of intermessage references of between 94% and 100% were found (see Figure 4.4, page 107). Like Task # 7b$^{(SG)}$, the number and size of message clusters do not indicate high levels of interactivity in Task # IIIb$^{(SG)}$. In total, there were six clusters of which four consisted of 2 messages, one of 3 messages and one of 4.

6.2.2 Task # IIIb$^{(SG)}$. Social Presence

The results of measuring social presence per indicator across the two small-group conferences for Task # IIIb$^{(SG)}$ are presented in Figure 6.6 below. There was a total of 101 instances of social presence measured across the two conferences, and four categories emerged as the most prominent: 'questions', 'vocatives', 'continuing a thread' and 'phatics'. These are the same indicators that recorded high levels in Task # 7b$^{(SG)}$.

Figure 6.6 Task # IIIb$^{(SG)}$, Social Presence per Indicator



Grouped into categories, this equates to 12 (or 11.9%) for the 'affective' category, 40 (or 39.6%) for the 'cohesive' and 49 (or 48.5%) for the 'interactive' category. Again the results are roughly similar to Task # 7b$^{(SG)}$ where levels of 14% were recorded for the 'affective' category, 42% for the 'cohesive' and 43.5% for the 'interactive' category (see Section 6.1.3 above). Finally, in Task # IIIb$^{(SG)}$, social presence density was measured at 41.1, as compared to a reading of 36.24 across the nine private conferences in Task # 7b$^{(SG)}$. Again, on the basis of social presence, we may conclude that there was no significant difference between Task # 7b$^{(SG)}$ and Task # IIIb$^{(SG)}$.

6.2.3 Task # IIIb$^{(SG)}$. Teaching Presence

As in the first iteration of this task, the main module instructor did not have access to the private conferences. This reflected a deliberate decision to replicate as closely as possible the design structure for the pair activity in 2003/4. Of the 34 messages posted to the two private group conferences, 4 (or 11.8%) were sent by the teaching assistant. While this equates to a stronger teaching presence than for the equivalent activity in 2003/4 (3.8%), the difference relates mainly to initial postings by the teaching assistant to each of the group conferences. Two of the messages were classified as 'design' and contained suggestions as to how the private conference areas might be used during the pair task. The remaining two teaching messages were categorised as 'other' and in them the teaching assistant acknowledged receipt of completed group assignments. It may be said that, as in the first delivery, teaching presence was very low for the pair translation task. Once again this can be explained by a deliberate design decision intended to remove any potential inhibition resulting from a strong teaching presence in the small-group conferences.

6.2.4 Task # IIIb$^{(SG)}$. Cognitive Postings

Of the 34 postings to the two private conferences assigned to Groups X and Y, 6 (or 17.6%) were classified as 'cognitive'. These were categorised using Garrison et al.'s (2001) 'cognitive presence' rubric as: 1 'triggering', 4 'exploration' and 1 'integration'. While a reading of 6 messages (or 17.6%) for cognitive postings is higher than for Task # 7b$^{(SG)}$, where only one message was classified as 'cognitive', it is still considerably lower than that recorded for the whole-class discussion-group target-text production tasks reviewed in Chapter 5 (see Figure 5.11, page 144).

6.2.5 Task # IIIb$^{(SG)}$. 'Non-cognitive' Postings

In Task # IIIb$^{(SG)}$, 28 messages (or 82.4 %) were categorised as 'non-cognitive'. Thus, as in Task # 7b$^{(SG)}$, 'organisational' postings dominated the small-group conferences. While a 'non-cognitive' reading of 82.4 % is less than for Task # 7b$^{(SG)}$, where 98% of messages were categorised as relating to planning and managing the learning task (see Section 6.1.5 above), it is still very elevated when compared to the whole-class discussion-group

target-text production tasks reviewed in Chapter 5 (see Figure 5.11, page 144). The 28 'non-cognitive' messages were classified as belonging to one of the four categories used in the evaluation of Task # 7b$^{(SG)}$: 'file sharing', 'deadlines', 'roles' and 'offline meetings'. Table 6.2 below gives a breakdown of 'non-cognitive' categories across the small-group conferences, showing a total of 38 instances across the 28 'non-cognitive' postings.

Table 6.2 Task # IIIb$^{(SG)}$. 'Non-Cognitive' Postings to Small-Group Conferences

Category	*Indicator*	*No. of instances*
File sharing	File upload	3
	Request for file upload	0
	Acknowledgement of file upload	2
Deadlines	Timeline for subtasks	1
Roles	Task division	9
	Clarification of roles	0
Offline Meeting	Arranging / referring to offline meeting	16
Other		7
TOTAL		38

File Sharing/ Deadlines

Five instances of groups using their private conference areas to upload files were found (13.2% of 'non-cognitive' postings). In two cases, students uploaded their completed assignments to the conference area, thereby fulfilling the task requirements. In a third example, a revised target text incorporating comments from the module instructor was posted. Two examples of acknowledging uploaded files were also found. At 13.2%, this category was much lower than for the same category in Task # 7b$^{(SG)}$. This may be explained by the fact that there were only two groups this time around as opposed to 9 for the first implementation of the task.

As in Task # 7b$^{(SG)}$, there was very little direct reference in the online postings to deadlines for task completion (one instance only).

Task Division

In 9 messages (or 26.5% of 'non-cognitive' postings), students discussed the division of tasks between them. Similar to their counterparts in Task # 7b$^{(SG)}$, Group X decided to split the text in two and to proceed individually on translating the two halves:

> I would suggest we both take half of the text for initial translation and then we can come together and exchange ideas/comments etc.

Like the groups in Task # 7b$^{(SG)}$, Group X first adopted a cooperative approach to the translation task, with each student assuming responsibility for the translation of one half of the text. Some of the drawbacks of this approach highlighted in Section 6.1.6 above were recognised by one of the members of Group X, who nevertheless agreed with the suggested procedure:

> it makes sense to divide the text in two and to translate fully our respective sections. We may have issues with differing styles, interpretation, or understanding of terms that appear in both sections. Also, we may find that our sections don't fit together well, however, I think we can merge our translations and proof-read the text as a whole.

As regards the glossary task, Group X decided that each student in the pair would compile a glossary for her section of the text and that the two lists would then be merged, ironing out inconsistencies and duplications in the process. When it came to finalising the translation, Group X, like the groups in Task # 7b$^{(SG)}$, decided to meet. The two-staged procedure – cooperative structure followed by collaboration involving a face-to-face meeting – which is familiar from our discussion of Task # 7b$^{(SG)}$, is summarised in the following student posting:

> we may find that our sections don't fit together well, however, I think we can merge our translations and proof-read the text as a whole. So, what if we each take a section of the text, translate it, post it to the forum, then merge our sections for review? Once we've reviewed the combined text individually we could then have a face-to-face meeting to discuss.

A different approach was taken by Group Y. They first allocated subtasks of terminological research and editing on a cooperative basis following a suggestion by the German-speaking partner who felt their respective strengths could best be deployed as follows:

> Considering the fact that I'm not a native speaker of English I think it would make sense if you could proofread our translation? I will try and sort the terminology out and make up the glossary for Friday 22nd. Would you be able to look into parallel texts and post them to the discussion thread?

However, when it came to translating the text, the following approach was taken: "I think it would be best if the two of us translated the whole text, because only then will we be able to discuss it properly". The second student in the group agreed with this because she felt that "if we split it, then we can't discuss specific problems". It may be said that Group Y was the only group across the two implementations of the pair translation task to adopt a collaborative strategy to the target-text production. It is interesting to note that based on the last two comments, group members anticipated more fruitful discussions (and hence higher levels of mutuality) resulting from a collaborative approach. They agreed that if they both translated the entire text, they would be in a better position afterwards to consider and resolve potential problems. Their predictions are supported by the research literature, particular Graham and Misanchuk's (2004) assertion that collaborative groups display higher levels of interdependence than cooperative groups and Damon and Phelps' (1989: 13) contention that a collaborative learning arrangement leads to a learning engagement which "is rich in mutual discovery, reciprocal feedback, and frequent sharing of ideas" (see Chapter 2, page 46 above).

Having opted for a collaborative approach, Group Y decided to meet in person. Again, this supports the findings from the investigation of Task # $7b^{(SG)}$ that asynchronous text-based communication is ill-suited to the creation of a collective product on a collaborative basis and that such an approach will inevitably lead to groups deciding to meet, or at least communicate, offline (see page 178 above). Because very little cognitive discussion occurred online, it is not possible to verify whether or not Group Y's approach led to more fruitful dialogue. However, for the reasons given by the students themselves and on the basis of the conclusions we drew from our analysis of Task # $7b^{(SG)}$, we may assume that the decision that both students translate the entire text will have enhanced the quality of the interaction when they met face-to-face to finalise the target text. Furthermore, their approach to the subtasks of terminological research and proofreading

was one that reflected the type of task division that happens in the real-world translation workplace.

Offline Meetings

Of the 34 instances of 'non-cognitive' postings found across the small-group conferences in Task # III$^{(SG)}$, sixteen (or 47.1%) related to offline meetings. Thus, the main use made of the private discussion areas by the small groups was to arrange offline meetings. In the postings quoted above, Group X arranged to come together to discuss their respective sections. Similarly, having each translated the entire text, Group Y met face-to-face to agree a final version.

6.2.6 Concluding Remarks on Task # III$^{(SG)}$

The evaluation of the second implementation of the pair translation task confirms the findings from the first. Firstly, private conference areas were used to greatly varying degrees by the different pairs. Secondly, postings were predominantly of a 'non-cognitive' nature, with discussion threads being used primarily to arrange offline meetings, share files and discuss task division. Thirdly, when it came to cognitive interaction, and in particular to the discussion and negotiation of final translation solutions, the pairs preferred to meet in person rather than conducting such discussions online.

We found that when left to make their own decisions regarding task division, the two groups engaged in Task # III$^{(SG)}$ opted for different approaches. Similar to the groups in Task # 7b$^{(SG)}$, Group X divided the translation and glossary tasks in two, each assuming responsibility for one half. This has been found in this chapter to be problematic for two reasons: it neither reflects what happens in the translation workplace, nor does it enhance the learning experience when the pairs come together to finalise the assignment. Group Y took a cooperative approach to the subtasks of terminology research and proofreading, with each assuming responsibility for one task. This was followed by a collaborative approach to target-text production with each student working in parallel on the same task. It was predicted by the students themselves that this form of collaboration would lead to the production of a more coherent and consistent target text and also to higher levels of

cognitive exchange between the group members. However, because the collaborative stage took place offline (as it did in Task # $7b^{(SG)}$) the type and quality of interaction that took place between the members of Group Y could not be investigated via the discussion threads.

6.3 Task # VIII$^{(SG)}$: Group Translation

When module GE502 was redelivered in academic year 2004/5, a group translation task with an overtly cooperative or 'jigsaw' approach and with a rigid instructor-imposed structure was implemented. The decision to introduce a group translation task, with subtasks identified and allocated by the instructor based on subdivisions of the translation process, was taken in order that group interaction would mirror as closely as possible the 'real-life' teamwork that takes place in the translation workplace (see Chapter 2, Section 2.2.5, page 25/6). It was also the researcher's intention to investigate how a deliberately cooperative-group structure would impact on the group-learning experience and how this would compare with the pair translation tasks discussed in Sections 6.1 and 6.2 above.

The group translation exercise took place in Week 9, towards the end of the semester. Two groups of four students each were established, subdivisions of the task were identified in advance, and students were allocated specific subtasks by the module instructors. In each group, one student was assigned to terminological research/identification of parallel texts; two to target-text production; and one to target-text revision. The structure of this learning activity was designed to reflect as closely as possible the type of cooperation experienced by translators in 'real-life' situations, and described by Mackenzie and Vienne as follows:

> The translator as a representative of personnel may need in turn to cooperate with the client, a reviser, subject experts and possibly with other translators working on the same project. In real-life translation projects the team can consist of translators, revisers and a project manager, whose task is to acquire resources, such as the appropriate parallel texts and dictionaries, and place them at the disposal of the translator(s) and reviser, to compile an inventory of terminology in order to ensure consistency, and to pool and find solutions to problems arising (2000: 127).

While a final deadline for submitting the group translation was set by the module instructors, groups were asked to agree amongst themselves on a timeframe for the completion of subtasks. Each group was allocated a private conference area to which they and the teaching assistant had access, but unlike the pair translation tasks, there was no public discussion forum associated with the assignment. As well as working on individual tasks, students were encouraged to interact with one another via small-group conferences by sharing work and information relevant to all aspects of the translation process. In this way, the module instructors hoped to maximise the online learning experience by combining the strengths of cooperative learning and task specialisation, with the richness of collaborative dialogue and interaction, bearing in mind Damon and Phelps' argument that higher levels of mutuality can be achieved by cooperative learning arrangements which "focus on intragroup discussion around task solutions rather than on task subdivision, intergroup competition, and extrinsic reward" (1989: 13; cited in Chapter 2, Section 2.4.4, page 45 above).

6.3.1 Task # VIII$^{(SG)}$. Participation and Interaction Levels

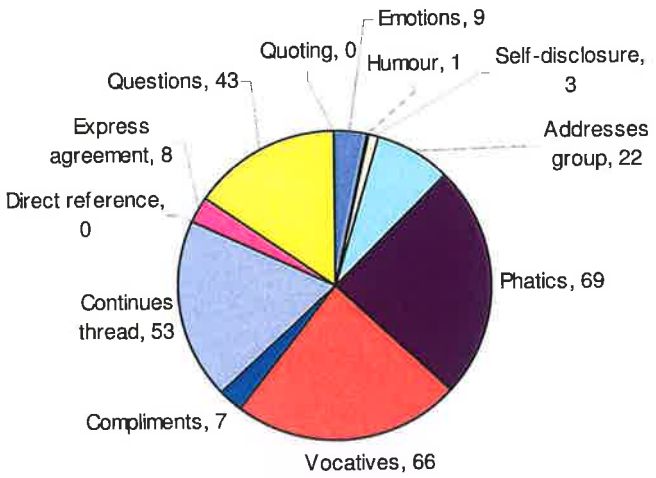
As in other group tasks, online participation levels were first measured by counting the number of postings per group. This calculation yielded results of 33 messages for Group S and 52 messages for Group T, considerably higher than for the pair translation tasks where maximum levels of 15 (Task # 7b$^{(SG)}$) and 22 (Task # IIIb$^{(SG)}$) postings per group conference were recorded. At 78.8% (Group S) and 94.2% (Group T), levels of intermessage references were also higher here than in the pair translation tasks. Indeed, Group T's level of intermessage references is comparable to the levels seen for the target-text production tasks reviewed in Chapter 4 where measurements of between 94.6% and 100% were recorded (see Figure 4.4, page 107). Similarly, the number and size of message clusters indicated much higher levels of interaction than in either of the pair translation tasks. There were 21 clusters of which 7 comprised two messages, 6 comprised three messages, 5 comprised four and 3 comprised more than five. This also compares favourably to the number and size of message clusters in the target-text production tasks reviewed in Chapter 4 (see Figure 4.5, page 108 and Table 4.8, page 109).

6.3.2 Task # VIII$^{(SG)}$. Social Presence

A total of 281 instances of social presence were recorded across the two group conferences. Figure 6.7 below shows that the four most prominent indicators here were 'phatics', 'vocatives', 'continues a thread' and 'questions'. Thus, in terms of social presence indicators, Task # VIII$^{(SG)}$ did not differ greatly from either of the two pair translation tasks reviewed in Sections 6.1 and 6.2 above (see Figure 6.5, page 167 and Figure 6.6, page 181).

Per category, social presence in Task # VIII$^{(SG)}$ was measured at 13 out of 281 (4.6%) for the 'affective' category, 157 (55.9%) for the 'cohesive' and 111 (39.5%) for the 'interactive' category. At 39.5%, the 'interactive' category is somewhat lower but comparable to those measured for the pair translation tasks (43.5% and 48.5% respectively.)

Figure 6.7 Task # VIIIb$^{(SG)}$. Social Presence per Indicator



Finally, at 40.5, social presence density in Task # VIIIb$^{(SG)}$ is also comparable to levels measured in Task # 7b$^{(SG)}$ and Task # III$^{(SG)}$ (36.24 and 36.24 respectively).

The analysis of social presence across the three group translation tasks in this chapter has yielded very similar results (see also Sections 6.1.3 and 6.2.2). We may conclude that while the social presence rubric is a useful tool in providing an in-depth description of online interaction (as in Chapter 5, Section 5.2), it is less useful when it comes to differentiating between different activities on the basis of task structure. Hence, social presence will not be included in the analysis of small-group tasks in the next chapter.

6.3.3 Task # VIII$^{(SG)}$. Teaching Presence

8 messages were categorised as 'teaching'. This equates to just under 9.4% of small-group postings for this activity. The 8 'teaching' messages were distributed equally across the two groups, and all belonged to the 'design' category. In the case of Group T, 2 teaching messages were classified as 'medium' (instructions on how to use the online medium to maximum effect) and two as 'methods' (directions on how to go about completing the assignment). Of the four messages sent to Group S's discussion conference, three were classified as 'methods', and one as 'other'.

In two messages categorised as 'methods', the teaching assistant intervened to encourage interaction between participants. This is illustrated by following message:

> Even though you have all been allocated your own subtasks, there is no reason why group members shouldn't use this discussion area to contribute ideas and raise questions relating to other aspects of the group translation.
>
> Those working on target text production for example would, I'm sure, welcome the input of the other group members. So even if you personally have completed the glossary task, or are awaiting the target text for revision purposes, you could contribute ideas here for the target text production task.

This interjection was made with the intention of encouraging maximum levels of collaboration and mutuality in a task that was fundamentally cooperative in structure.

6.3.4 Task # VIII$^{(SG)}$. Cognitive Postings

Of the 85 messages posted to the two small-group conferences, 28 (32.9%) were classified as 'cognitive' and 57 (67.1%) as 'non-cognitive'. While 'organisational' messages predominated in the two group conferences for this task, both also had higher levels of cognitive presence than those found for the small-group conferences in Sections

6.1.5 and 6.2.4 above (2% cognitive postings for Task # 7b$^{(SG)}$ and 20% for Task # IIIb$^{(SG)}$). This suggests that as well as an 'efficiency focus' resulting from the cooperative structure imposed by the module instructors, online discussions in Task # IIIb$^{(SG)}$ also had a 'learning focus' with translation solutions being generated and negotiated in the groups' private conference areas (see page 48 above for Graham and Misanchuk's (2004) use of the terms 'efficiency focus' and 'learning focus'). Group T had a particularly high percentage of cognitive postings (40%) in comparison both to Group S (21%) and to the reading across all group conferences in the pair translation tasks. However, these measurements are still considerably lower than those recorded for the target-text production tasks which were the most successful whole-class discussion-group tasks reviewed in Chapter 5 (see Figure 5.11, page 144).

Using Garrison et al.'s (2001) rubric, cognitive postings to the small-group conferences in Task # VIII$^{(SG)}$ were categorised according to three levels: 'triggering', 'exploration' and 'integration'. The results of this analysis are displayed in Table 6.3 below:

Table 6.3 Task # VIII$^{(SG)}$. Cognitive Postings to Small-Group Conferences

Category	*Indicator*	*No of instances*
Triggering	Question	5
Exploration	Brainstorming	1
	Suggestions	3
Integration	Agreement within group	9
	Connecting ideas	7
	Solution	3
Total		*28*

This Table shows that of the messages categorised as 'cognitive', a large proportion were at the 'integration' level: 19 instances out of 28 or 67.9%. (Of these, 5 'integration' messages or 71.4% of cognitive postings were posted to Group S's conference and 14 'integration' messages or 66% of cognitive postings to Group T's).

While the comparatively high proportion and levels of cognitive postings may be considered a positive outcome of this activity, there is evidence in the discussion threads that groups found it difficult to reach consensus online. This may be illustrated by

examining two of the cognitive exchanges in Group T's discussion area. The first was triggered by the group's reviser (who posted three of the Group's four 'triggering' events) and related to the term "Bundeskabinett":

> I'm inclined to change "German Federal Cabinet" to "The German Cabinet." I can't explain exactly why other than a feeling that the term "federal" isn't as widely-used since unification as "Bundes-" now applies to Germany as a whole. This is just my feeling/understanding, so please correct me if I'm wrong.

Two messages followed, in which there was agreement that the term 'federal' should be omitted or replaced by the word 'German'. In a later cluster, however, the reviser raised the term 'federal' again, asking whether other group members felt it should be used in the context of "federal employment agency", or whether "German employment agency" would be better. Two students suggested using 'federal' here, another stated "I would definitely leave out federal". The student who had originally triggered the discussion finally deferred to the instructor's judgement stating that "following the previous messages, I had decided to leave it in" and that "whilst it's not too late to change it, I would prefer not to at this stage". This sequence demonstrates the difficulty of reaching consensus online, a conclusion that is borne out by the research literature where decision-making is pinpointed as one of the key challenges for online groups (see e.g. Rose 2002: 40). It also helps to explain why when it came to agreeing translation solutions, many groups reviewed in this chapter found it easier to conduct discussions in person.

6.3.5 Task # VIII$^{(SG)}$. 'Non-Cognitive' Postings

A total of 71 'non-cognitive' instances were found across the two group conferences, with some messages performing more than one 'organisational' function. Table 6.4 below shows the number of instances per 'non-cognitive' category across the two group conferences:

Table 6.4 Task # VIII$^{(SG)}$. 'Non-Cognitive' Postings to Small-Group Conferences		
Category	*Indicator*	*No of instances*
File sharing	File upload Request for file upload Acknowledgement of file upload	11 2 11
Deadlines	Timeline for subtasks	13
Roles	Task division Clarification of roles	7 15
Offline Meeting	Arranging / referring to offline meeting	6
Other		6
TOTAL		71

File Sharing/ Deadlines

22 examples of file sharing were found. This equates to 31% of 'organisational' postings and, along with 'discussion of roles' (see below), represents the largest category of 'non-cognitive' posting for Task # VIII$^{(SG)}$. Thus, it may be said that in terms of organising the learning activity, small groups used their private discussion areas primarily to exchange files with one another. This finding is comparable to Task # 7$^{(SG)}$ where 48% of 'non-cognitive' postings belonged to the 'file sharing' category.

In 13 instances, participants negotiated deadlines for the completion of subtasks. This represents 18.3% of 'organisational' examples. The discussion of deadlines was prompted by the task description in the course content section: while a final deadline was set for submission of the translated text, groups were asked to agree amongst themselves a timeframe for completion of subtasks.

Discussion of Roles

In 22 instances, participants used the conferences to discuss their individual roles in completing the group assignment. Along with 'file sharing', this represents the largest category of 'non-cognitive' postings at 31%. In 7 instances, the two designated translators in each group considered the division of tasks between them. In Group S, the translators decided to split the text in two despite the legitimate concern expressed by the following (German-speaking) student:

> i think it would be ok to divide the text. It seems fair. i am just afraid it might look really awkward in the end, as i am not a native speaker...should we leave this worries for the reviser?

Similarly, the translators in Group T divided the source text into two parts for the reason cited by the following student:

> Well I just wanted to suggest that we divide up the target text, otherwise the editor will have two completely different versions to be working from.

It may be said that although the translators had some misgivings about dividing the text between them, the group project mirrored 'real-life' translation situations where terminological consistency and target-text cohesion are ensured by the presence of terminologists and revisers.

Offline Meetings

There are six references to offline meetings across the two group conferences in Task # VIII$^{(SG)}$. Four of these were made by Group S, where it appears that the two students assigned to the translation task met to divide the text between them and possibly to collate the final version. Apart from this, all interaction in Group S appears to have taken place online. In Group T's conference area, a suggestion was made to meet, but this appears not to have been acted upon. Instead the group went along with this student's suggestion that "we should all just go about carrying out our subtasks and then post to each other". We may conclude from this that the group task was carried out largely online as intended by the module instructors. This also supports the finding from Sections 6.1 and 6.2 that a cooperative-group structure with subtasks allocated to individual students enables a joint project to be completed using only asynchronous text-based communication.

6.3.6 Concluding Remarks on Task # VIII$^{(SG)}$

Task # VIII$^{(SG)}$ was a group translation task with an overtly cooperative structure designed to mirror as closely as possible teamwork practices in the authentic translation workplace. In addition, it was designed to maximise the strengths of the online learning experience by encouraging intragroup discussion around all aspects of the task, despite

the allocation of subdivisions of the task to individual group members. When comparisons were made between Task # VIII$^{(SG)}$ and the pair translation tasks, no notable differences were found in terms of social and teaching presence. However, all other measurements of group learning in the conference transcripts recorded higher readings for the group translation task. Higher participation and interaction levels were found, as well as a greater proportion of cognitive vs. 'non-cognitive' postings. And most notably, group production took place almost exclusively online, supporting the finding that, unlike collaborative groups, cooperative groups can achieve the creation of a joint project using only asynchronous text-based communication and without resorting to offline meetings.

When we compare Task # VIII$^{(SG)}$ to the target-text production tasks implemented using a whole-class discussion-group structure and analysed in Chapter 5, we find that it compares unfavourably to these in terms of the proportion of cognitive postings (an average of 30.5% cognitive postings in Task # VIII$^{(SG)}$ compared to readings of between 82.6% and 92.1% for the whole-class discussion-group target-text production tasks, see Figure 5.11, page 144) and the 'interactive' category of social presence (39.5% for Task # VIII$^{(SG)}$ in contrast to 55.87%, 60.44% and 51.90% for Tasks # 3$^{(TTP)}$, 19$^{(TTP)}$ and 21$^{(TTP)}$ respectively – see Figure 5.3, page 132). This, in combination with the lower proportion of intermessage references for Task # VIII$^{(SG)}$, allows us to conclude that while the group translation task succeeded on a number of fronts by mirroring authentic teamwork practices in the translation workplace and enabling all project-related work to be conducted online, it was not as effective as the discussion-group target-text production tasks in encouraging group learning via asynchronous discussion threads.

6.4 Chapter 6: Concluding Remarks

We may draw a number of conclusions from this chapter with regard to the impact of task structure on the development of group learning in an online translation classroom. In relation to cooperative, collaborative and discussion-group structures we may deduce the following:

Cooperative groups: In the pair translation tasks, when students were given complete freedom to decide on task allocation, the majority opted for a cooperative approach, but

selected a modus operandi which does not reflect the division of roles in the translation workplace. The decision taken by most groups to divide glossary and translation tasks in two impaired the consistency and coherence of the final product. Hence, where a group translation is required, the instructor should allocate tasks based on subdivisions of the translation process. In this way, group interaction will mirror the 'real-life' teamwork that takes place in the translation workplace (see Chapter 2, Section 2.2.5, page 25/6). However, instructors and designers should be aware that the allocation of individual responsibility for subdivisions of a larger task in a cooperative approach to group learning, as in Task # VIII$^{(SG)}$, while increasing the efficiency of the group process, may jeopardise mutuality and the joint construction of knowledge, as students will complete their subsections without the need or benefit of peer interaction. In such a scenario, the instructor needs to stress the importance of intragroup discussion and encourage mutual discovery and sharing of perspectives on all aspects of the task.

Collaborative groups: In Tasks # 7b$^{(SG)}$ and # III$^{(SG)}$, when small groups of students attempted to implement a collaborative structure, with all members discussing and negotiating all aspects of the joint task, online communication failed and groups sought to meet or communicate offline. This appears to be due to the difficulty of reaching consensus online – particularly where asynchronous text-based discussion is the only channel of communication between group members. This points to the need for synchronous communication – be it real-time chat, telephone or face-to-face meetings – where the joint creation of a group project using a collaborative procedure is required.

Discussion groups: While discussion groups did not form the focus of investigation in this chapter, we may also draw a number of conclusions about this type of structure. Several students expressed a preference for whole-class discussions combined with individual accountability for the learning product. On most measurements of group learning used in the present study, the discussion-group structure scores highest, particularly where the production of a target text is involved: there are considerably higher proportions of cognitive vs. 'non-cognitive' postings, there is a greater percentage of cognitive messages at the 'integration' level, there are more intermessage references and there are higher readings for the 'interactive' category of social presence.

Furthermore, where a discussion-group structure is implemented, learning-focussed discussion takes place online and there is no need for students to communicate synchronously.

We may also draw some conclusions in relation to methodologies available for the investigation of online group learning. The most informative indicators of group-learning processes in the analysis of conference transcripts to emerge in the last three chapters are: levels of intermessage references, number and size of message clusters, proportion of cognitive to 'non-cognitive' postings, cognitive presence levels (i.e. 'triggering', 'exploration', 'integration') and 'interactive' indicators as a proportion of overall social presence. High scores on all of these dimensions in combination with positive student perceptions may be taken as a reliable indication that successful online group learning has occurred. This chapter has also shown that less information may be gleaned from the analysis of the social presence and teaching presence dimensions of the 'Community of Inquiry' Model. Social presence, in particular, while a useful descriptive tool, has not proved helpful in contrasting conference transcripts from different task structures and will not be used in the next chapter.

Chapter 7 will focus on two further small-group tasks undertaken during 2003/4 and 2004/5. In both instances, a small-group evaluation assignment was carried out, with a cooperative-group structure in 2003/4 and a collaborative structure in 2004/5. The analysis of these tasks will enable us to investigate the relevance of the present chapter's findings to a different task type, as well shedding further light on the benefits and challenges of Web-based delivery of translator training.

7 Small-Group Evaluation Tasks

The purpose of this chapter is to analyse two small-group evaluation tasks undertaken during the two phases of module delivery. The decision to implement a peer evaluation exercise may be explained in reference to Toury (1995), who is critical of the one-sided feedback a trainee usually receives, and encourages use of peer assessment in the translation classroom. Student feedback, he argues, may tend to be more intuitive, but it is also "likely to be more representative of society at large, and hence of the norms which actually govern translational behaviour in it" (1995: 256).

As well as investigating the effectiveness of the evaluation exercise in encouraging interaction and mutual discovery, this chapter will consider further the effects of task structure on the online group-learning experience and will seek to test the findings from the last three chapters as they apply to small-group evaluation tasks. Section 7.1 will examine conference transcripts relating to a group evaluation exercise (Task # $20^{(SG)}$) implemented with a cooperative structure and allocation of individual roles during the first delivery of module GE502. The findings from this analysis will be compared in Section 7.2 with levels of group learning which occurred when the same task type was implemented using an unstructured, collaborative approach during the second delivery of module GE502 (Task # $IX^{(SG)}$). As well as contrasting the two tasks with each other, comparisons will be drawn with the small-group and whole-class discussion-group tasks examined in the last two chapters.

7.1 Task # $20^{(SG)}$. Small-Group Evaluation Exercise

Task # $20^{(SG)}$ was conducted towards the end of the semester in 2003/4. For the purpose of the activity, the class was divided into five groups of three and two groups of two learners. Each group contained at least one native speaker of English and at least one native speaker of German, and private conferences, to which both the main module instructor and the teaching assistant had access, were set up to enable groups to share files and discuss the assignment. At the beginning of the task, three translated texts were posted to each group's private conference (groups consisting of two members received two texts). These translations had been produced by course participants working in a

discussion-group structure during the previous week, and translators' names and other identifying features had been removed. The group task involved the compilation of an evaluation report for each of the three translations according to the following criteria: good translation decisions; poor translation decisions; and the extent to which the translation was an appropriate target-language text.

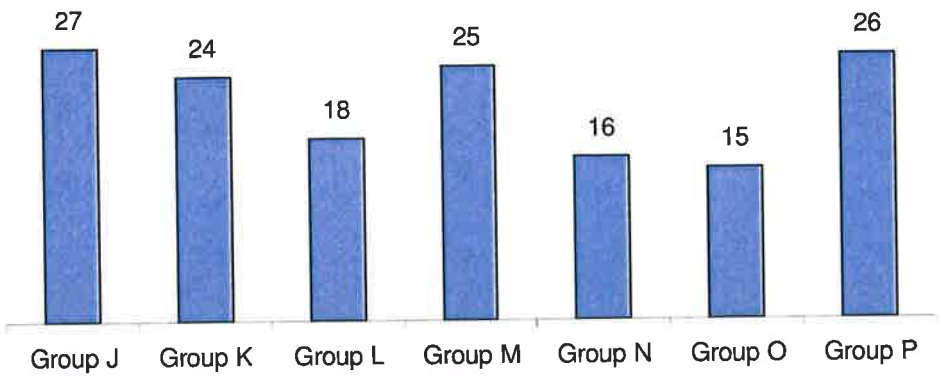
Groups were given 4 days to discuss via their private conference areas strengths and weaknesses of the translations. Following this, each student was required to compile an evaluation report for one text, ensuring that the comments posted by other members of his/her group were reflected in the report. On receipt of the evaluation reports, instructors ensured that they were passed on to the students who had produced the original translations. It may be said that Task # $20^{(SG)}$ had a cooperative-group structure with roles and responsibilities assigned to individual students. However, it also involved collaboration within groups who were required to discuss the merits and limitations of the translated texts in their conference areas prior to compiling the evaluation report. Like Task # $VIII^{(SG)}$, the group translation task examined in the last chapter, the structure of Task # $20^{(SG)}$ represented an attempt by the instructor to capitalise on the dual strengths of cooperative and collaborative approaches by combining the 'efficiency focus' of the former with the 'learning focus' of the latter.

In the analysis which follows, a distinction will be drawn between the different groups involved in Task # $20^{(SG)}$. Despite the imposition of a rigid structure by the instructors, it will emerge below that distinct approaches were taken by the various groups. By distinguishing between them throughout the analysis which follows, we will gain further insights into different types of group structure and their impact on the online group-learning experience.

7.1.1 Task # $20^{(SG)}$. Participation Levels per Group

The first measurement of online presence in Task # $20^{(SG)}$ was to count the number of messages per group. The results of this calculation are presented in Figure 7.1 below.

Figure 7.1 Task # 20(SG). Number of Messages per Group

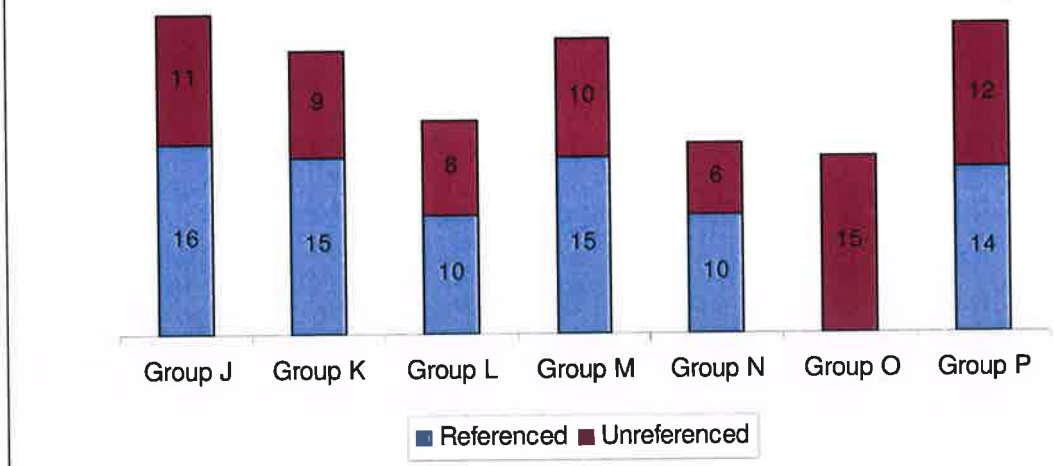


At an overall total of 151 messages, the quantity of postings in Task # 20(SG) was greater than for any other task during the first implementation of module GE502 (see Figure 4.3, page 105). The average number of postings per student and group was also much higher than for Task # 7b(SG), the pair translation conducted earlier the same semester (see Figure 6.1, page 163). The number of postings across the different groups also varied less than in Task # 7b(SG) – the lowest was 15, the highest 27. The only small-group task across the two module implementations to generate a greater number of postings per group was Task # VIII(SG), the group translation task discussed in the last chapter (see Section 6.3, page 187ff.), where levels of 33 and 52 messages per group were found.

7.1.2 Task # 20(SG). Intermessage Reference Analysis

When the 151 messages posted to the 7 group conferences were analysed in order to identify referenced and unreferenced messages, the results displayed in Figure 7.2 emerged:

Figure 7.2 Task # 20(SG). Referenced / Unreferenced Messages



The above Figure shows that referenced messages predominated in the small-group conferences, with the exception of Group O. Nevertheless, the number of referenced messages in the above Figure is relatively low when compared to the whole-class discussion-group target-text production tasks discussed in Chapter 4, where intermessage references of between 94.6% and 100% were recorded (see Figure 4.4, page 107). However, it will emerge in Section 7.1.3 below that a large number of postings in Task # 20(SG) were made by the instructors, and, as these related to design issues, did not generally require any response from students.

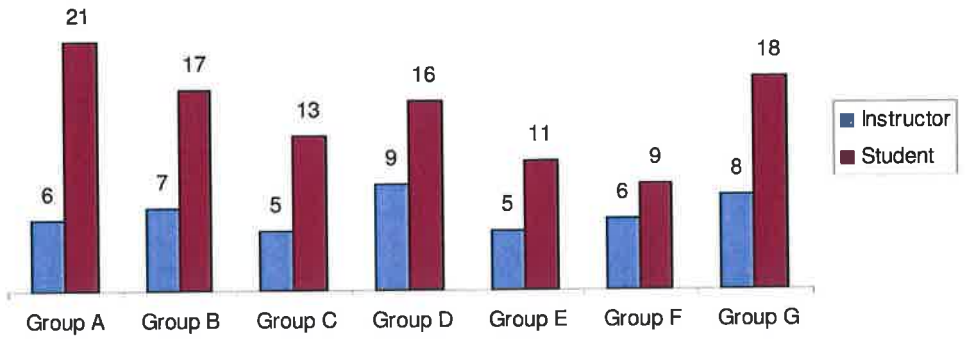
As seen in earlier chapters, a further step in Intermessage Reference Analysis is to identify clusters of messages. Table 7.1 displays the number of clusters and the size of the clusters per group conference. It shows that the largest cluster sizes were found in the conference areas of Groups J, K, M and P. Table 7.1 also shows an overall total of 27 clusters across the 151 messages, a larger number than for any other task in module GE502 (see Table 4.8, page 109).

Table 7.1 Task # 20(SG). Cluster Size						
Group	*Number of clusters*	*2 units*	*3 units*	*4 units*	*5 units*	*> 5 units*
Group J	4	0	1	2	1	0
Group K	5	2	1	1	1	0
Group L	4	2	2	0	0	0
Group M	5	2	1	2	0	0
Group N	4	2	2	0	0	0
Group O	0	0	0	0	0	0
Group P	5	2	2	1	0	0

7.1.3 Task # 20(SG). Teaching Presence

Of the 151 messages posted to the small-group conferences, 46 were sent by the module instructor and teaching assistant. This equates to a percentage of 30.5%. The following Figure reveals high levels of teaching presence across the seven small-group conferences.

Figure 7.3 Task # 20(SG). Number of Student/Instructor Postings per Group



While student postings predominate in each of the small-group conferences, at an overall percentage of 30.5%, this is amongst the highest concentrations of teaching presence recorded anywhere in online module GE502. When the recorded instances of teaching presence in Task # 20(SG) were coded using Anderson et al.'s (2001) scheme, it became apparent that most of the teacher postings related to 'design', i.e. setting the curriculum, providing instructions on how to complete the activity, giving guidelines on how to

participate in the online forums etc. The results of this analysis show 43/46 (or 93.5%) for 'design', 3/46 (or 6.5%) for 'direct instruction' and 0% for 'discourse facilitation'.

The high quantity of 'design' postings may be explained by the complexity of the task. Each group of three students received three separate postings from the teaching assistant, initiating threads for online discussions and uploading texts for evaluation. A further posting to each group detailed the allocation of responsibility for evaluation reports. In some cases, there was a delay in receiving translations from the previous assignment, and groups had to be informed of this via their conference areas. Finally, some groups requested additional clarification of the purpose of the assignment as illustrated in the following student posting:

> Hi, We were asked to comment on whether this was a suitable as a target text. Does this mean we just have to comment on whether we think it's a good text to have to translate?

None of the teacher postings was classified as 'discourse facilitation', while there were just three instances of 'direct instruction', where the two instructors interjected to diagnose and correct misconceptions.

It may be argued that the high levels of teaching presence in Task # $20^{(SG)}$ were due to the intricacy of the exercise, which required a large number of 'design' postings to direct and support the assignment. Task # $20^{(SG)}$ proved to be immensely time-consuming for the instructors to prepare and implement. Tasks falling to the instructors included: the removal of translators' names and other identifying features from 19 texts; the relabelling of these texts; the assignment of students to one of seven groups; the establishment of private online conferences for these groups; the allocation of responsibility to individual students for compiling reports; and, following completion of the exercise, the transmission of evaluation reports back to their original authors. It will be recalled from the Literature Review in Chapter 2 (Section 2.4.1) that cooperative tasks, by their nature, require tighter teacher control and hence greater teacher involvement than either collaborative or discussion-group tasks. This is borne out by the experience of Task # $20^{(SG)}$ where the researcher's fieldwork notes show a far greater volume of work than for any other activity in module GE502.

7.1.4 Task # 20$^{(SG)}$. Cognitive Postings

The next step taken to determine online learning in the group evaluation task was to categorise postings as either 'cognitive' or 'non-cognitive'. Of the 151 postings, 54 (35.8%) were coded as 'cognitive' and 97 (64.2%) as 'non-cognitive'. At 35.8%, cognitive presence across the seven small-group conferences is higher than in the pair translation tasks discussed in Chapter 6 (2% cognitive postings for Task # 7b$^{(SG)}$ and 20% for Task # IIIb$^{(SG)}$), but comparable to that found for Task # VIII$^{(SG)}$, the group translation task examined in Chapter 6, where a level of 32.9% was found. The comparatively high levels of cognitive postings in Tasks # 20$^{(SG)}$ and # VIII$^{(SG)}$ may have been a result of teacher input encouraging maximum levels of intragroup discussion (see page 199 above). At the same time, however, as with all small-group tasks examined in this and the last chapter, the proportion of cognitive postings is much lower than for the whole-class discussion-group tasks where levels of 82.6%, 92.1% and 88.5% cognitive postings were recorded for Tasks # 3$^{(TTP)}$, 19$^{(TTP)}$ and 21$^{(TTP)}$ respectively (see Figure 5.11, page 144). This supports the finding from Chapter 6 that in a cooperative-group structure, administrative-type postings predominate as group members use the discussion threads to decide how to divide and assign work between them. In a structure of this kind, cognitive tasks are carried out by group members working individually and in isolation.

A breakdown of cognitive postings to the small-group conferences in Task # 20$^{(SG)}$ using Garrison et al.'s (2001) hierarchical model of cognitive presence (see Table 3.1, page 75 and Appendix A at the end of the study) yields the following results: 11% 'triggering', 46.3% 'exploration' and 42.6% 'integration'. What is striking about these figures are the high values attributed to both 'exploration' and 'integration'. As noted in Chapter 5 (Section 5.1.3, page 146), a common finding in the research literature is that much of the interaction in online discussions tends to be at the lower levels of cognitive presence, i.e. 'triggering' and 'exploration'. We saw there that relatively high levels of 'integration' (24%) were recorded across cognitive postings in module GE502, and in particular for target-text production tasks where readings of between 32% and 40% 'integration' were found (see Figure 5.13, page 147). With 23 messages or 42.6% of cognitive messages classified as 'integration', it may be said that levels of cognitive presence were

comparatively high in Task # $20^{(SG)}$ (although it must be remembered that only 35.8% of the overall message count were classified as 'cognitive' – see last paragraph).

Only 6 messages were categorised as 'triggering' i.e. displaying a sense of puzzlement leading to a question being posed. The following is an example of one such posting:

> First sentence on page 2: "Continued training, which are the focal point of national programmes, account for 26,800 participants". Well, there is a mistake in this sentence and it should be "is the focal point", but it sounds very Germanised (did I create this word? ;o)) to me.
>
> Would it not be better to use active speech: "National programmes mainly focus on continued training and account for..."

25 messages were categorised as 'exploration'. In these, students shared their initial thoughts on the texts to be evaluated. The following is an example of a message categorised as 'exploration':

> I would guess that of the 3 texts, B was by a non-native speaker [. . .] I found a lot of TL expression mistakes, wrong usage of prepositions, bad lexical decisions etc. Texts A and C were good - although I found the translation of 'Maßnahmen' as 'measures' throughout text A a bad decision. Text C seemed to change the sentence structure a lot, and perhaps paraphrased some things

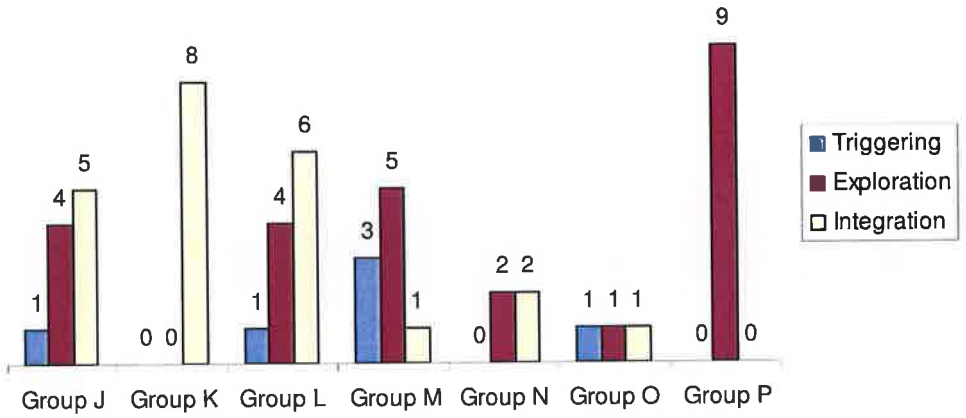
Finally, 23 messages were categorised as 'integration'. In these, there was evidence of students reading, reflecting and building on each others' postings. There follows below an example of a message classified as 'integration', which will be recognised as a response to the 'triggering' event quoted above:

> Hi! Only me! Yes, you're right that the verb should be singular here i.e is. The focal point sounds a little too contrived. A transposition of some sort would remedy this. Eg: a noun to adjective transposition: is central.... Your noun to verb transposition was a very good suggestion.

Further insights into cognitive activity levels may be achieved by examining the values for the categories 'triggering', 'exploration' and 'integration' in each of the seven group conferences in Task # $20^{(SG)}$. This information is displayed in Figure 7.4 below (a value of '0' indicates that no instance of that particular category was found). This Figure tells us that the highest levels of cognitive presence were found in Groups J, K and L which all recorded a predominance of postings at the 'integration' level. Further light will be shed

on differences in interaction levels in the discussion of 'non-cognitive' postings to the private group conferences which follows below.

Figure 7.4 Task # 20$^{(SG)}$. Cognitive Categories per Small-Group Conference



To summarise the findings thus far: the groups with the highest participation levels as measured by the number of messages per group conference were J, P, M and K in that order (Figure 7.1). The highest interactivity levels were found in Groups J, K and M, followed by Group P (Figure 7.2 and Table 7.1). The greatest concentration of cognitive presence was measured in Groups K, L and J, followed by Group M (Figure 7.4 above). By these three measures, Groups J and K had the highest levels of participation while at the same time emerging as most interactive and displaying the greatest degree of cognitive presence. In the analysis of 'non-cognitive' postings below, it will become apparent that these groups, in common with Group L, adopted a highly structured, cooperative approach to the group evaluation task, with clear demarcation of roles between group members. It will be argued there that the approach adopted by these groups also led to a more successful online group-learning experience than that experienced by groups adopting a less structured, collaborative procedure.

7.1.5 Task # 20$^{(SG)}$. 'Non-Cognitive' Postings

The 97 messages classified as 'non-cognitive' were coded using the four categories which emerged in Chapter 6 through the evaluation of similar postings in Task # 7b$^{(SG)}$:

'file sharing', 'deadlines', 'roles' and 'offline meetings'. The results of this analysis are presented in Table 7.2 below. This is followed by a discussion of 'non-cognitive' messages posted during Task # $20^{(SG)}$.

Table 7.2 Task # $20^{(SG)}$. 'Non-Cognitive' Postings to Small-Group Conferences

Category	*Indicator*	*No. of instances*
File sharing	File upload	52
	Request for file upload	1
	Acknowledgement of file upload	1
Deadlines	Timeline for subtasks	3
Roles	Task division	11
	Clarification of roles	14
Offline Meeting	Arranging / referring to offline meeting	4
Other	Short greetings, short agreements, social chat, technical questions	11
TOTAL		97

File Sharing/ Deadlines

The largest category of 'non-cognitive' messages was 'file sharing' – 54 instances out of a total of 97, equating to 55.7%. It may be said that in terms of 'non-cognitive' postings, groups largely used their private discussion spaces to upload and share files – mainly completed evaluation reports.

Only 3 postings related to the discussion of deadlines. In these, students communicated with each other regarding the completion of subtasks. It will be recalled from the task description in the introduction to Section 7.1 that deadlines had been specified by the module instructors. Hence, little further discussion of this issue was required.

Offline Meetings

It is interesting to note that, in contrast to the findings in Chapter 6, there were only 4 references to offline meetings – both from the same student who wanted to confirm that the group would *not*, in fact, meet face-to-face:

> Hi everyone,
>
> XX suggested a meeting today but after reading the assignment i dont think meeting one another is necessary as we have to discuss our findings with each other online anyway. I think that we should just stick to our online discussions. What do ye think?

It is clear from the levels of participation, the quality of cognitive postings and the absence of further references to face-to-face meetings across the seven group conferences, that the group project in Task # 20 $^{(SG)}$ was completed online. This supports the finding from Chapter 6 that where a cooperative-group structure with allocation of individual roles is implemented, the creation of a joint project can be achieved using only asynchronous text-based communication without recourse to offline meetings.

Discussion of Roles

The second most prominent 'non-cognitive' category in Task # 20$^{(SG)}$ was the 'discussion of roles' (25 instances or 25.7%). As we saw in the task description, responsibility for subtasks (i.e. compilation of evaluation reports) was allocated in advance to individual students by the module instructors. Thus, very little discussion of the division of labour occurred (3 postings). Most of the communication in this category related to clarification of roles, i.e. to how exactly the different group members should contribute to the final product. Groups J, K and L decided that the student responsible for compiling a particular evaluation report would also take responsibility for initiating discussion on that topic by posting his/her initial impressions of the text to be evaluated. This procedure is best summed up in the following student posting:

> I think generally we should each comment on all three texts, with each individual responsible for compiling the final report on ONE text, i.e. me, TEXT 1.
>
> I suggest the best way of doing this is: each of us posts the correction of his/her text to the forum, then we all read through the corrections and discuss them, and in the end the person who has made the initial corrections compiles the report.

This procedure meant that students assumed the role of both 'starter' and 'wrapper' for 'their' texts, i.e. they initiated and led discussion of the text ('starter') and summarised the group's comments when compiling the evaluation report ('wrapper'). (For the concepts of 'starter' and 'wrapper' in online discussions see Hara et al. (2000)). It is

interesting to note that groups adopting this procedure (J, K and L) also recorded the highest levels of cognitive presence (see Figure 7.4 above), with a greater percentage of messages to their conference areas classified as 'integration'. Other groups took a less structured approach and tended to have lower levels of cognitive presence. In Groups N, O and P, all participants first posted their opinions on all texts, and for each text one student compiled the comments in a report. The 'exploration' category predominates in these conferences, particularly in Groups O and P. There is little evidence of discussion and debate, and the postings read like a series of monologues. Group M represents a special case. It consisted of two participants, a native speaker of English and a native speaker of German. The text allocated to the German speaker was discussed online by the two participants in a series of exchanges typified by the following:

Student A (Native speaker of German):

Hi XX,

can you say "13000 participants were AFFECTED by ...measures"
for "13000 Teilnehmer wurden mit ...massnahmen ERREICHT"?

danke

Student B (Native speaker of English):

Subject: re: text b
'affected ' sounds good. 'Reached' would also be a possibility.

Student A (Native speaker of German):

Subject: re: text b
another question:

what about "early retirement" for "vorzeitige Austritte"????

Student B (Native speaker of English):

Subject: re: text b
Don't think so. retirement is what you do when you're 65.
Premature withdrawal??

There is no evidence in the above exchange of negotiation of meaning between participants. Student B, a native speaker of English, assumes the role of tutor or 'expert', answering the questions posed by Student A. Even more noticeable in the transcript of Group M's private conference is the absence of discussion on the text allocated to the

native speaker of English. The result was an evaluation report which was unduly harsh, did not comply with the specified criteria and which led the instructors to request that Group M redraft their evaluation report using more diplomatic language (see also Section 7.2.6 below).

7.1.6 Student Perceptions of Group Evaluation Task # 20$^{(SG)}$

Unlike the pair translation exercise carried out earlier in the same semester (Task # 7b$^{(SG)}$, discussed in Chapter 6), participants were not asked to reflect on the experience immediately following the group evaluation task. However, as part of the end-of-semester survey (see Appendix K), students were invited in an open-ended question to comment on their perceptions of Task # 20$^{(SG)}$. A mixture of positive and negative feedback was received.

Only one comment was made about interaction within the small groups: "I am not really convinced that the fact of preparing it as a group work was really useful. There was not a lot of exchange." This remark supports the finding that a cooperative-group structure does not lead to high levels of cognitive interaction (although we have found that Task # 20$^{(SG)}$, while comparing less favourably with the whole-class discussion-group target-text production tasks, scored higher on most measurements of online group learning than the pair translation tasks reviewed in Chapter 6.)

Five students stated that they did not feel qualified to comment on their peers' translations, as expressed by the following posting:

> However, I did find it quite difficult to evaluate other people's work as I didn't feel qualified to do so. I think it would have been easier to assess the work of someone from a lower year e.g. a 3rd year undergrad?

In this context, four students remarked that they would have preferred to have received a 'fair copy' with which to compare their peers' translations in order to avoid making inaccurate and unhelpful criticisms. Students felt they may have been overly negative in the feedback they provided, while the following participant, who received Group M's

evaluation report, albeit in its edited form (see end of Section 7.1.5 above), was clearly upset by the disproportionately harsh criticism she had received:

> I did think that the evaluation I got could have a bit less negative though, I found it quite dispiriting to be told that a machine translation might have 'gisted' just as well!

On a positive note, nine students made comments which may be categorised under 'reflective awareness' or 'sensitisation', a concept used in the following posting: "it was a good exercise in sensitising us to the mistakes we all potentially make". Students found that examining the translation decisions of others helped them to reflect on and see in a more objective light their own approach to the translation task: "it made us think slightly differently about the text we had translated: we had to change our roles from TT producer to TT evaluator". The task had also heightened their awareness of multiple perspectives and multiple translation solutions ("I also found that there was a lot of variety to the texts and that no one translation is correct"). Furthermore, it had made students "more aware of potential errors and the need to proofread".

7.1.7 Concluding Remarks on Task # 20$^{(SG)}$

Our analysis of Task # 20$^{(SG)}$ has shown that the quantity of postings for the small-group evaluation task was greater than for any other task during the first implementation of module GE502. There were also more message clusters across the 151 messages than for any other activity. In a posting to her group's private discussion conference, one student made the following observation: "I have to say I thought this group assignment worked a lot better than the last!" This comment is supported by the analysis of the conference transcripts. Not only were participation levels higher than in Task # 7b$^{(SG)}$, there were also substantially more cognitive postings, with high levels of cognitive presence recorded in a majority of the group conferences. In addition, all discussion of the evaluation reports appears to have taken place online. This supports the conclusion from Chapter 6 that, where a joint product is required from a student group communicating via asynchronous text-based discussion conferences, the allocation of subdivisions of the task to individual students in a cooperative-learning structure will enhance group functioning and allow all group interaction to occur online. Moreover, our

analysis of Task # $20^{(SG)}$ has shown that the groups which scored highest in terms of cognitive presence in the conference transcripts were those in which students took individual ownership of evaluation reports from an early stage by initiating and steering discussions of that text.

Our analysis of Task # $20^{(SG)}$ has also revealed significantly lower proportions of cognitive postings than for the whole-class discussion-group tasks, particularly the target-text production tasks implemented with a discussion-group structure, where levels of 82.6%, 92.1% and 88.5% cognitive postings were recorded (see Chapter 5). This also supports a finding from Chapter 6 that whereas a cooperative-group structure is more effective than a collaborative structure in enabling a joint project to be created using asynchronous text-based communication, such communication tends to be dominated by administrative postings and does not display the same levels of cognitive postings as discussion-group tasks.

A further outcome of the analysis of the conference transcripts for Task # $20^{(SG)}$ was the high concentration of teaching presence, particularly in the 'design' category. As such, the finding supports the literature on group structure cited in Chapter 2 (Section 2.4.3, page 41ff.) which shows that cooperative tasks, by their nature, require tighter teacher control and hence greater teacher involvement than either collaborative or discussion-group tasks. From the instructors' perspective, Task # $20^{(SG)}$ was difficult and time-consuming to design and execute. This finding would influence the approach taken to the design of the group evaluation task in the academic year 2004/5.

7.2 Task # IX$^{(SG)}$. Small-Group Evaluation Exercise

In the academic year 2004/5, a group evaluation exercise was again conducted towards the end of the semester (Week 10). As in the first iteration of the task, groups were given 4 days to discuss the translations via private conference areas. The same criteria were specified for production of evaluation reports: good translation decisions; poor translation decisions; and the extent to which the translations were appropriate target-language texts. There were a number of changes from the first phase of module delivery. Only two groups comprising four students apiece undertook the task (these groups – Groups S and

T – remained unchanged from Task # VIII$^{(SG)}$, the group translation task discussed in Chapter 6, Section 6.3). Each group received only one text for evaluation purposes and was required to produce only one report between them. The texts to be evaluated were group translations produced during the previous week – Group S was sent Group T's translation and vice versa. Finally, there was no allocation of responsibility to individual students, and groups were asked to use their private discussion areas to agree procedures and deadlines for discussion of the text and compilation of reports.

The modifications in task design outlined in the last paragraph were undertaken for a number of reasons. From a teaching perspective, it was hoped that by asking each group to evaluate one text only, the task would be easier to organise and would create fewer logistical challenges for the instructors. From a research perspective, the modifications were implemented in order to test whether the relatively high levels of cognitive presence recorded in the first implementation of the group evaluation task would be reproduced when there was no individual allocation of responsibility by the instructor.

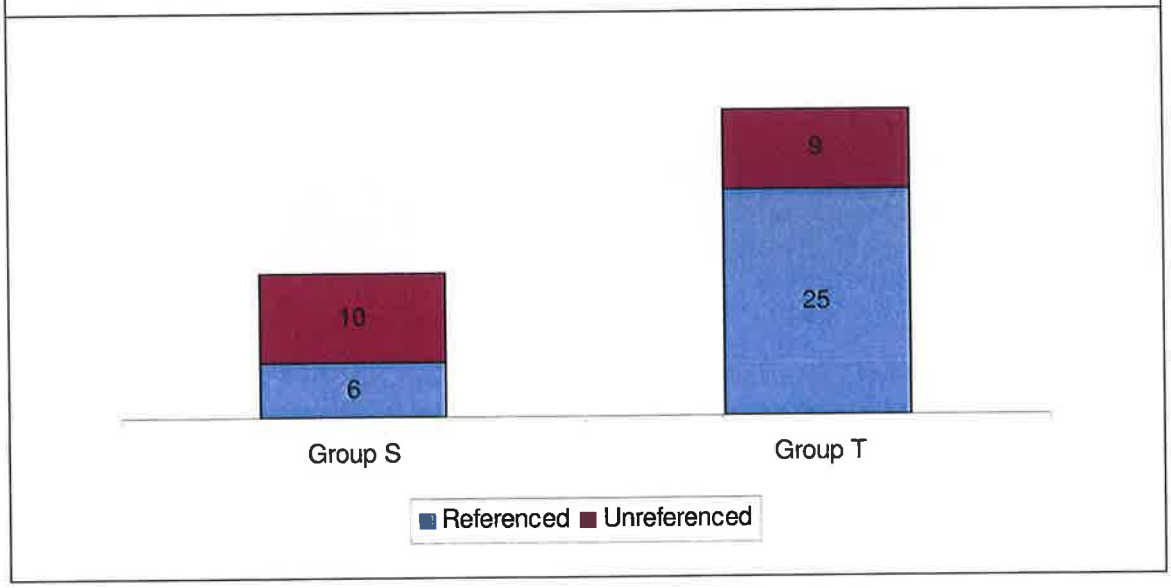
7.2.1 Task # IX$^{(SG)}$. Participation Levels per Group

Participation levels were first measured by counting the number of messages per group. The results of this measurement revealed that Group T produced over twice as many messages as Group S (34 messages as opposed to 16). In Task # 20$^{(SG)}$, the number of messages posted per group (see Figure 7.1, page 200) ranged from a minimum of 15 messages to a maximum of 27. Thus, the average number of postings per group was somewhat higher in the second implementation of the group evaluation task, although it must be remembered that groups now consisted of four members as opposed to three for the first implementation. When the average number of postings per student is calculated for the group evaluation task across the two deliveries, the results are almost identical: an average of 5.5 messages per student for Task # 20$^{(SG)}$ and an average of 5.6 messages for Task # IX$^{(SG)}$. Thus, participation levels were not noticeably affected by the modification in task design.

7.2.2 Task # IX$^{(SG)}$. Intermessage Reference Analysis

When Levin et al's (1990) Intermessage Reference Analysis technique was used to identify referenced and unreferenced messages across the two group conferences, the results displayed in Figure 7.5 emerged:

Figure 7.5 Task # IX$^{(SG)}$. Referenced / Unreferenced Messages



This Figure shows that in Group S, a majority of messages (62.5%) were unreferenced, while in Group T, a majority of messages (73.5%) were either referenced by, or referred to, other postings. Analysis of cluster size (see Table 7.3 below) demonstrates, furthermore, that while all intermessage references in Group S's conference area consisted of clusters of two messages only, the intermessage references in Group T's private conference consisted of clusters ranging in size from 2 messages to over five. Thus, on the basis of Intermessage Reference Analysis, Group T may be considered to display much higher levels of interactivity than Group S.

Table 7.3 Task # IX(SG). Cluster Size						
Group #	*Number of clusters*	*2 units*	*3 units*	*4 units*	*5 units*	*> 5 units*
Group S	3	3	0	0	0	0
Group T	8	4	1		2	1

When compared to interactivity levels for the evaluation task in Task # $20^{(SG)}$ (see Figure 7.2, page 201 and Table 7.1, page 202), it may be said that Group S displayed lower levels of interactivity than any group in the earlier phase, with the exception of Group F which had no intermessage references. At the same time, Group T's conference area had more and bigger clusters, and less unreferenced messages as a percentage of group postings, than any group for the equivalent task in 2003/4. Taken as a whole, the Intermessage Reference Analysis does not point to any significant divergence arising from the modifications in task structure in the second iteration of the group evaluation task.

7.2.3 Task # $IX^{(SG)}$. Teaching Presence

5 messages across the two conferences were classified as 'teaching'; 3 in Group S's discussion area and 2 in Group T's. All five messages were categorised as 'design', i.e. they contained information about how to complete the assignment. In this respect, the second iteration of the group translation task reflects findings from the first, where a clear majority of teacher contributions related to 'design' issues. However, as a percentage of overall postings, the level of teaching presence was much lower for Task # $IX^{(SG)}$ at 10% of postings as opposed to 30.5% for the same activity in 2003/4. This was a direct result of the modification in design. Task organisation was more straightforward as each group received only one text to evaluate. The module instructors did not allocate responsibility to individual students and only two evaluation reports had to be relayed back to the original translators. At 10%, levels of teaching presence were also similar to those found across the discussion-group tasks analysed in Chapter 5 (see Figure 5.5, page 135).

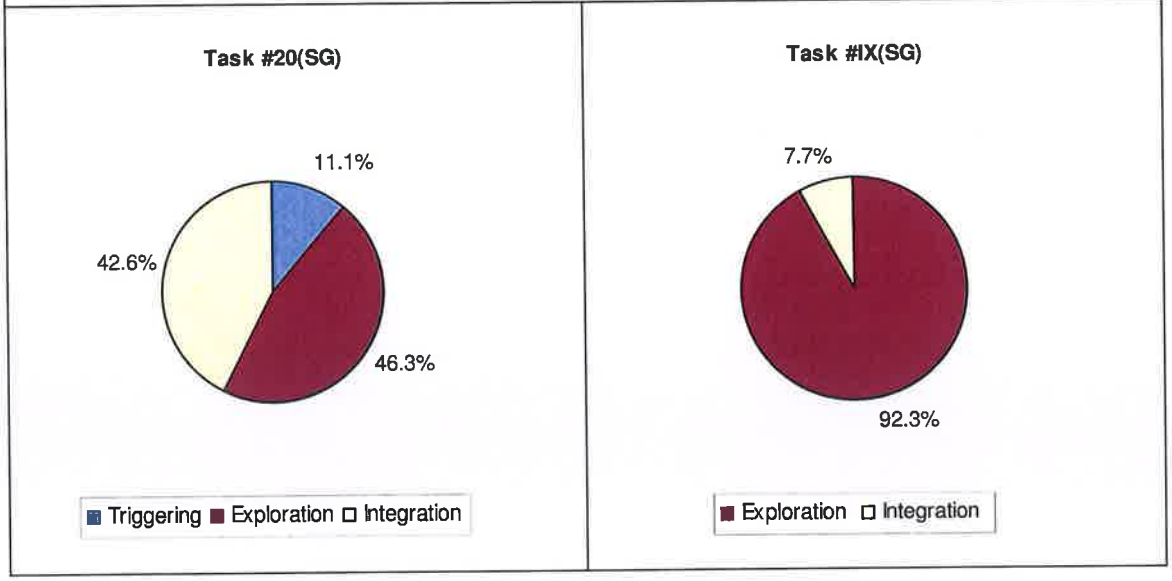
7.2.4 Task # IX$^{(SG)}$. Cognitive Postings

The 50 messages posted to the two group conferences were categorised according to whether the content was 'cognitive' i.e. recording the reasoning, negotiation and decision-making processes that lead to the construction of meaning, or 'non-cognitive', i.e. focussing on task management, technical issues or social interaction. 12 messages were classified as 'cognitive', and 38 as 'non-cognitive'. This equates to 24% of overall postings for the 'cognitive' category and 76% for the 'non-cognitive'. This compares to 35.8% classified as 'cognitive' and 64.2% as 'non-cognitive' for Task # 20$^{(SG)}$, and represents a small but significant departure from the first implementation of the same activity, suggesting that postings were more focussed on the learning content of the assignment in Task # 20$^{(SG)}$. The question arises at this point whether this discrepancy derives from the alteration in task design or whether it can be accounted for by other factors. This will be addressed further below.

When Garrison et al.'s (2001) hierarchical model of cognitive presence was used to categorise the 12 cognitive postings to the two small-group conferences in Task # IX$^{(SG)}$, 11 were classified as 'exploration' and one as 'integration' (4 'exploration' and 1 'integration' in Group S and 7 'exploration' in Group T). Thus, not only was there a lower overall percentage of cognitive messages in comparison to the same task in the first module implementation, the *type* of cognitive presence in those contributions was also at a significantly lower level.

Figure 7.6 below compares types of cognitive presence during the two implementations of the group evaluation task. This shows considerably lower levels of 'integration' for Task # IX$^{(SG)}$ (7.7%) than for Task # 20$^{(SG)}$ (42.6%). The absence of 'triggering' events in Task # IX$^{(SG)}$ is also conspicuous. An overwhelming majority (92.3%) of cognitive postings in the second implementation of the group evaluation task were of an exploratory nature, with students exchanging information but failing to build on each others' ideas to construct meaning.

Figure 7.6 Cog. Presence Categories, Group Evaluation Task 2003/4 and 2004/5



The data on cognitive postings presented in this section reveals that while participation levels and intermessage references did not depart significantly in Task # $IX^{(SG)}$ from the first implementation of the group evaluation task, there were a number of important differences between the 2 implementations. While Group T in particular displayed slightly higher participation levels and a higher concentration of intermessage references when compared to groups in Task # $20^{(SG)}$, an analysis of the content of these messages reveals that a) there were fewer cognitive postings as a proportion of overall contributions and b) messages classified as 'cognitive' predominantly belonged to the 'exploration' category and hence displayed lower levels of cognitive presence. On the basis of these results, it may be argued that the group evaluation exercise in 2004/5 was not as effective in promoting online negotiation of meaning as the equivalent activity in 2003/4. The discussion of 'non-cognitive' postings below supports the hypothesis that this was due to the modification in task structure and the absence of teacher-imposed allocation of individual responsibility for subdivisions of the learning product in Task # $IX^{(SG)}$.

7.2.5 Task # $IX^{(SG)}$. 'Non-Cognitive' Postings

As noted above, a majority of messages to the small-group conferences in Task # $IX^{(SG)}$ were classified as 'non-cognitive'. The four categories identified earlier in the study to

label 'non-cognitive' postings were used again to classify these messages. The results of this classification are displayed in the following Table. Whereas most 'non-cognitive' messages were found to contain only one category, three postings were classified as displaying two – hence the presence of 41 categories across 38 messages.

Table 7.4 Task # IX$^{(SG)}$. 'Non-Cognitive' Postings to Small-Group Conferences

Category	*Indicator*	*No. of instances*
File sharing	File upload	11
	Request for file upload	0
	Acknowledgement of file upload	0
Deadlines	Timeline for subtasks	9
Roles	Task division	10
	Clarification of roles	4
Offline Meeting	Arranging / referring to offline meeting	0
Other	Short greetings, short agreements, social chat, technical questions	7
TOTAL		41

File Sharing

There were eleven instances of 'file sharing' across the two group conferences. At 26.8%, this represents a much lower proportion of 'non-cognitive' postings than for the same category in Task # 20$^{(SG)}$ where a level of 55.7% was recorded for 'file sharing'. However, it must be recalled that the group evaluation task in 2003/4 involved the production of 19 evaluation reports, all of which were uploaded to the private group conferences. This accounts for the high levels of file sharing in Task # 20$^{(SG)}$ as opposed to Task # IX$^{(SG)}$, when only two evaluation reports were produced.

Deadlines

There were nine references to deadlines (22% of 'non-cognitive' postings) across the two group conferences. This compares to 3 messages or only 3% of 'non-cognitive' postings for the same activity in 2003/4. In Task # IX$^{(SG)}$, the creation of a group product without teacher-imposed role allocation generated more debate within the groups to agree a cut-off point for the discussion preceding compilation of the evaluation report. However,

only Group T decided on a timeframe in good time. The following suggestion was posted on Wednesday (Day 2) at 10 a.m. to Group T's discussion area:

> We also need to set a deadline for posting our opinions on it all. Should it be Thurs 17:00 seeing that the report has to be submitted by 12 noon on Fri?

This timeframe was altered by the same student somewhat later the same day:

> I think I/we overlooked the fact that if we post our opinions by 17:00 Thursday, it doesn't give us much time to group them together, write our bit, then pass to [Student X] for editing in time for her to post the final version by 12 noon on Friday. We should probably post our opinions asap so that, ideally, [Student X] has the written sections by 17:00 tomorrow. What do you think?

In the event, all group members posted their opinions by Thursday lunchtime, leaving adequate time to finalise the report.

Group S made only two references to deadlines, both in the 24 hours before the assignment was due. The following posting was made on Thursday afternoon:

> since the report is due at 12, we need to decide who's mailing and posting the final version so that we don't all send our own versions.

The upshot was that Group S did not leave enough time to finalise the report via the discussion threads and opted instead to meet offline the morning the assignment was due (see 'Offline Meetings' below).

Discussion of Roles

The largest category of 'non-cognitive' postings related to task division and clarification of roles (14 postings or 34.1% of 'non-cognitive' postings). An analysis of these messages reveals how groups went about the evaluation task, and offers some insights into the effectiveness of the respective approaches.

Group T adopted a structured approach to task completion by defining subtasks and agreeing to allocate these to individual participants. One student proposed the following:

> As a first step, I was going to suggest that we all make a posting each with our points according to the evaluation criteria. We can then group them together and summarise.

> Also, how about dividing the compilation of the report into the following tasks:
>
> 1. (writing of) good translation decisions 2. (writing of) poor translation decisions 3. (writing of) extent to which translation is appropriate 4. putting it all together and overall editing.

In accordance with the above posting, in the early stages of the evaluation task, Group T adopted a collaborative procedure, whereby all members undertook to analyse the text in parallel with one another. When it came to compiling the report, the group took the cooperative approach suggested in the above posting with each student assuming responsibility for one aspect of the final report. This was to prove a more successful approach than that adopted by Group S, both in terms of completing the task online and producing a report that adhered to the criteria specified by the module instructors.

Members of Group S agreed to the approach put forward by one group member in the following message:

> One idea I had was for us all to read through and analyze Group T's translation and then post those points we felt were important. We could then use these points and any other insights that arise through the discussion thread as the basis for our report.

As proposed in this message, Group S adopted a wholly collaborative procedure for the group evaluation exercise, with students working simultaneously and in parallel on all aspects of the task. Unlike Group T, there was no allocation of responsibility to individual students. By Day 3 of the activity, three out of the four students in Group S had posted their comments, while one had yet to make any contribution. The following message was sent that day by the student who made the original suggestion regarding task division and displays uncertainty within the group regarding production of the joint report:

> since the report we have to write is due tomorrow and we still haven't decided who will write what part (or indeed who will compile it!), I think we need to come up with a plan.
> [. . .]
> we need to decide who's mailing and posting the final version so that we don't all send our own versions.

The same student proposed the following:

> I can take all the comments posted so far and write them up tonight in a word document, but we still haven't come up with any major positives!!

As it turned out, the approach adopted by Group S had a number of drawbacks, all of which were highlighted in the contributions cited above. The group failed to agree in good time a strategy for compiling the report, and ultimately met in person to finalise the report (see 'Offline Meetings' below). Moreover, they produced a report that, in the words of the student just quoted, did not include "any major positives". This point will be discussed further in Section 7.2.6 below.

Offline Meetings

No messages were classified as explicitly discussing offline meetings. While Group T appears to have conducted all assignment-related activity within the virtual learning environment, it is clear from the following contribution, and the absence of an online record of the work alluded to, that Group S met in person. This message was sent to the fourth member of Group S, who by Friday had still had no involvement in the group exercise:

> Attached is the third version of our Evaluation of Group T's translation. [We] have worked on it this morning and this is our version. Will you have a look at it and see what you think. If you're happy, will you send it on to [Instructors' names]?

It may be argued that Group T managed to complete the joint project online because they adopted a cooperative approach, with each student assuming responsibility for one aspect of the final report. This is supported by our findings from the analysis of Task # $20^{(SG)}$ in the present chapter and of Task # $VIII^{(SG)}$, the small-group translation task discussed in the last chapter. The collaborative approach taken by Group S, on the other hand, meant that due to the difficulty of negotiating a consensus online, the group found it necessary to meet in person in order to finalise the report. In this respect, Group S may be compared to the small groups in the pair translation tasks discussed in Chapter 6 (Task # $7b^{(SG)}$ and Task # $IIIb^{(SG)}$) where we found that a collaborative-group structure led to the failure of online communication and a decision by the groups to meet or communicate offline.

7.2.6 Difficulties Associated with Peer Evaluation

When the 'non-cognitive' postings for Task # $IX^{(SG)}$ were classified, a significant number fell into the 'other' category (7 messages, or 17.1 %). Some of these were short messages of agreement or acknowledgement such as the following:

> Hi XX,
>
> Looks good!
>
> YY

However, there was also an exchange in Group T's conference which merits closer analysis as it sheds some light on the risks of peer evaluation. We noted above (page 221) that Group S produced an evaluation report which, in their own words, did not include "any major positives". Furthermore, it failed to adhere to the criteria specified by the module instructors, focussing almost exclusively on 'poor translation decisions'. Group T's reaction to the evaluation they received is reflected in the following exchange:

> Student A:
>
> It does come across as being rather direct.
>
> Student B:
>
> I completely agree with you - it doesn't sound encouraging at all.
>
> Student C:
>
> I think it could (and should) have been written a little more diplomatically, after all we are none of us experts at this. Also, it seems to focus on the poor translation decisions. In our evaluation, we tried to give a balanced view, in order to be fair and to avoid precisely this situation.
>
> Whilst I have no problem in accepting constructive criticism, I am a little disappointed by the manner in which it has been delivered.

A review of the evaluation report compiled by Group S corroborates these objections. The following headings were used to structure the report: 'Layout', 'Direct Translations', 'Mistranslations', 'Terminology', 'Other Comments', 'Good Points' and 'Overall Impressions'. With the exception of 'Good Points', which comprised only 5% of the document, the evaluation report consisted of an inventory of shortcomings and criticisms. It will also be recalled from Section 7.1.5 of the present chapter that one of the reports

produced by Group M during the group evaluation exercise in Task # $20^{(SG)}$ was also considered by the instructors to be unduly harsh (see page 210 above).

There are a number of possible explanations for this. It was apparent in the analysis of Task # $IX^{(SG)}$ above that Group S took an unstructured approach to discussing and compiling the evaluation report. Unlike Group T, they did not allocate individual responsibility for the completion of subtasks and they did not effectively manage the time available for task completion. Similarly, the relevant evaluation report produced by Group M in Task # $20^{(SG)}$ was created without adequate online discussion and consultation. In both cases, poor task management appears to have been a factor in the creation of a substandard learning product.

A further explanation may be found in Mossop's book on *Revising and Editing for Translators* (2001). In this, he cautions against undergraduates engaging in translation revision. Mossop distinguishes between editing, i.e. correcting and improving faulty texts, and revision, i.e. the same activity applied to draft translation, and recommends that undergraduates should only engage in the former:

> Students are certainly able to edit texts which happen to be translations, correcting grammar errors, tidying up awkward sentences, and so on. But as soon as they start comparing such texts to the source texts, they find themselves at sea. They tend to retranslate, that is, they substitute their own translations. They focus on minutiae while overlooking serious errors. They make vast numbers of unnecessary changes. (2001 :xi)

While the students on module GE502 were postgraduates, and were therefore considered capable of completing a task of this kind, it may nevertheless be the case that some lacked the experience to know when to criticise and when to leave unchanged.

A final consideration relates to more general risks of peer evaluation. Insofar as students were assuming a role typically associated with teaching, i.e. providing feedback, the assignment entailed an element of peer tutoring. Referring to the drawbacks of peer tutoring amongst primary school children, Damon and Phelps state that "the peer tutee possesses [. . .] little of the adult teacher's instructional skills" (1989: 11). Amongst the instructional skills possessed by an experienced teacher is the ability to provide feedback

that is positive and constructive. This skill was clearly lacking in some of the student evaluators in module GE502.

Finally, the difficulties experienced here with the group evaluation tasks may relate to one of the drawbacks of text-based communication: the absence of body language and facial expressions that makes criticism more difficult to express and receive. Commenting on the group evaluation task, this concern is expressed by the following student who stated that she found it "`hard to know exactly how to phrase what I felt were their errors`".

7.2.7 Concluding Remarks on Task # IX$^{(SG)}$

The analysis of Task # IX$^{(SG)}$ shows that there was no significant departure from Task # 20$^{(SG)}$ in terms of participation levels and intermessage references. However, there was a smaller proportion of cognitive vs. 'non-cognitive' postings in Task # IX$^{(SG)}$, and levels of cognitive presence were also lower, with a majority of cognitive messages classified as 'exploration'.

As a percentage of overall postings, the level of teaching presence was much lower for Task # IX$^{(SG)}$ at 10% of postings as opposed to 30.5% for the same activity in 2003/4. Thus, while Task # IX$^{(SG)}$ may not have been as effective in terms of group learning as Task # 20$^{(SG)}$, it was easier for the instructors to design and implement. At 10%, levels of teaching presence are also comparable to those found across the discussion-group tasks analysed in Chapter 5 (see Figure 5.5, page 135).

Differences between the two iterations of the group evaluation exercise may be accounted for in terms of modification in task design. The analysis of Task # IX$^{(SG)}$ shows that when a group product is required and when there is no allocation of individual responsibility for subsections of the task, online discussion focuses more on task management than on cognitive matters. Furthermore, it has been shown that groups are more likely to revert to offline communication in the case of a collaborative-group structure with no task specialisation (see Group S in Task # IX$^{(SG)}$). We may conclude that, while the exercise was easier to design and implement in 2004/5, it was not as effective in promoting online group learning as the equivalent activity in 2003/4.

7.3 Chapter 7: Concluding Remarks

Chapter 7 has confirmed the findings from previous chapters with regard to the impact of group structure on interaction and mutual discovery in the online translation classroom. We have found that a *cooperative-group* structure, with strict imposition of roles by the course instructor, enhances the ability of groups to complete a joint project online using text-based asynchronous communication. While a structure of this kind increases the *efficiency* of group functioning, mutual *learning* is limited by the fact that group interaction focuses largely on administrative aspects of the task. Cooperative groups displayed much lower cognitive levels than *discussion groups* analysed in Chapter 5, although we have found that the encouragement of intragroup discussion resulted in higher levels of cognitive presence than for the pair translation tasks analysed in Chapter 6. With regard to a *collaborative-group* structure, finally, our finding from Chapter 6 was confirmed that such a structure neither enhances the efficiency of the learning process, nor does it allow the joint construction of knowledge to occur online.

This chapter has also shown up some of the difficulties associated with Web-based learning and instruction. From the instructor's perspective, imposing a cooperative-group structure can be extremely demanding and time-consuming. As a result, the temptation is to allow small groups engaged in the creation of a group product to select their own procedures. However, this approach has been shown in this and the last chapters to be less effective in promoting efficiency and online group learning. From the students' perspective, analysis of the group evaluation tasks has shown that criticism may be more difficult to express and to take when it is provided online in written format, particularly by one's peers, who are unlikely to be equipped with the tact and diplomacy of an experienced teacher.

8 Conclusions

The present study has drawn on the fields of translation didactics and online learning to demonstrate how the strengths of a virtual learning environment can be harnessed to provide a learning experience based on fundamental principles of functionalism and social constructivism in translator training. It has been shown that Nord's (2003) guidelines for the development of functionalist text competence may be applied equally in a Web-based classroom. These include source-text analysis prior to translation activity; provision of a translation brief containing information about target-text function(s); use of authentic texts for translation purposes; consultation and analysis of 'real-world' parallel texts; and deployment of relevant aids and tools including glossaries, dictionaries and Internet search engines. In the last two respects – use of parallel texts and exposure to relevant aids and tools – it may be argued that online translator training represents an enhancement of the learning experience when compared to its face-to-face equivalent. A wide variety of Internet resources including parallel texts, online glossaries and search engines are at the user's fingertips and may be effortlessly integrated into the virtual learning environment.

The study has proposed a number of task types for the online translation classroom. In all, five categories were presented: 1. reflection tasks intended to raise learners' awareness of problematic aspects of the learning and translation processes; 2. translation subtasks where the translation project is broken down by the module instructor into subtasks involving the search for parallel texts and production of glossaries; 3. translation-related tasks such as collocations research and production of summaries; 4. target-text production tasks where students are required to undertake translation assignments working individually but in parallel on the same activities; and 5. small-group tasks, including both translation and evaluation exercises, where groups ranging in size from 2 to 4 students create a group product using either a collaborative or cooperative approach.

Key social constructivist principles developed for face-to-face instruction were shown in the study to be equally applicable to the virtual translation classroom. Online students, like their face-to-face counterparts, may be asked to undertake authentic translation tasks and projects. Indeed, authenticity is enhanced by carrying out all translation-related

activity from receipt of the source text through terminological and subject-area research to delivery of the finished product via email and the Internet, key tools in the professional translation workplace. The teacher's role in the scenario described in the study is to scaffold the learning experience in social constructivist fashion, acting as guide, catalyst and model of good practice.

With regard to the social constructivist principle of group learning, it has been illustrated that high levels of online interaction can be achieved using asynchronous, text-based many-to-many conferencing software. It has also been shown that such communication is more likely to be successful when students are required to converse with one another through stipulation of a minimum postings requirement and the tying of online activity to a final module grade. It was found furthermore that the literature on online learning emphasises the importance of providing students with participation guidelines giving information about minimum usage, learning principles, instructor role and assessment.

The rest of this chapter summarises findings relating to the research questions presented in Chapter 3 (see pages 53/54) under the following headings: the impact of task structure on the development of group learning in an online translation classroom; methodologies for investigating group learning in an online environment; and the advantages and disadvantages of Web-based delivery of translator training.

8.1 The Impact of Task Structure on the Development of Group Learning in an Online Translation Classroom

In the economic translation module which formed the focus of this study, three types of group-learning approach were implemented: whole-class discussion-group tasks where students provided support to one another while working simultaneously on individual learning products; small-group cooperative exercises involving task specialisation and the allocation of subtasks to individual learners, culminating in the creation of a group artefact; and small-group collaborative tasks where group members worked together on all aspects of the task, also leading to the creation of a group product. It has been shown that arguments may be put forward for all three group-learning structures, and for the creation of both group and individual products in the context of translator training. A

cooperative approach, with task specialisation and the production of a group translation, mirrors what happens in the translation workplace, where teams of translators work towards the creation of a collective target text. Collaborative and discussion-group approaches offer learning advantages with the sharing of multiple perspectives and negotiation of translation solutions.

When it comes to the implementation of group-learning techniques in the online environment, we found little to help us in the academic literature, which has, with some notable exceptions (e.g. contributions in Roberts, ed. 2004), failed to examine the comparative advantages and disadvantages of such approaches in the virtual classroom. The results of the present study go some way towards addressing this shortcoming. We found that the most effective approach to group learning in an online translation classroom is the discussion-group structure where students interact during the process of target-text production but ultimately submit the learning product on an individual basis. This structure was shown to yield more online interaction, a greater ratio of cognitive to 'organisational' postings and higher levels of cognitive presence than any other task type in the online module. It was also considered by students themselves to be the most effective group-learning approach.

By comparison, small-group activities involving the creation of a group product were found to produce lower levels of online interaction. A collaborative approach to the production of a group artefact, not involving the allocation of individual responsibilities for subdivisions of the overall task, was shown to be the least successful group-learning method in the online module. When this structure was implemented, 'organisational' postings dominated online activity and groups found it impossible to reach consensus online, invariably opting to meet in person to finalise the group product. Small-group activity was more successful when organised on a cooperative basis, with task subdivision and allocation of subtasks. Groups managed to conduct all their business online and to interact in a way that mirrors teamwork in the translation workplace. However, it was also shown that allocation of individual responsibility for subdivisions of a larger task in a cooperative approach to group learning does not promote joint construction of knowledge, as students tend to choose an 'efficiency focus' over a

'learning' focus, by completing individual subsections without the need or benefit of peer interaction. These results support findings in the research literature cited in Chapter 2 (Section 2.4.5). There we found that online learners prefer to have individual responsibility and accountability for completing the learning product (see studies by Henri and Rigault 1996, Kitchen and McDougall 1999, Dirkx and Smith 2004 and Graham and Misanchuk 2004). Such accountability can be ensured by allocating individual responsibility for part of the learning task in a cooperative-group structure or for the entire learning product in a discussion-group approach.

We may conclude this section by stating that Kiraly's assertion, cited on page 26/27 above, that groups of students need to meet physically and "discuss their work in face-to-face dialogue" (2000: 128) applies only in the case of collaborative small-group tasks where consensus on the final product is required. Discussion groups and cooperative groups, on the other hand, have been shown to successfully conduct their business online without the need to meet in person, and with the former also displaying high levels of interaction, mutuality and cognitive activity.

8.2 Methodologies for Investigating Group Learning in an Online Environment

The present study has shown that a case study approach is an appropriate research methodology for the investigation of group learning in an online translation classroom. In studies of this kind, the researcher does not attempt to manipulate the research situation in order to measure a variable or test a hypothesis. Rather the aim is to describe and interpret the situation as it exists in 'real life'. With the focus on an example of educational innovation, the study was informed by action research, a subcategory of case study research practised in educational settings by teachers interested in instigating and reflecting on educational innovation. As such, it involved a cyclical process of planning, implementing and reflecting on the success of an online module in economic translation, with the researcher engaged in the entire cycle of activities which characterise this type of investigation.

In common with other examples of case study research, a largely qualitative approach was taken to the collection and analysis of data, while at the same time recognising the importance of multiple sources and types of evidence. Transcripts of online discussions automatically stored by the virtual learning platform provided the main source of research data. Additional evidence was provided by student surveys conducted at the beginning, middle and end of the online module. Discussion transcripts were subject to a variety of analysis methods and the results triangulated with one another and with the findings from student surveys. Simple counting techniques provided an overview of the entire corpus of data and gave a first indication of participation levels per participant and learning activity. The techniques of Intermessage Reference Analysis and message clusters were used to identify the extent to which participants were reading and responding to one another's postings while engaged in particular learning activities. Finally, and most importantly, the content of online discussions was analysed in order to identify those tasks which led to the creation of an online community of inquiry based on interaction and group work.

When it came to the content analysis of discussion transcripts, a decision was taken to use an already-existing model rather than engaging in the lengthy and time-consuming process of instrument construction. The search for an appropriate instrument led to the choice of the 'Community of Inquiry' Model. This was selected for a number of reasons: it was created specifically for use within an educational context; rubrics are available for the analysis of social presence, teaching presence and cognitive presence; the authors have published a wealth of literature explaining their approach; and the model has been successfully replicated in other research studies.

The deployment of the 'Community of Inquiry' Model allowed a number of conclusions to be drawn about the model itself. Overall, the rubrics proved easy to use and allowed messages to be coded on three different levels, enabling the researcher to describe and compare the online group-learning experience across different tasks. With regard to *social presence*, we found that while the originators of the model regard all indicators and categories as equally significant, the 'interactive' category is the most reliable indicator of the existence of community of inquiry. A correlation was shown to exist between high

readings for the 'interactive' category of social presence, a high percentage of cognitive as opposed to 'non-cognitive' postings and high frequencies for 'integration' in messages categorised as 'cognitive'. In terms of *teaching presence*, a measurement of 'teaching presence density' was shown to enable comparisons to be drawn across different activities. The fact that there is no recommended optimal level for either teaching or social presence was found to be a disadvantage of the 'Community of Inquiry' Model. However, it was also acknowledged that it may not be possible to quantify optimal levels and that, as the originators of the 'Community of Inquiry' Model argue, what matters is that social and teaching presence are at a level adequate to support a functioning community of inquiry.

The *cognitive presence* rubric was also found to be in need of modification. A 'non-cognitive' category was added for the classification of messages in which there was no evidence of cognitive, i.e. on-task, activity. Measuring the ratio of cognitive to 'non-cognitive' messages allowed conclusions to be drawn about the extent to which online discussions were on-task and truly focussed on learning issues. Finally, the fourth and highest level of the cognitive presence rubric, 'resolution', was deemed not to be relevant to the present study where the ultimate aim of online interaction – particularly in the case of discussion-group tasks – was not to reach consensus or resolution, but rather to create a learning product following discussion and debate.

8.3 The Advantages and Disadvantages of Web-based Delivery of Translator Training

The present study has illustrated some of the advantages and challenges of providing translator training in an online learning environment. Text-based computer-mediated communication was seen to enable the generation and sharing of multiple perspectives on and solutions to translation problems. The ratio of student to teacher postings was shown to be much higher than in the conventional classroom, allowing us to conclude that the online classroom was more student-centred. These findings were also supported by student perceptions of the online learning experience. Students valued the open discussion of translation problems, the pooling of knowledge, the interaction between native speakers of source and target languages, and the generally uncompetitive

atmosphere of the online classroom. They appreciated the independence of time and place provided by the online learning environment and also found they had improved their IT skills and general translation competence through participation in the module.

Challenges from the learner's perspective may be grouped into two types: those inherent to the online medium and those relating to specifics of course design in the case of module GE502. The former included what students perceived to be an increased time investment required for participation in the online module; the impersonal nature of the virtual classroom; the potential for misinterpretations; a lack of Internet access from home; and, in some cases, participants' insecurity about the value of their contributions to conference discussions. Other drawbacks were due to the initial course design and, where possible, these were addressed prior to the second implementation of the module. Reflection tasks and translation-related tasks were a source of frustration, and their number was therefore reduced. Confusion and repetition in the discussion threads were addressed by changing the structure of the Discussion Area and linking each conference to a particular assignment. From the instructors' perspective, challenges included the difficulty of forecasting and overcoming misunderstandings in the online classroom, the inability to draw in individual students so as to ensure that specific questions were addressed and that all students were contributing their share, and the heavy workload implications of providing individualised, text-based feedback on student assignments.

8.4 Outlook

This study has focussed on the investigation of group learning where text-based, asynchronous computer conferencing was the main channel of communication between participants. While this type of interaction continues to be the mainstay of all widely-used virtual learning platforms from WebCT® to First Class® and Moodle®, technological developments have broadened the options for integrating various forms of synchronous communication into the e-learning classroom. Interactive whiteboards allow for the presentation of lectures in real time, voice-over IP supports audio communication between learners, and the use of webcams enables users to communicate via audio and video, while calling up and sharing documents and files. Marratech® is an example of a commercially-available package which integrates audio with interactive whiteboard,

application sharing, real-time video and synchronous text-based messaging. Developments of this kind have the potential to meet the need for real-time communication in the online translation classroom, particularly when the implementation of a collaborative-group structure requires students to negotiate and agree a joint learning product.

However, as with all forms of technological innovation, pedagogical considerations must remain to the forefront. We have seen in this study that the 'Community of Inquiry' Model stresses both the interactive and the reflective aspects of learning and that both dimensions may be supported by asynchronous, text-based communication. Particularly in a text-based subject like translation, the importance of reflection prior to and following interaction cannot be overestimated. However, synchronous communication happens on the fly, and does not easily lend itself to the reflective aspects of the learning process. Thus, real-time interaction should be considered only as an optional add-on in the online translation classroom. This conclusion is reinforced by technological considerations. The use of synchronous audio and video communication makes high bandwidth Internet access an imperative, yet the most recent Forfás report on broadband penetration in Ireland found that as of June 2006, Ireland ranked 24th out of 32 countries, with only 9.2% broadband take-up and a lack of access to even basic broadband services outside the main towns and cities (see Forfás 2006: 15). Thus, for both pedagogical and technological reasons, translation instructors and researchers need to continue to focus their efforts on methods of facilitating and investigating group-learning techniques via text-based computer conferencing, while at the same time recognising and exploring the benefits and challenges of integrating new synchronous communication tools into the online translation classroom.

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Appendix A: Cognitive Presence Categories, Indicators and Definitions

Category	*Indicators*	*Definitions*[1]
Triggering	Puzzlement	Asking questions, messages that take discussion in a new direction
	Recognising problem	Presenting background information that culminates in a question
Exploration	Brainstorming	Adds to established points but does not systematically defend/justify/develop addition
	Divergence within online community	Unsubstantiated contradiction of previous ideas
	Divergence within single message	Many different ideas/themes presented in one message
	Information exchange	Personal narratives/descriptions (not used as evidence to support a conclusion)
	Suggestions for consideration	Author explicitly characterises message as exploration e.g. 'Does that seem about right?'
	Leaps to conclusions	Offers unsupported opinions
Integration	Convergence within group	Reference to previous message followed by substantiated agreement
	Convergence within message	Justified, developed, defensible, yet tentative hypothesis
	Connecting ideas, synthesis	Integrating information from various sources
	Creating Solutions	Explicit characterisation of message as a solution by a participant
Resolution	Vicarious application to real world	No definition given by authors
	Testing/defending solutions	No definition given by authors

Source: Garrison et al. (2000)

[1] Garrison et al. (2000) refer to 'sociocognitive processes' rather than 'definitions'.

Appendix B: Social Presence Categories, Indicators and Definitions

Category	*Indicator*	*Definition*
Affective	Expressions of emotion, including emoticons	Conventional expressions, or unconventional expressions including repetitious punctuation, capitalisation, emoticons
	Humour	Teasing, cajoling, irony, understatement, sarcasm
	Self-disclosure	Presenting details of life outside class, expressing vulnerability
Interactive	Continuing a thread	Using reply feature of software
	Quoting from others' messages	Using software feature to quote others or cutting and pasting from others' messages
	Referring explicitly to others' messages	Direct references to contents of others' posts
	Asking questions	Students ask questions of each other/the moderator
	Complimenting others	Complimenting others on contents of their messages
	Expressing agreement	Expressing agreement with others or content of others' messages
Cohesive	Vocatives	Addressing/referring to participants by name
	Addresses or refers to the group	Addresses group as we, us, our, group
	Phatics, salutations	Communication that serves purely social function

Source: Rourke et al. (1999)

Appendix C: Teaching Presence Categories, Indicators and Examples

Category	*Indicator*	*Example*[2]
Design/ Organisation	Setting curriculum	"This week we will be discussing..."
	Designing methods	"I am going to divide you into groups, and you will debate..."
	Time parameters	"Please post a message by Friday."
	Utilizing medium	"Try to address issues that others have raised when you post."
	Establishing netiquette	"Keep your messages short."
Facilitating Discourse	Identify agreement/disagreement	"Joe, Mary has provided a compelling counterexample. Would you care to respond?"
	Encourage consensus	"I think Joe and Mary are saying essentially the same thing."
	Acknowledge/reinforce student contributions	"Thank you for your insightful comments."
	Setting climate for learning	"Don't feel self-conscious about thinking out loud in the forum."
	Prompting discussion	"Any thoughts on this issue?"
	Assess efficacy of process	"I think we're getting off-track here."
Direct Instruction	Present content/questions	"Bates says .. What do you think?"
	Focus discussion	"I think that's a dead end. I would ask you to consider..."
	Summarise discussion	"The original question was .. Joe said .. Mary said.."
	Confirming understanding through Assessment/feedback	"You're close, but you didn't account for..."
	Diagnose misconceptions	"Remember, Bates is speaking from an administrative perspective, so be careful when you say.."
	Inject knowledge	"You can find the proceedings at ..."
	Respond to technical concerns	"If you want to include a hyperlink in your messages, you ..."

Source: Anderson et al. (2001) and Garrison and Anderson (2003)

[2] In the case of teaching presence, the authors provide examples, rather than definitions of each of the indicators.

Appendix D: Sample Atlas.ti® Codes Report

HU: Small work groups
File: [C:\WINDOWS\Desktop\MA\Online Module\2004-5\Discussion threads\Word docum...\small work groups.hpr5]
Edited by: Super
Date/Time: 10/11/06 10:31:52

Codes-Primary-Documents-Table

Code-Filter: All
PD-Filter: Primary Doc Family Phase 2 Activity 3

	PRIMARY DOCS			
CODES	21	22	23	Totals
Aff - Emotions	4	1	0	5
Aff - Humour	2	4	0	6
Aff - self-disclosur	1	0	0	1
Cohesive - Addresses	0	0	0	0
Cohesive - Phatics	11	3	1	15
Cohesive - Vocatives	19	7	1	27
Exploration - Brains	2	0	0	2
Exploration - Inform	3	0	0	3
Exploration - Sugges	0	0	0	0
Integration - Agreem	0	0	0	0
Integration - Connec	0	0	0	0
Integration - Soluti	0	0	0	0
Interact - Complimen	0	1	0	1
Interact - cont thre	14	2	0	16
Interact - direct re	0	0	0	0
Interact - express a	3	1	0	4
Interact - questions	19	9	0	28
Interact - quoting	0	0	0	0
Teaching - Design Me	1	1	1	3
Teaching - Design me	0	0	0	0
Teaching - Direct -	0	0	0	0
Teaching - Discourse	0	0	0	0
Teaching - Other	1	1	0	2
Teaching Design - Ti	0	0	0	0
Triggering	1	0	0	1

Appendix E: Atlas.ti® Cognitive Presence Quotations Report

Query Report

HU: Community of Inquiry
File: [C:\WINDOWS\Desktop\MA\Online Module\2003-4\Discussion Pilot phase\Discu...\comm
inquiry.hpr5]
Edited by: Super
Date/Time: 29/10/06 12:16:07

Global selection criteria:
"P12: Activity 19 Ind Trans ESF 51.doc"

51 quotation(s) found for Query (Infix-Notation):
"Cognitive Presence"

P12: Activity 19 Ind Trans ESF 51.doc - 12:2 [Message no. 591: [Branch from ..] (10:16) (Sup
Codes: [Integration - Convergence within Group] [Irish] [ST Tone]
No memos

```
Message no. 591: [Branch from no. 586]
posted by                              on Tue Nov 25, 2003 12:10
Subject: re: Individual Translation of ESF document.
I agree with you      . The tone is very matter of fact.
It just seems to be giving the reader information and
not seeking to persuade or convince in any way, as the
previous texts did
```

P12: Activity 19 Ind Trans ESF 51.doc - 12:3 [Message no. 587: posted by Ket..] (19:24) (Sup
Codes: [Irish] [ST Terminology] [Triggering - Puzzlement]
No memos

```
Message no. 587: posted by                          on Tue Nov 25, 2003 11:
Subject: KMU?
Maybe I've missed something, but can anyone tell me what
KMU stands for? It's in part 2 a couple of times, i
guess it stands for a particular group of people...
```

P12: Activity 19 Ind Trans ESF 51.doc - 12:4 [Message no. 596: [Branch from ..] (27:32) (Sup
Codes: [Exploration - Brainstorming] [German]
No memos

```
Message no. 596: [Branch from no. 587]
```

Appendix F: Atlas.ti® Social Presence Quotations Report

Query Report

HU: Community of Inquiry
File: [C:\WINDOWS\Desktop\MA\Online Module\2003-4\Discussion Pilot phase\Discu...\comm
inquiry.hpr5]
Edited by: Super
Date/Time: 29/10/06 14:59:53

Global selection criteria:
"P12: Activity 19 Ind Trans ESF 51.doc"

91 quotation(s) found for Query (Infix-Notation):
"Social Presence"

P12: Activity 19 Ind Trans ESF 51.doc - 12:53 [Does anybody agree/ disagree w..] (4:4) (S
Codes: [Interact - Questions]
No memos

```
Does anybody agree/ disagree with this?
```

P12: Activity 19 Ind Trans ESF 51.doc - 12:54 [Subject: re: Individual Transl..] (12:12) (Sup
Codes: [Interact - cont thread]
No memos

```
Subject: re: Individual Translation of ESF document.
```

P12: Activity 19 Ind Trans ESF 51.doc - 12:55 [I agree with you] (13:13) (Super)
Codes: [Interact - Express agreement]]
No memos

```
I agree with you
```

P12: Activity 19 Ind Trans ESF 51.doc - 12:56 [XX] (13:13) (Super)
Codes: [Cohesive - Vocatives]
No memos

XX

P12: Activity 19 Ind Trans ESF 51.doc - 12:57 [can anyone tell me what KMU st..] (21:22) (

Appendix G: Atlas.ti® Teaching Presence Quotations Report

Query Report

HU: Community of Inquiry
File: [C:\WINDOWS\Desktop\MA\Online Module\2003-4\Discussion Pilot phase\Discu...\comm inquiry.hpr5]
Edited by: Super
Date/Time: 29/10/06 15:31:56

Global selection criteria:
"P12: Activity 19 Ind Trans ESF 51.doc"

7 quotation(s) found for Query (Infix-Notation):
"Teaching Presence"

P12: Activity 19 Ind Trans ESF 51.doc - 12:144 [Do also be careful about using..] (469:471)
Codes: [Direct - diagnose misconceptions]
No memos

```
Do also be careful about using phrases like 'In former
East Germany' since that could mean in the GDR between
1949 and 1990.
```

P12: Activity 19 Ind Trans ESF 51.doc - 12:145 [Do be careful about this! I've..] (459:467) (
Codes: [Direct - Inject knowledge]
No memos

```
Do be careful about this! I've just done a lexis-nexis
search (including reading the articles!!) and discovered
that as far as the English-speaking press is concerned:

East Germany/ West Germany refers to the two states
prior to 1990.

eastern Germany/ western Germany refers to the two
halves of Germany since 1990.
```

P12: Activity 19 Ind Trans ESF 51.doc - 12:146 [Feedback on the ESF translatio..] (489:513)
Codes: [Direct - Assessment/feedback]
No memos

```
Feedback on the ESF translation consists of three
```

Appendix H: Participation Guidelines

Minimum Usage. In addition to completing weekly activities and assignments, students should make at least two postings per week to the discussion threads in the Discussion Area. This may take the form of responding to others' postings or creating new discussion topics within the Discussion threads that have been created by the course instructors. Students should make a regular habit of logging on to the module website to check for new postings and course updates – from home, from the University library, from computer laboratories, in fact from anywhere possessing a computer with an Internet connection. Work should be completed over a number of days, rather than leaving assignments and postings to the last moment. It is worth considering that messages and assignments can be downloaded and printed from the course site. Responses can be prepared on a word processor, then copied and pasted into postings to the course site.

Learning Principles. Success of online learning depends on participants taking an active role and assuming responsibility for the learning process. Learning occurs through interaction with the course materials and through discussion with other participants and the course instructors. Students are responsible not just for logging on, but for completing the online activities and assignments, and posting ideas to the Discussion Area. It is important to become a reflective learner, reflecting not just on the course content but also on the process of learning in a setting of this kind. A discussion thread entitled 'Reflections on Online Learning' has been set up to facilitate reflection on the learning process.

Collaboration and Peer Feedback. Collaboration among participants is an important principle in web-based learning. In addition to individual assignments, this module contains group and pair activities designed to foster an atmosphere of teamwork and cooperation. The Discussion Area also provides a forum where students should attempt to give constructive feedback to one another (and to the instructors) on all aspects of the course. The Discussion Area should be regarded as the virtual equivalent of the face-to-face classroom, where opinions can be voiced, and questions raised. While participants may agree or disagree with other course members, feedback should be of a kind that promotes reflection, collaboration, and enhanced learning.

Questions. If there is a question relating to terminological or information research, or indeed to any aspect of the course, a query should be posted to the Discussion Area. Relevant discussion threads have been set

up for this purpose - and new discussion topics may be initiated by participants. Postings will be read by all course participants, and in many cases other students, rather than the course instructors, will provide the required assistance.

Instructor Role. As well as being subject experts and module designers, online instructors act as mentors and facilitators of student learning. They provide individual and group feedback for assignments and will enter into group discussions with course participants in the Discussion Area. Where appropriate, instructors will guide and moderate the discussions, mediating between different viewpoints and summarising the key points in the dialogues. The instructors may be contacted directly by WebCT Mail on any aspect of the course and will endeavour to respond as promptly as possible. However, unless questions relate directly to course assignments or technical issues, every other avenue should be explored before contacting the course instructors directly. At a minimum, course instructors will undertake to check WebCT Mail and Discussion postings on Mondays, Wednesdays and Fridays (with the exception of Week 6).

Sharing Resources. It is important to view the process of enquiry as a collaborative process rather than a competitive one. On finding a website that could be of use to other students, participants should post the URL to the Discussion Area. Where appropriate, the instructor will add this to the Resources Folder on the module Homepage. In this way, all students can contribute to creating a repository of resources useful to the entire group and indeed to any financial translator working in an online environment.

Assessment and Evaluation. 10% of students' overall module grade is allocated to online activity. In order to be awarded the full 10%, all online activities and assignments must be completed; at least 2 messages must be posted per week to the Discussion Area; and such postings must show evidence of having read other participants' comments and must make a *significant* contribution to the online discussions.

Appendix I: Overview of Online Learning Tasks Module GE502 (2003/4)

Task #	*Task Type*	*Description*	*Learning Structure*
# 1(TR)	Translation-Related Task	Source Text Analysis	Independent Study
# 2(R)	Reflection Task	Reflection on Participation Guidelines	Discussion Group
# 3(TTP)	Target-Text Production Task	Translation of Deutsche Bank Economic Forecast	Discussion Group
# 4(R)	Reflection Task	Difficult Aspects of Previous Translation Exercise	Independent Study
# 5(R)	Reflection Task	Response to Collated Difficulties Identified in Task # 4(R)	Discussion Group
# 6(TR)	Translation-Related Task	Evaluation of Published Translation	Discussion Group
# 7(SG)	Small-Group Task	Translation of Bertelsmann Text in Pairs	Cooperative/Collaborative Groups
# 8(TS)	Translation Subtask	Identification of Online Parallel Texts for Bertelsmann translation	Discussion Group
# 9(TS)	Translation Subtask	Production of Bilingual Glossary for Bertelsmann Translation	Discussion Group
# 10(R)	Reflection Task	Reflections on Pair Work	Independent Study
# 11(TR)	Translation-Related Task	Discussion with Deutsche Bank Consultant	Discussion Group
# 12(TTP)	Target-Text Production Task	Individual Translation of Deutsche Bank Quarterly Report	Discussion Group
# 13(TTP)	Target-Text Production Task	Optional Translation of Allianz Annual Report.	Discussion Group
# 14(TR)	Translation-Related Task	Evaluation of Online Discussion Forum	Discussion Group
# 15(R)	Reflection Task	Mid-Semester Evaluation	Independent Study
# 16(TR)	Translation-Related Task	ESF Research Project	Discussion Group
# 17(TR)	Translation-Related Task	ESF Collocations Project	Discussion Group
# 18(TR)	Translation-Related Task	ESF Summary Project	Discussion Group
# 19(TTP)	Target-Text Production Task	Individual Translation of Structural Funds Document	Discussion Group
# 20(SG)	Small-Group Task	Group Evaluation Report	Cooperative Groups
# 21(TTP)	Target-Text Production Task	Individual Translation of BfA Guidelines	Discussion Group
# 22(R)	Reflection Task	Translation Diary	Independent Study

Appendix J: Pre-Course Survey

Question 1 Please indicate your gender ◘ a. Male ◘ b. Female
Question 2 Please indicate your age-range ◘ a. 18 – 25 ◘ b. 26 – 35 ◘ c. 36 – 45 ◘ d. 46 - 55 ◘ e. 56+
Question 3 Please indicate your native language ◘ a. English ◘ b. German ◘ c. Other
Question 4 Do you have access to a computer at home? ◘ a. Yes ◘ b. No
Question 5 Do you have Internet access at home? ◘ a. Yes ◘ b. No
Question 6 Do you feel confident in your ability to use computer technology? ◘ a. Yes ◘ b. No

Question 7

Have you ever taken a course online before?

- a. Yes
- b. No

Question 8

If your answer to the last question was 'yes', please provide details of online courses you have taken.

Question 9

How do you think the Internet could be used to assist the professional translator?

Question 10

In your experience of the face-to-face classroom, how much do you normally contribute to classroom discussion?

- a. A lot
- b. Quite a lot
- c. A little
- d. Very little

Question 11

This module will be delivered primarily online. What advantages do you expect this to have? And are there any difficulties that you predict you might have with this format?

Appendix K: Post-Course Survey

Question 1

Has taking this online module made you more confident in your ability to use computer technology?

- a. More confident
- b. Less confident
- c. No change

Question 2

Do you enjoy using the PC? Has your mindset about using computer technology changed as a result of taking GE502 online?

- a. More positive
- b. Less positive
- c. No change

Question 3

Please comment on any aspects of the technology used in the online delivery of GE502 that you found difficult to use.

Question 4

Did you access the course site from inside or outside the computer lab (Room CG08b)? Please provide details.

Question 5

Please comment on the extent to which this module has met the expectations you had at the beginning of the semester.

Question 6

Please comment on the workload involved in this module. Do you think that online delivery increases or decreases the overall time spent by students on course-related activities (bearing in mind that face-to-face delivery involves 3/4 hours of class contact time per week?)

Question 7

Did the fact that this module is offered online motivate you to register for the module?

- a. Yes
- b. No

Question 8

Which of the following statements do you think most accurately reflects your level of activity in the Discussion Area?

◘ a. I made an average of two postings per week and I read all the postings by other course participants.

◘ b. I made an average of two postings per week, but I didn't read all the postings by other course participants.

◘ c. I made less than two postings per week and I didn't read all the postings by other course participants.

Question 9

Please comment on how useful you found it to be able to collaborate with other students, instructors and guests in the Discussion Area.

Question 10

Would you use the Discussion Area if it weren't a compulsory part of the course?

◘ a. Yes

◘ b. No

Question 11

Approximately how many unread messages do you think you currently have in the Discussion Area?

◘ a. None

◘ b. Less than five

◘ c. Less than ten

◘ d. More than ten

Question 12

Please comment on how useful you found the Group evaluation task completed in Week 10 of the semester.

Question 13

Please comment on how successful you felt the sharing of resources (websites, participants' files etc.) was during the course of the online module.

Question 14

Which of the following mechanisms used to provide feedback on your translation assignments did you find most useful?

◘ a. Group feedback (electronic feedback provided by the instructor to the entire group)

◘ b. Electronic feedback provided by the instructor on an individual basis ◘ c. Paper-based feedback provided by the instructor on an individual basis ◘ d. Peer feedback (individual feedback provided anonymously by other course participants)
Question 15 Bearing in mind that this module is delivered in an online environment, what do you think would be the most appropriate way to assess it (continuous assessment throughout the semester/2 hour examination/online project/other assessment instruments)?
Question 16 Having experienced this module, how do you think it should be delivered when it is offered again? ◘ a. All online ◘ b. All face-to-face ◘ c. A mixture of both
Question 17 Having experienced this module would you be inclined to take another online module in the future? ◘ a. Yes ◘ b. No
Question 18 Please comment on ways in which you think this module could be improved for future delivery.

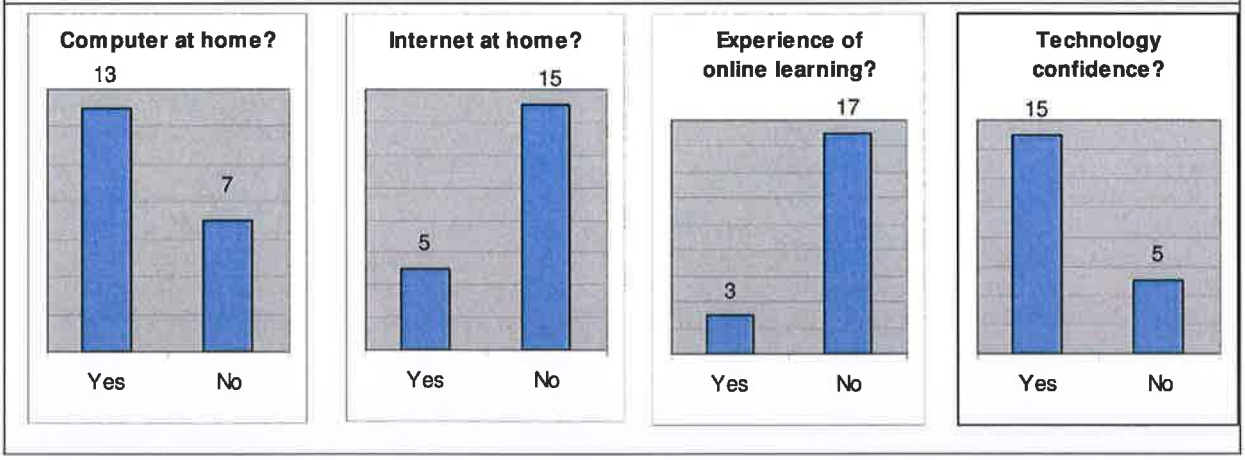
Appendix L: 2003/4 Profile of Participating Students: Pre-Course Survey

A survey consisting of open and closed questions was conducted at the beginning of the semester in 2003/4 in order to gain a profile of the twenty participating students. This survey was completed at the end of the first face-to-face session in which the principles and objectives underlying the module design had been explained to students. The information yielded in the pre-course survey is presented here under three headings: Technology, Demographics and Attitudes/Expectations.

Technology

Figure 10 shows that of the 20 participating students, 13 had access to a computer at home and, of these, only 5 had Internet access. Thus, a majority of students needed to log onto the course website outside of home. Only 3 had any experience of formal learning online. To a final question whether students felt confident in their ability to use computer technology, 15 answered 'yes' and 5 'no'.

Figure 10. Pre-Semester Survey: Technology

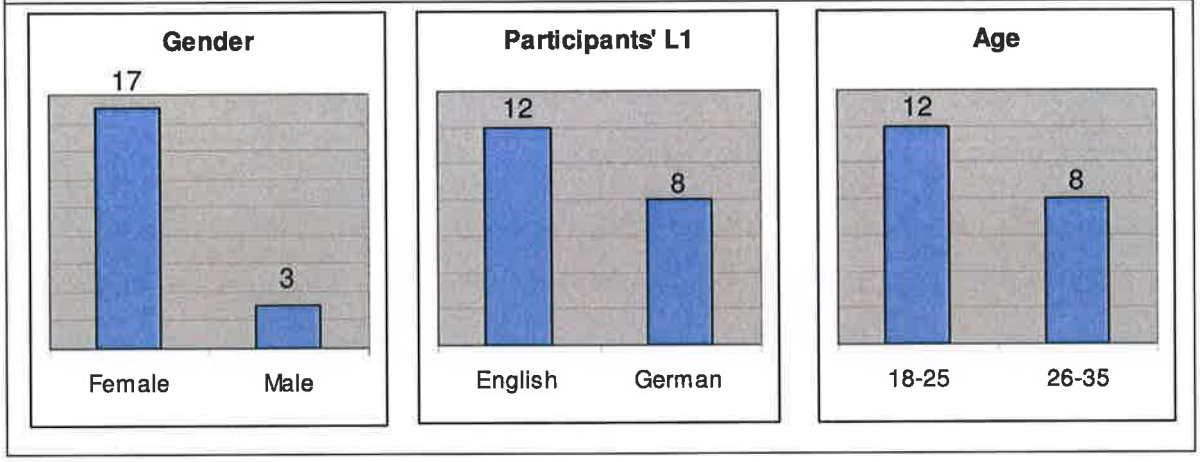


Demographics

A number of questions aimed at establishing the demographic profile of the group. Figure 11 shows that a clear majority were female (85%); there was a good mixture of native

English (60%) and native German (40%) speakers; and a spread of ages between 18 and 35, with a majority (60%) in the 18-25 category.

Figure 11. Pre-Semester Survey: Demographics



Attitudes/Expectations

Participants were asked in an open-ended question to comment on their expectations for the online module. They were invited to reflect upon the expected advantages as well as any difficulties they might predict. Positive comments related primarily to access: time independence (9 respondents), place independence (4 respondents), and ease of access to online resources (1 respondent) and to the course tutor (1 respondent). Only three students anticipated fruitful interaction between course participants while three others predicted an improvement in their IT skills. Four students envisaged difficulties with the technology due to what one described as a "lack of computer skills and experience", while five expected the absence of face-to-face contact to be a disadvantage.