Repair in Web-based Conversation:

A Case of Chinese Academic Discussion

Thesis submitted for the degree of

Doctor of Education

at the University of Leicester, UK

by

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May 2006

May, 2006
Thesis for the degree of Doctor of Education at the University of Leicester
entitled

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Abstract

This study examines Web-based conversation, focusing on Chinese academic discussion, from a Conversation Analysis (CA) perspective. The research investigates repair in asynchronous talk-in-interaction on the Web and compares this with repair in ordinary conversation in English, as analysed by Schegloff et al. (1977). It also explores the reasons for any differences which arise from the setting in which this study takes place.

The research analyses naturally occurring written interaction on Web-based discussion boards from two education courses offered by the Open University of Hong Kong. Over 4,000 postings, with nearly half a million Chinese characters, which were contributed by 400 participants were captured and analysed.

The study adds fresh data to existing CA work on repair and talk-in-interaction, and provides new information about how repair is organized in asynchronous conversation in Chinese through the Web — an area in which very limited work has been carried out to date. The research shows that repair systems exist in Web-based conversation and that, while the basic possible structures for repair are the same as in ordinary conversation, some operations in the system are different. Seven forms of initiation techniques for repair and ten repair patterns in Web-based conversation are identified and exemplified. The analysis of 351 instances of repair shows that the majority (63.2%) are other-repairs, which demonstrates that preferences in repair in Web-based academic discussions are very different from those which have been proposed for ordinary conversation.

The study deals with three external factors that have an impact on repair in Web-based conversation, namely the medium of the Web, asynchronous interaction, and the written form of language use, of which the first is the central, as the latter two are determined by it.

The study concludes by discussing some possible implications of the findings for distance learning and teaching, and also for developing technology for human communication through the Internet, in particular the Web.

Acknowledgments

I would like to express my gratitude to my supervisor Dr Peter Martin for overseeing the progress of my study and providing invaluable guidance and support. I would not have been able to complete this thesis without our tutorial and email discussions and his critical comments on my drafts over the years. I wish to express my appreciation also to my former supervisors, Professor Martin Cortazzi and Dr Pamela Rogerson-Revell, whose encouragement led me into the field of discourse analysis, and motivated me to study talk-in-interaction on the Web.

I would also like to record my sincere thanks to friends, colleagues, teachers and students who have been so helpful and accommodating during this study. I wish to thank in particular Catkin Leung, who helped me to retrieve and sort out all the data from the Web, and worked as a coder with me.

I am extremely grateful to Professor Ronnie Carr for commenting on an earlier version of the thesis, and to Sally Bramwell, whose editing and proofreading of some parts of an earlier version greatly improved its presentation.

Finally, I am deeply indebted to my parents, particularly my late father, my husband and my son for their love and encouragement through the years.

Contents

Chapter 1

Introduction

1.1 Online learning

In recent years, computers and the Internet have had a very significant effect on education, particularly on distance education, which has seen an enormous growth in provision world-wide. Of particular relevance to the present study is the rapidly increasing use of technology in distance education. For example, the Open University of Hong Kong (OUHK), a distance education institution in which the author works, has adopted the Online Learning Environment (OLE) for the delivery of its courses. This system has been developed using Lotus Domino, and can be used for both English and Chinese language. The total number of courses supported by the OLE has grown semester by semester. In October 2004, 194 of the OUHK's courses (about two-thirds of the total number for the semester) were supported by the OLE; and of these 194 courses, 62 used Chinese as the medium of instruction. At the OUHK, all courses supported by the OLE include Web-based discussion boards, which offer both students and tutors an additional channel for exploring academic issues and exchanging ideas about coursework.

The distance learning literature provides support for the value of social interaction within the OLE (e.g., Anderson, 2003; Lee and Gibson, 2003; Duffy and Kirkley, 2004). One form of interaction made possible by the new generation of distance learning technologies has been interaction among peers (Garrison, 2000). Communication among peers is defined as communication between one learner and other learners, alone or in a group setting, with or without the presence of an instructor (Moore and Kearsley, 1996; LaPointe and Gunawardena, 2004). Web-based discussion boards are designed to facilitate peer interaction for collaborative learning and joint knowledge building, and they also facilitate tutor mentoring and peer review.

Investigations of online learning environments have previously focused on their technological, organizational, methodological and pedagogical features. Recently,

however, the emphasis has shifted to language; as 'the Internet comes increasingly to be viewed from a social perspective, so the role of language becomes central' (Crystal, 2001, p. viii). When Computer Mediated Communication (CMC) has been examined from the perspective of Conversation Analysis (CA), it has been found that 'conversation becomes not simply a metaphor but an analytical baseline' (Hutchby, 2001, pp. 9) from which to gauge the nature of the relationship between forms of technology and structures of interaction.

1.2 Language use and talk-in-interaction in the OLE

In investigating the nature of the impact which the Internet has had on language, Crystal (2001, p. 8) commented:

> Indeed, notwithstanding the remarkable technological achievements and the visual panache of screen presentation, what is immediately obvious when engaging in any of the Internet's functions is its linguistic character. If the Internet is a revolution, therefore, it is likely to be a linguistic revolution.

The language used on the Web differs from written as well as spoken forms of language used in other contexts. It is, therefore, recognized that the Internet shapes language use. Because of this differentiation in language use, Web-based discussion as a distance learning approach may be viewed from a linguistic perspective. Students use Web-based discussion boards as a medium to exchange their ideas or talk to each other; and their talk through this medium is interactive, and since it 'is not prescribed, set up or organized by the researcher, … is as far as possible, naturally occurring' (Hutchby, 2001, p. 5). Such talk-in-interaction may be viewed from the perspective of Conversation Analysis, which involves the systematic analysis of the kinds of talk produced in everyday naturally-occurring situations of social interaction.

The OLE uses asynchronous communication, which is the most common form of exchange and tends to be favoured most in educational settings. In the cases used in this study, asynchronous communication in the OLE takes place through the written form of language.

As it is typed, it is therefore like writing, but the exchanges are often rapid and informal, and are therefore more like spoken conversation (Chapter 2 provides an in-depth review of the literature in this area). Moreover, Herring (1996, p. 3) indicates that language use in CMC, of which Web-based conversation can be categorized as one form, has unique features of its own, such as the use of 'emoticons' (smiley faces composed of ASCII characters) and other graphics, special lexicons, acronyms, and so on.

Furthermore, language use in the OLE is not homogeneous. It is differentiated by styles and genre, even in formats, some of which are determined by the available technologies (e.g., real-time 'chat' modes, asynchronous email modes). It is also differentiated by human factors such as communicative purpose and group membership. Since the 1980s, these issues have attracted growing theoretical and practical interest from researchers who wanted to explore whether or not there are differences between computer mediated communication and other forms of spoken and written communication (e.g., Cathcart and Gumpert, 1983; Baron, 1984; Rice, 1984; Chesebro, 1985; Murray, 1985, 1989, 1991, 2000; Herring, 1996; Werry, 1996; Gruber, 1997, 1998, 2000; Gains, 1999; Crystal, 2001).

Since the development of computer networks, computers have come to be used predominantly for human-to-human social interaction, or so-called 'technologized interaction' (Hutchby, 2001, p. 5). Such interaction takes place between people via the computer and, like other media such as the telephone, computers have an impact on people's talk-in-interaction in many ways, an area which has aroused both popular and academic interest.

Computer scientists and systems designers have been led by the developments in computer networks to consider what goes on between computers and their users in terms of 'interaction', or 'conversation'. Then, from the late 1980s, they turned to social science research directly concerned with the organization of conversational interaction (e.g., Suchman, 1987, 1990; Luff, Gibert and Frohlich, 1990; Greatbatch, Luff, Heath, and Campion, 1993; Frohlich, Drew, and Monk, 1994; Thomas, 1995). This reflected increasing recognition that, in order to design computer systems which can either simulate or, more ambitiously, reproduce the nature of human

communication, it is necessary to be familiar with the following areas – how people's everyday talk-in-interaction is organized; how talk-in-interaction through computer networks is organized in existing computer systems, and what the differences between the two are; and what can be improved to enable IT to provide more effective channels for human communication. Though this study can assist computer scientists and systems designers in understanding some features of Web-based talk-in-interaction, it does not aim to explore how this interaction could be 'technologized'; instead, the focus here is on the 'interaction', though it is technologized.

As computer-mediated communication has taken place for just about two decades, only a few researchers have studied language use in CMC. Moreover, only a limited amount of research has been conducted in non-English-dominant countries or in non-English languages; and any descriptions of the technology and functions of CMC are likely to be outdated by the time they are published (Murray, 2000, p. 398). Because of the dearth of factual information, there is a pressing need for descriptive and empirical research in this area. The present research examines the structural properties of conversation through the medium of the Web, and considers how they reveal what is actually going on in language use. Also, because this study links language use with the computer medium, it may also have some implications for computer technology.

1.3 Study purpose, questions and objectives

This study was motivated by a dual methodological goal: first, it attempts to demonstrate how CA can help us to analyse the organization, particularly repair organization, of human talk-in-interaction via the Internet, an area which has posed a challenge to linguistics. As its second goal, this study tries to contribute to Conversation Analysis research by utilizing a CA-based framework applied to Chinese to examine talk-in-interaction in a non-English language. In other words, the primary purpose of this research is to uncover and describe the organizational features of Web-based conversation in Chinese from a CA perspective.

Researchers from various areas and different perspectives have tried to explore whether specific forms of social interaction have grown up around technologies for communication. The argument centres upon a complex interplay between the

normative structures of conversational interaction and the *communicative affordances* offered by forms of technology (Hutchby, 2001, p. 13). This study focuses on the most important of the modern technologies for communication — CMC, in general terms, or Web-based conversation in particular — to see if there are any differences in the organizing conversation structure, repair organization, when compared to the *normative structure*.

CA was introduced in China in the 1980s (e.g., Ho, 1988; Ho, 1989). While Chinese scholars have carried out some research work on Chinese Conversation Analysis, as yet, no one has applied the CA approach to CMC data.

Although this study centres on a highly specific communication culture and activity context (i.e. academic discussion in an educational setting), it is believed that the features of asynchronous Web-based conversation are a general phenomenon. This research tests whether some of the ways of organizing conversation are universal interactive mechanisms, or whether their basic structures are affected by variations across medium or language. That is, it attempts to analyse whether some conversational practices in Web-based conversation are shared by, or differ from, the normative structures of conversational interaction.

So far we know much more about the rules and principles governing oral conversation than about those concerning computer-mediated conversation. However, we now use the computer as a medium to interact with each other to a much greater extent than we have previously used any other medium. Therefore, it is very important that we understand how written discussions using computers as the medium are structurally and strategically organized. Also, as the same or similar principles are valid for a large number of educational settings, studying the organization of Web-based conversation in the case of OUHK courses for teachers helps us to understand the Web-based interactional principles of other conversations.

As in other forms of talk-in-interaction, everyday conversation for example, participants in Web-based conversation may sometimes experience certain kinds of 'trouble' in an ongoing interaction, e.g., miswriting a word, typing a wrong character (in the case of using Chinese), providing some wrong information or message with

some mistakes, making contradictory assertions, or expressing their misunderstanding of other's 'speaking'. On such occasions, either the participants who have made the 'trouble' (referred to as the 'trouble source') or other participants may see fit to produce a correction or at least introduce an exchange to clarify the matter — which is referred to by the term 'repair' (which is discussed in detail in Chapter 2, section 2.4). In other words, participants in Web-based conversation often find themselves in a situation where they need to 'repair' some trouble which has occurred in the process of talking in order to keep the communication going. Thus, repair organization has been one of core areas of study in Conversation Analysis and this motivated the researcher to explore the particular kinds of repair organization used when participants try to deal with problems occurring in academic discussion through the Web.

The first goal of this study is to test whether the theories of repair organization can adequately explain conversational features observed in Web-based discussion in Chinese captured from real academic settings. Secondly, it attempts to assess whether repair practices in Web-based discussion are shared with or differ from the normative structures of conversational interaction. More specifically, the research attempts to answer the following questions:

1 What are possible structures for repair organization in Web-based conversation?
2 How do participants use techniques to initiate repair in Web-based conversation?
3 What repair patterns occur in Web-based conversation?
4 Is there any difference between preferences for repair in Web-based conversation and those that have been described for oral conversation? And if so, why?

The study is based on naturally occurring written interaction on Web-based discussion boards from two education courses, *ET300C* and *ET800C*, which are offered for in-service teachers by the School of Education and Languages of the Open University of Hong Kong. The two discussion boards consist of over 4,000 postings by students, tutors, and the Course Coordinator. All the texts were captured after the courses ended and were analysed to assist in understanding how participants organize their repair practice for talk-in-interaction through Web-based discussion boards.

1.4 Three dimensions of the study

This research involves three separate but interconnected dimensions. The first is Conversation Analysis (CA), an integral part of the study of language in use, within which this research focuses on repair organization in particular. The second approach involved is Computer Mediated Communication; and the third is the application of CA to the written form of Chinese.

As regards the first aspect, repair organization is one of the most important interactional organizations of conversation, and one of the core tasks for CA. Investigation of the detailed organization of a wide variety of naturally occurring interactional phenomena has provided this field with valuable results. However, the most successful attempt to develop a description of repair in everyday oral conversation to date is still the foundation work by Schegloff et al. (1977).

As CMC — the second aspect of this study — has developed into a world-wide medium of communication, it has attracted the attention of a number of researchers. Notable among the investigations in this area is, for example, the work of Murray (1985, 1989, 1991, 2000) who has studied intensively the norms of language use developed by CMC-based speech communities, especially CMC's own norms of conversation. As will be seen in Chapter 2, writers such as Hutchby (2001) and Crystal (2001) have applied Conversation Analysis to CMC, and made considerable contributions to this area. However, no study has yet been carried out specifically on repair organization in the talk-in-interaction taking place on the Web.

As regards the third aspect, although Conversation Analysis for Chinese is still a relatively new field of exploration, particularly in relation to repair organization, there have been some research findings in this area (e.g., Li, 1994; Li, 1996; Zhao, 1996; Qian, 1997; Zhang, 1998; Jiang, 2000, 2003; Li, 2001). This study introduces both the theoretical and complementary research approaches of CA in Chinese studies.
It is imperative to recognize that both CA and CMC were originally products of Western research; and several scholars have actively warned against the assumption that some common Western theories and research methods are appropriate to other language and cultures (Enriquez, 1982, quoted in Watkins and Biggs, 1996, p. 3).

However, in the last two decades, CA and related approaches have been employed by researchers in many parts of the world, and have been applied to the study of non-Western languages, e.g., Chinese (as noted above and in later parts of this thesis), Japanese (e.g., Maynard, 1989; Szatrowski, 1993; Mori, 1994, 1999; Tanaka, 1999; Hayashi, 2003), Korean (Kim, 1993, 1999; Park, 2002) and Akan (Obeng, 1992). Other work has also been completed on the comparative study of conversation for non-Western and Western languages. For example, Moerman (1988) compared Thai and English conversational organization; Hopper and Doany (1989) compared telephone openings in English, French and Arabic; Fox, Hayashi and Jasperson (1996) conducted cross-linguistic studies of Japanese and English; and Park (1998) analyzed contrastive connectives in English, Korean and Japanese conversation. It has come to be accepted that, although the CA methodology and techniques were initiated from reviewing English data which may cause the findings to be in part culturally-specific, 'the methods employed should be of quite general application' (Levinson, 1983, p. 296).

Since a great deal of CA research has been carried out on materials from cultures and languages quite different from American English — as different as listed above — Schegloff (see Prevignano and Thibault, 2003) argues that 'the work is not differentially suited to English, nor are there languages that we know about that resist analysis along conversation-analytic lines' (p. 13).

1.5 Outline of this thesis

Following this introduction, Chapter 2 reviews the literature around which this study is based. First, the general theoretical framework of Conversation Analysis (CA) is considered – and, within it, turn-taking and repair organization, which are the two core parts of CA as proposed by Sacks, Schegloff and Jefferson (1974) and Schegloff, Jefferson and Sacks (1977) respectively. Related work, for example on the significance of the number of participants in conversation and the application of CA to Chinese studies are also reviewed. Second, the main theories and research on Computer Mediated Communication (CMC), and in particular the application of CA to CMC, are outlined. Finally, the last part of the chapter focuses in detail on the literature specific to repair organization.

Although other researchers have already employed CA as a methodological approach to studying CMC and also conversation in non-English languages, to date there has been no study which has combined these two areas. The CA tradition employs qualitative studies of 'case-by-case analysis' (Have, 1999, p. 148), and Chapter 3 first deals with several issues related to research methodology and discusses the methodological strategies used in this study, especially regarding the use of quantitative methods for analytic purposes. It then discusses Web-based discussion boards, and describes the data collection methods used in this thesis. Finally, the methods employed for analysing and transcribing the Chinese data are presented in the last part of this chapter.

Chapter 4 analyses repair organization in Web-based conversation in Chinese by examining the applicability to CMC and Chinese of the repair organization system introduced by Schegloff et al. (1977). It includes repair structures, initiation techniques, repair patterns and preference in repair in conversation through Web-based discussion boards. From this analysis, it emerged that some features of Web-based conversation are compatible with the organization in English oral conversation, while other characteristics are different. The results of the analysis are then discussed.

The last chapter, Chapter 5, attempts to relate the findings of the study to the research questions addressed in the first chapter. A general discussion of some of the key viewpoints on repair organization in Web-based conversation is followed by an indication of how the study informs our current understanding of language use in the Web for communicative purposes. Lastly, this chapter explores the potential implications for distance education of the relationships between language and technology, and the theoretical and practical changes for the learning society in the Internet era.

Chapter 2

Literature review

2.1 Introduction: the choice of literature

The study examines how, from a linguistic perspective, repair in Web-based conversation is organized for communicative purposes in academic settings. The literature on conversation and conversation through the Internet or the medium of computers is very extensive, and there is a growing body of work that addresses related topics. The first question, therefore, is: what literature is most relevant to this study?

As indicated in Chapter 1, there are three dimensions to this research, namely, Conversation Analysis (CA), Computer Mediated Conversation (CMC) and non-English Conversation Analysis. The central theoretical framework, however, is Conversation Analysis. Although the participants communicate via computers (using a Web-based discussion board), they are still reliant upon everyday interactional competencies. Therefore, this chapter begins by outlining some of the fundamental theoretical principles of Conversation Analysis, by reviewing the work of Sacks et al. (1974) and Schegloff et al. (1977), both of which are regarded as classics in the field of CA.

In the section reviewing CA, the literature on non-English languages, particularly on Chinese Conversation Analysis, is also included. Although comparative analysis seems particularly useful for generating research questions, as this study is not aiming to analyse in detail the influences of culture and language on conversation organization, the review of the literature is limited to a discussion of some recent articles on the application of CA to Chinese.

The next section of the chapter then reviews previous work on Computer Mediated Communication (CMC). A number of studies on computers as a medium for human–

human communication have emerged since the late 1970s (e.g. Hiltz and Turoff, 1978; Carey, 1980; Black, Levin, Mehan, and Quinn, 1983; Kiesler, Seigel and McGuire, 1984; Murray, 1985, 1989, 1991, 2000; Peyton and Batson, 1986; Hiltz, 1986; Herring, 1996). However, as some outstanding work in this area has been published recently which has paid more attention to the study of CMC in relation to CA (e.g. Hutchby, 2001; Crystal, 2001), reviewing these sources is central to this chapter.

The final section of Chapter 2 review studies specifically on repair organization as this is directly related to the major focus of the current project. Repair has become a topic of increasing interest to conversation analysts. For example, there have been a number of research studies published since the late 1970s on the organizational characteristics of repair (e.g. Schegloff 1979, 1987b, 1992, 1997a, 1997b, 2000; Goodwin, 1981, 1987; Drew, 1981, 1997; Besnier, 1989; McHoul, 1990; Philips, 1992; Kim, 1993; Fox et al., 1996; Chui, 1996; Li, 1996; Zhang, 1998). The review of the literature on repair includes studies of repair structure, initiation technologies, types or patterns of repair and preferences for repair.

Clearly, an exhaustive treatment of the application of conversational analysis is not possible within the limited space available. Therefore, this chapter confines itself to reviewing the key studies in this area and providing some critical appraisal of this work. It is hoped that this will provide an adequate background to the wider and more detailed questions arising in this research.

2.2 Conversation Analysis (CA)

Since the1970s, there has been considerable interest in the field of Conversation Analysis (CA) from sociolinguists and researchers in related areas. Conversation analysts have set out to discover the principles that underlie the organization of everyday conversation. They have studied the ways in which people utilize the norms and conventions of talk-in-interaction organization and other behavioural phenomena to engage in the mutual collaborative achievement of communication. CA not only describes the form of language structures, but also the actual use of language. This section begins by introducing the concept of conversation, and then outlines the basic theoretical principles of CA. In the last two parts of this section, two core frameworks of CA — turn-taking and repair — are reviewed in general as fundamental theoretical background.

2.2.1 Conversation

'Conversation' has been defined from a variety of perspectives. For example, Have (1999, p. 4) argues that the term can be used to indicate any activity involving interactive talk, independent of its purpose; while Schegloff (1997a, p. 500) notes that 'action' and 'interaction' are at the heart of work on conversation. Overall, two different approaches have been taken to the definition of conversation. One is that it can refer to casual talk in everyday settings, the other that the term can be 'used in a loose way as an equivalent of talk or spoken interaction' (Goodwin, 1981, p. 1). The word 'conversation' is used in the latter sense in this study.

Though in a loose way, regard is still paid to the form of language use in conversation. It has been pointed out that conversation is 'the interchange through speech of information, ideas, etc.; spoken communication' (Collins English Dictionary, 2000). Also, Levinson (1983, p. 284) argued that conversation 'may be taken to be that familiar predominant kind of talk in which two or more participants freely alternate in speaking …'. It seems that conversation is viewed as the spoken, not written, form.

Traditionally, it may have been thought that the term 'conversation' should be applied to face-to-face and oral forms of communication only. However, now that

conversation is associated with technology, such as telephones and the Internet, many specialists in this area have adopted a broader definition. For example, Murray, who made notable contributions to the study of CMC, argues (1991, p. 83) that conversation is 'not medium or mode dependent; conversations may cross many media and modes, including a face-to-face fragment, a telephone fragment, or an email fragment, etc'. Thus, conversation should be considered to be any interactive, cooperative exchange through language between two or more participants. Conversations can be even created via the exchange of letters, memos, tapes, etc.

Murray's wider definition, in which conversation is seen to encompass most forms of verbal human interaction, is adopted in this study. That is, as used in the present research, 'conversation' does not imply oral as opposed to written or any other preconceived notion of the term, and is used to refer to any interactive communication through any form of language use among people — and so includes the Web-based discussion which underpins the empirical case studies of conversation in the present research.

2.2.2 The perspective of Conversation Analysis

Proponents of CA are interested in language use and have developed the theoretical and methodological foundations for the study of conversation among people. As pioneers in the field, Harvey Sacks, Emanuel Schegloff and Gail Jefferson (1974) developed the theory and methods to account in a detailed, data-driven manner for the resources and practices used in creating social order through situated language use, i.e. everyday conversation.

The expression 'conversation analysis' can be used in both a more restricted and a wider sense. In a restricted sense, it points to one particular tradition of analytic work that was started by Sacks et al. (1974). As a broad term, it can denote any study of people talking together. It is in this wider sense that Conversation Analysis is employed in this research, as the study aims to explore the specific issue of language use in a Web-based discussion setting.

As already mentioned, it is often argued that 'action' and 'interaction' are at the heart of the work on conversation (e.g., Schegloff, 1997a, p. 500). However, other researchers diverge from this standpoint and contend that the term *conversation analysis* is a misnomer. For them, it is not conversation, and they argue instead that: 'the term *talk-in-interaction* is a broader and more inclusive characterization of the phenomena of study. *Interaction analysis* would perhaps be an even more appropriate term because all aspects of interaction, nonverbal and nonvocal, are also amenable to study' (Psathas, 1995, p. 2). This perspective supports the view that the study of Web-based communication is one aspect of this field, as discussed in the previous section. Nevertheless, because the current study does not focus on terminological issues, but aims to find features of language use in the Web, both terms — *Conversation Analysis* and *talk-in-interaction* — are adopted here.

One of the primary interests in CA is how interaction is sequenced; how the turns that participants take in talking are related together in systematic and structured ways. Sequential analysis has, therefore, become a central task for CA. According to Sacks (1987, p. 54), the term 'sequential' means roughly that 'the parts which are occurring one after the other, or are in some before and after relationship, have some organisation as between them'. So, sequential analysis is concerned with how people collaboratively make sense of one another's talk, and discovers this by looking at the relationship between turns in talk.

One reason for the central position of sequential analysis in CA is that a fundamental fact of conversation, as Sacks et al. (1974) point out, is that neither the content nor the conversational turns of a conversation can be specified in advance by either participant in the conversation. These aspects can be negotiated only in the process of talking, and result from the conversants' mutual needs to express themselves and understand one another. Therefore, conversation analysts determine the structure of conversation by focusing not just on either the talk of the speaker or the response of listener, but rather on that of the conversants *vis-à-vis* each other (Nystrand, 1986, p. 51). Hence, how talks between people are sequentially organized is the basis for analysis, or, 'at least, ... we can impose a sequential organization on them' (Geis, 1995, p. 186). According to conversation analysts, sequential organization is its single most important structural property.

Another reason why sequential analysis is the basis for CA is that conversation analysts argue that meaning is not inherent in sentences; rather, as each speaker takes a turn at talk, he/she contributes to the preceding speaker, and in doing so provides evidence of the particular understanding of that prior talk. As Philips (1992, pp. 312-13) asserts, the meaning of a particular sentence does not belong to a single speaker; rather, through the process of interaction, the meaning is jointly constructed by co-interactants and changes continually through the sequential structure of talk.

Regarding analysis of the sequential structure in conversation, Heritage (1984) points out that, conversation analysis is 'primarily concerned with the ways in which utterances accomplish particular actions by virtue of their placement and participation within sequences of actions. It is sequences and turns-within-sequences which are thus the primary units of analysis' (p.245).

Schegloff (1988, p. 61) also claims that those involved in real conversations always talk in some sequential context, and takes this to be the 'more or less proximately preceding and projectably ensuing talk'.

As stated in Chapter 1, this study aims to explore repair organization in Web-based conversation. The study of repair involves sequential analysis to make clear how repair in talk is organized in an orderly way. Within sequences, there are turns which are the basic unit in building up talk-in-interaction, and who takes a turn is decided as the interaction develops. 'Turn' is, therefore, one of core concepts for a linguistic perspective on talk-in-interaction. When dealing with repair, we cannot leave out the turn-taking system, as the way in which turns are sequenced provides the resources for its repair. Thus, turn-taking and repair are closely related in the process of on-going personal talk, and are two key areas in CA.

In the following two sections (2.2.3 and 2.2.4), the literature cn the principles of turn-taking and repair are reviewed. And in a later section of the chapter, the literature on repair organization is considered in greater detail.

2.2.3 Turn-taking —Sacks et al.'s (1974) model

Turn-taking has been described as a generic organization of conversation with the aim of achieving speech-exchange systems – 'one at a time while speaker change recurs' (Sacks et al., 1974, p. 726).

Turn-taking organization contains 'turn' (and 'turn-constructional unit') as the basic unit and, in that sense, 'turn' can be treated as a building block which is a foundation of conversation. Because one person speaks, then another speaks, the information embedded in each turn of a conversation is 'used like bricks and mortar to *build* a scaffold for constructing shared knowledge that is accessible to all interactants' (Winiecki and Chyung, 1998, p. 452). Consequently, 'turn' is the basis of Conversation Analysis. Schegloff (see Prevignano and Thibault, 2003, pp. 166) stresses that:

> the basic issue for parties to interaction is 'why that now', and the default answer for participants has to do with what a speaker or another participant is doing by talking or conducting themselves otherwise (i.e. in physically-realized conduct) in the way they are. Its centrality for interactants mandates the centrality for CA of understanding how that works.

The principles of the conversational construction of turns at speaking, and the way in which they are systematically allocated, is established firstly by Sacks et al. (1974), and can be summarized as follows:

The system has two components: a turn-constructional component and a turn-allocational component.

i As regards the turn-constructional component, a speaker can use various, syntactically defined unit-types (e.g. sentence, clause, phrase or lexicon) to construct a turn. Completion of a turn unit constitutes a potential transition to another speaker. Sacks et al. state that:

As for the unit-types which a speaker employs in starting the construction of a turn's talk, the speaker is initially entitled, in having a turn, to one such unit. The first possible completion of a first such unit constitutes an initial transition-relevance place. Transfer of speakership is coordinated by reference to such transition-relevance places, which any unit-type instance will reach' (1974, p.703).

ii As for the turn-allocational component, there are three rules for operation of the turns at transition-relevance places, which mean the current speaker can:

a Select the next speaker (e.g. by directly addressing a question to him/her).

If the current speaker exercises this option, the person so selected has a right and an obligation to take a turn at talking. However, if the current speaker passes up this option, rule (b) may operate.

b Let another speaker self-select.

If neither rule (a) nor rule (b) operates, then rule (c) may come into operation.

c Continue.

For turn-allocational system, Sacks et al. suggest that the current speaker can exercise three degrees of control over the next turn. Firstly, the current speaker can select which participant will speak next, either by naming him/her or by alluding to him/her with a descriptive phrase. The second option for the current speaker is simply to constrain the next utterance, but not select the next speaker; while the third option is to select neither and leave it to one of the other participants to continue the conversation by selecting him/herself. Sacks emphasizes that these options are in an ordered relationship — the first over-rides the second and the second over-rides the third (cited in Coulthard, 1985, p. 60). So, the argument is that there are several ways in which speaker change can be organized: a next speaker can be selected by the prior one, a speaker can self-select, or the present speaker can continue speaking; and, according to Sacks et al., these options are hierarchically organized: current speaker

selection goes before another speaker self-selection, which goes before the current speaker's continuation.

More detailed analysis of turn-taking in face-to-face conversation considers these principles in a more complex fashion. For example, gaze, gesture and body orientation have been analysed as integral parts of the participants' conduct in talk-in-interaction (e.g. Hayashi, Mori and Takagi, 2002).

Sacks et al.'s (1974) fundamental model for turn-taking organization for CA has been examined in various contexts of conversation, and some critical arguments have arisen. For example, Houtkoop and Mazeland (1985) argue that Sacks et al.'s model cannot be applied to explain all turn-taking behaviour – in particular in some larger units of talk, where a speaker not only has the right to take a turn which is constructed out of more syntactical units, but also has the right to take as many turns as necessary to finish the project (pp. 596–97). After examining larger units of talk, such as stories, jokes, extended descriptions and pieces of advice, which are referred to as 'Discourse Units' (DUs), Houtkoop and Mazeland (1985) distinguished between Closed DUs and Open DUs, as follows:

> Closed DUs are activities larger than a one turn-constructional unit and are accomplished by a Primary Speaker holding the floor through the course of their production. Whereas closed DUs are projected as DUs from the beginning of their production, open DUs are not. They develop as a DU by virtue of negotiation on the type of conversational unit underway. That is to say, whether or not the turn will be built into a larger project is more dependent upon the recipient than is the case for Closed DUs' (p. 595).

Houtkoop and Mazeland's argument on larger projects may be helpful in understanding the discourse of Web-based discussion because, when DUs appear in the Web-based discussion board, they are usually larger units than in face-to-face oral discussion and Closed DUs. So, to some extent, it may be found in this study that some special features of repair organization which occur in a Web-based conversation setting can be understood in terms of 'discourse units', contrary to Sacks et al.'s model.

It should be mentioned here that, although the features of the turn-taking system in Web-based conversation not investigated in detail in the present research, again it is fundamental work in CA. Consequently, as the area investigated in this study — the application of CA to Web-based conversation focusing on repair organization — operates within a turn-taking system, the above review of the basic literature on turn-taking is necessary.

2.2.4 Repair — Schegloff et al.'s (1977) framework

The framework for repair organization, which is the major area of research in this thesis, is reviewed in detail in a later section (2.4). Here, it is just outlined as basic background to the field.

The term 'repair' was first introduced by Schegloff et al. in an article in 1977. In the article (p. 361), they address issues related to recurring problems in speaking, hearing and understanding, and examine how speakers correct mistakes or errors occurring in conversation. In order for the analysis to have more general applicability, they introduced the term 'repair', which involves not only the replacement of mistakes and errors, but also imagined mistakes, misunderstanding, mishearing, even non-hearing, or self-editing to make the expression more exact and precise.

Repair plays an indispensable role in conversation as a 'self-righting mechanism for the organization of language use in social interaction' (Schegloff et al. 1977, p.381). Existing literature in CA has given strong indications of a fundamental form of organization in conversation which provides mechanisms for participants to deal with a wide variety of troubles in speaking, hearing, or understanding talk-in-interaction. These range from an inability to access a word when needed or to articulate it properly, to passing problems in hearing (e.g. due to ambient noise), to variously based problems of understanding; so, the 'troubles' thus include various classes of problems and a virtually unlimited array of 'sources' or 'causes'. The self-righting mechanism of repair allows talk-in-interaction to keep itself going in the face of such 'problems'. However, as Schegloff (1997a, p. 503), points out, the scope of 'repair' does not include *all* practices addressed to problems of understanding (like understanding

exactly how the Internet works), just the narrower domain of 'understanding what someone has just said' (though the boundary between these can, of course, be rather fuzzy).

The core concepts of 'repair' in the framework of Schegloff et al. (1977) and other work by Schegloff can be described as follows:

Initiation and outcome

The organization of a repair activity is composed of two parts, of which one is most importantly a repair *initiation*, and the other is a repair *outcome*. The initiation marks possible disjunctions with the immediately preceding talk, and the outcome includes solutions or abandonment of the problem.

According to Schegloff (1997a, p. 503), the features of repair initiation have two dimensions:

> First, there is the matter of *who* initiates repair. The organizationally relevant way of understanding this is to differentiate between repairs initiated by the *speaker* of the problematic talk (what we refer to as 'the trouble-source' or 'repairable') and those initiated by anyone else — self-initiation and other-initiation respectively.
>
> Second, there is the matter of *where* repair is initiated. This too is organized by reference to the trouble-source, with virtually all repair that gets initiated being launched in a very narrow window of opportunity *around* the trouble-source — specifically in the *same* turn that contains the trouble-source or just after it, in the *next* turn following the trouble-source turn, or in the turn following *that*.

The two dimensions of the organization of repair mentioned above are related. Virtually all repair initiated by someone *other* than the speaker of the trouble-source — referred to as *other-initiated repair* — is initiated in the next turn after the trouble-source turn. *Self*-initiated repair, on the other hand, occurs in all the other positions (Schegloff, 1997a, p. 503).

At its simplest, a repair sequence starts with a *repairable*, an utterance that can be reconstituted as the *trouble source*. It should be clear that any utterance can be turned into a repairable. The initiative can be taken by the speaker of the repairable, which is called a '*self*-initiated repair', or others can take such an initiative, which is called an '*other*-initiated repair'. The repair itself can be done by the original speaker (the trouble maker), which is called '*self*-repair', or by speakers other than the trouble source speaker, which is referred to as '*other*-repair'. The place for initiating a repair can be in the same turn by the trouble source speaker him/herself— referred to *same-turn* initiating, but can also be in the next turn.

Other-initiated repair is used by a hearer to indicate to the prior speaker that he or she has trouble in hearing or understanding an utterance or part of the prior speaker's utterance. Conversation analysis research (Schegloff et al., 1977, p. 365; Schegloff, 1992) has established that the repair sequence is an adjacency pair consisting of two parts. The first pair part is the repair-initiation turn which displays trouble in hearing or understanding the preceding turn; usually, this is done with a question. The trouble-source turn speaker usually replies to the repair initiation. In some multi-person interactions, a speaker other than the trouble-source turn speaker provides a second pair part before the trouble-source turn speaker responds (Egbert, 1997, p. 613).

Sometimes speakers 'repair' their utterance even when there has been no breakdown in communication or any apparent error (Schegloff et al., 1977). The most obvious example is a word search on the part of the speaker or when the speaker uses a different expression. A speaker can also use the 'transition relevance place', just after an utterance is completed, to initiate self-repair. Another type of repair sequence emerges when a turn's recipient reacts to it in a way that demonstrates some kind of misunderstanding, after which the original speaker, recognizing the trouble from the response, initiates repair on his or her previous turn in 'third position' (Schegloff, 1992). These would all be cases of self-repairs.

Because of their interactional and sequential features, other-initiated repairs have attracted special interest from Schegloff and his colleagues. These repairs are initiated by the hearer of some utterance, who has had, or at least claims to have had, some problem in hearing or understanding it.

Preferences in repair

There seems to be an order of importance or preference in how people carry out repairs, and this order is closely connected to who starts the repair (self or other), and who accomplishes the corrective work (self or other).

The idea that there is some preferred response to some types of utterance, which is called preference organization, was first put forward by Schegloff et al. (1977), as they found that self-initiated self-repair is preferred to other-initiation other-repair. Listeners do not usually initiate a repair as soon as they have detected some deficiency in speech. They wait for some time for the speaker to initiate it him/herself. Only when the speaker fails to repair during a certain waiting period do they then start to initiate it. Schegloff and others consider other-repair to be highly constrained, and Levinson (1983, p. 342) argued it is 'a rare event'. However, as will be seen later in section 2.4.7, examination of various data from different languages, such as Chinese, and a review of the issue from different perspectives has raised the question of whether self-repair is a universal preference, or is language- or culture-dependent. Though this study does not explore language or cultural factors in depth, its results may still provide a relevant example for further study or comparative study in this area.

2.2.5 Significance of number of participants in conversation

Conversation can only take place when two or more interactants participate. For example, the conversation setting for this study is groups of in-service teachers, which means the discussion is between a number of people. A question therefore arises about the ways in which conversational mechanisms and their structures are sensitive to the number of participants. The question of how dyadic and multi-person interaction differ has been raised as a theoretical issue (Simmel, 1902, cited in Egbert, 1997, p. 612). More recently, this question has been examined in CA, based on tape-recorded data from everyday conversation, which show that communicative structures and interactional achievements can differ depending on the number of participants. In particular, differences between dyadic and multi-person interaction have been

addressed in the area of turn-taking (Sacks et al., 1974; Schegloff, 1995), and repair (Egbert, 1997). For example, Schegloff (1995, p. 31) argues that the detailed technical organization of talk-in-interaction is sensitive to the number of participants involved because the way they conduct themselves and understand each other's conduct is shaped in part by reference to the number of participants involved.

Studies further suggest the concept of 'parties' in conversation. As Schegloff (1995) says:

> Turn-taking is organized for any number of participants, but the number of participants is directly organized into the number of parties. Both can change. People can come and go in the course of talk-in-interaction, but, more directly consequential, even if that number stays the same, the number of parties into which those participants may be seen to be organized (because they *see* themselves so to be organized, and embody that stance in their conduct) can change continuously as the contingencies of the talk change, contingencies that are most centrally supplied by the participants themselves and the nature of the talk which they undertake with one another (p. 35).

> The number of participants or number of parties can have an impact on the features of conversational organization. In this regard, Levinson (1983) pointed out some dilemmas for the turn-taking mechanism in ordinary face-to-face conversation. For example, whatever the mechanism involved, it has to be able to operate in a variety of different circumstances: 'the number of parties may vary from two to twenty or more; persons may enter and exit the pool of participants; turns at speaking can vary from minimal utterances to many minutes of continuous talk; and if there are more than two parties then provision is made for all parties to speak without there being any specified order or "queue" of speakers' (p. 297).

In ordinary face-to-face conversation, a current turn is usually located in an orderly relationship to the prior turn. However, Web-based conversation, as this study will show, is a complex form of multi-person, multi-party conversation, and when there are more than two people talking, things could become somewhat more complicated. Multiple single conversations tend to go on simultaneously (see, for example, Egbert,

1997). The way in which these multiple conversations are managed exhibits key differences, but also some basic similarities, in the two contexts. The Web-based conversation for this study is situated in a group discussion setting which involves a number of participants, and the data are produced by a number of people in collaborative discussion. So the issue of the number of participants or parties needs to be borne in mind throughout this study.

2.2.6 Studies on Non-English conversation organization

Although the CA methodology and techniques mentioned so far in this chapter have arisen basically from reviewing English data, which may cause the findings to be in part culturally-specific, as noted before, 'the methods employed should be of quite general application' (Levinson, 1983, p. 296). In the last 20 years, a number of CA studies have been carried out using material from cultures and in languages quite different from English — as different as Swedish (e.g., Lindström, 1994), German (e.g., Egbert, 1996), Finnish (e.g., Sorjonen, 1996, 2001), Greek (e.g., Sifianou, 2002; Pavlidou, 2002), Thai (Moerman, 1988), Korean (e.g., Kim, 1993, 1999; Park, 1998, 2002), Japanese (e.g., Mori, 1994, 1999; Tanaka, 1999; Hayashi, Mori and Takagi, 2002; Hayashi, 2003), and others. There are also some studies on Chinese languages, which will be reviewed in the following section. As Schegloff argues, CA is 'not differentially suited to English, nor are there languages that we know about that resist analysis along conversation-analytic lines' (quoted in Prevignano and Thibault, 2003, p. 13).

As Tanaka (1999) indicates, recently attention has increasingly been focused on the question of whether the conversational organization that has been described is a universal interactive mechanism or if its basic structure is affected by variations across cultures and languages (p. 1). For example, Cook's (1989) research shows that turn-taking mechanisms, the way in which speakers hold or pass the floor, vary between cultures and between languages. There are particular signals, which enable speakers to get into — and to get out of — conversations, to pass the turn to somebody else, and these vary according to whom one is talking to and in what circumstances. These mechanisms 'cannot simply be lifted from one society (and thus from one language

via literal translation) to another (Cook, p. 53). Therefore, studying conversation in different languages, such as in Chinese in this study, can provide valuable evidence to assist in the understanding of conversation organization.

2.2.7 Studies on Chinese conversation

To date, only a few studies of Chinese have taken a CA approach, but the fact that such studies have been conducted at all is important. For example, Luke (1990) demonstrated how Conversation Analysis can be applied to Chinese (Cantonese) data, focusing on three Cantonese final particles, *la, lo* and *wo*; and Wu (1997, 2004) applied CA methodology to Chinese data, focusing on multiparty conversation and the use of the final particles *a, ei* and *ou* in Mandarin Chinese conversation. Also, Tao, Fox and Garcia (1999) studied tone-choice repair in Mandarin Chinese conversation based on 120 instances of repair from a corpus of the Beijing dialect. While some studies are discourse analysis in orientation, others have explored the recurrence of forms and structures in Chinese conversation from a CA perspective. For instance, Zhang (1998) presented an intensive study of the organization of repair in Chinese conversation; and Li (1994) examined three-turn structures in Chinese job interview settings. As mentioned earlier in this chapter, Zhao (1996) studied repair organization in Chinese academic discussion, and reported that, although self-repair made up a majority of the events, other-repair was not as rare an event as some research on face-to-face conversation in English has suggested (e.g., Levinson, 1983, p. 342); at least the frequency of other-repair varies with the type of conversation, the content of conversation, or the situational context (cited in Jiang, 2000, p. 268).

Chui (1996) examined the organization of repair in Chinese conversation, focusing on self-repair only. He classified Chinese self-repair into six major patterns: repetition, completion, replacement, addition, reordering and abandonment (pp. 346–50), and found that the patterns of adding or reordering constituents were less commonly used for self-repair (p. 351). Although Chui's investigation has made a contribution to the study of repair patterns in Chinese which will be reviewed in detail in the late section (2.4.5), it not only excludes the examination of other-repair but is also limited to the syntactic environment, which is not within the scope of this study.

Li (2001) identified 508 repair cases from 14 hours of tape-recordings of ordinary conversation between Chinese people, and found that there were 395 (77.76%) self-repair cases. It seems that Chinese also prefer self-repair to other repair. However, Li (2001) noted that among the 508 repair cases, self-initiation occurred in 246 (actually, it should be 243 – the thesis author's note), while other-initiation occurred in 265 of the cases (52.17%) — which means that self-initiated repair did not occur in most cases. In other words, according to these figures, it cannot be said that Chinese speakers have a preference for self-initiated repair.

Zhang's (1998) study of the organization of repair in Chinese conversation reported that 'repair organization in Chinese data is generally comparable to Schegloff et al.'s (1977) American English data in terms of the techniques and positions of repair initiations and the trajectories from repair initiation to repair outcome.' (p.1)

As the above review shows, there has been some research on Chinese Conversation Analysis but, to date, no such research seems to have been carried out on Web-based conversation in Chinese. This study appears to be the first in this area.

2.3 Computer Mediated Communication

The literature on Computer Mediated Communication (CMC) related to this study raises several areas of debate, such as: Is the language form used in Web-based conversation written or spoken? Can it be called 'conversation'? Is the turn-taking in a Web-based conversation an 'artefact'? What are the principles of conversational organization in CMC? The literature related to these issues is reviewed in detail in the following sections.

2.3.1. Written or spoken

Is language use in CMC written or spoken? The fact that so many researchers have chosen to study this issue is interesting in itself. An examination of linguistic characteristics reveals that CMC is similar in nature to both spoken and written language (e.g., Zuboff, 1988; Poster, 1990; Mason, 1993; Yates and Orlikowski, 1993; Collot and Belmore, 1996; Yates, 1996; Crystal, 2001). Crystal (2001) emphasized that CMC 'relies on characteristics belonging to both sides of the speech/writing divide, and in many of its functions, the Web is no different from traditional situations which use writing … . At the same time, some of the Web's functions do bring it much closer to the kind of interaction more typical of speech, with a consequential effect on the kind of language used' (pp. 28–29).

The reason why language use in CMC can have the functions of both writing and speech is that it selectively and adaptively displays properties of both. According to Crystal (2001, pp. 25–28), speech is 'typically time-bound, spontaneous, face-to-face, loosely structured socially interactive, immediately revisable, and prosodically rich', while writing is 'typically space-bound, contrived, visually decontextualized, factually communicative, elaborately structured, repeatedly revisable, and graphically rich'. As a form of communication, language use in CMC cannot, therefore, be identical to either speech or writing. Some writers have even called such language use 'written speech' (e.g., Elmer-Dewitt, 1994); and Davis and Brewer (1997, p. 2) say that 'electronic discourse is writing that very often reads as if it were being spoken — that is, as if the sender were "writing talking"'.

In studying the written form used in CMC, Lapadat (2002) notes that the messages have some of the characteristics of spoken language, in that 'they are interactive, relatively informal, personalized, and audience-aware, with synchronous messages being more speech-like and asynchronous messages being more formal and conventional'. As writing composition typically demands higher-order thinking processes, there is great potential for conceptual change. Also, participants writing in CMC need to provide contextual information explicitly, and they are able to look back or to incorporate others' contributions into what they are writing; thus meanings are socially negotiated, and cohere across the discourse.

To some extent, context affects language use in CMC. For instance, Gains (1999) compared two kinds of English email messages in the United Kingdom — the first from the business sector and the second from an academic society — and found standard written English in the commercial data and conversational features in the academic data. (This may provide some evidence for the premise of this study that academic discussion in the Web may be more conversation-like.) Also, Murray (2000) argues that if one takes the social aspects rather than the technology as a priority, one finds that people use linguistic modes and features appropriate to their particular context. 'As with both written and spoken discourse, CMC is affected by the numerous social structural and social situational factors which surround and define the communication taking place' (Yates, 1996, p. 46).

Though CMC displays properties of both the written and the oral, as mentioned above, it is more than an aggregate of spoken and written features. Crystal's view is that language use in CMC is something genuinely different in kind: it is 'speech + writing + electronically mediated properties' (2001, p. 48). He argues that it is more than just a hybrid of speech and writing, and that electronic texts, of whatever kind, are just not the same as other kinds of texts. They have several properties — for example, 'they display fluidity, simultaneity (being available on an indefinite number of machines) and non-degradability in copying' — which have consequences for language; and, when combined with the properties associated with speech and writing, they make language in CMC a genuine 'third medium' (ibid).

While Web-based discussion uses language in written, not spoken form, it is clear enough that, in the give-and-take of talk, the writing in Web-based discussion also has the features of an interactional conversation. As Nystrand (1986) points out:

> When readers understand a text, an exchange of meaning has taken place. The writer has spoken to the readers. The turn-taking is merely the way conversants *accomplish interaction*. When each conversant does certain things (e.g., takes turns), the result is intelligible, meaningful communication. Similarly, when writers do certain things and readers do certain other things, the result is lucid, comprehensible text. Writing is no less interactive than speech in either principle or practice. (p. 40)

This is a very clear statement that the written form of language use can have the same interactive function as the spoken form does. Thus, the written form of language in the Web can also function for talk-in-interaction.

The literature outlined above is helpful for understanding the situation of Web-based discussion and the language used within it, and must be taken into account in the present study when exploring in detail the features of the organization of Web-based conversation.

2.3.2 Technologized interaction

Some writers (e.g., Hutchby, 2001) argue that, with the high-profile phenomenon of the Internet, we are currently entering a phase which might be called 'technologized interaction'. Also, patterns of talk-in-interaction change as people adapt to new circumstances and possibilities for talk. For example, Poster (1990) comments that 'the writers who begin to work with computers report their astonishment at how much easier many aspects of the process of writing have become or that writing is now very like speaking' (p. 111). Also, the computer conversation 'extends the domain of writing to cover situations that were previously limited primarily to telephone, mail or face-to-face interactions' (Mason, 1993, p. 7).

Such being the case, there is no doubt that some major oral discourse strategies must exist within CMC, which appears to have obvious oral speech characteristics from the perspective of linguistics. Some questions have therefore been raised about technologized interaction – CMC in particular. For example, what aspects of human conversation are embedded in CMC? What effect does the design of the technology have on human communication through computers?

It is not surprising that turn-taking in Web-based conversations is a likely 'artefact', because this kind of conversation is in a written form, which supports 'a unique expression of human communication: written interaction' (Mason, 1993, p. 3). It has been argued that writing is completely artificial in ways that speech is not: oral speech is a fully natural facility in humans, whereas writing is consciously contrived. Nevertheless, as Mason pointed out, written communications are clearly a valuable resource, a fact which more and more users of electronic communications systems are discovering (Mason, 1993, p. 13). Also, as Ong (1982) notes: 'To say that writing is artificial is not to condemn it but to praise it. Like other artificial creations, and indeed more than any other, it is invaluable and indeed essential for the realization of a fuller, interior, human potential. Technologies are not mere exterior aids but also interior transformations of consciousness, and never more than when they affect the word' (p. 82).

Actually, the technological artefacts themselves can be seen as 'participants' in the interaction, in that the words or pictures on a screen can be viewed as 'contributions' (Hutchby, 2001). So, as this study will show, the technology as 'participant', as well as human beings, can make errors or mistakes which need to be repaired.

Artefact interaction made by computer technology causes some notable differences from human normative conversation. As we know, one of the most important discoveries made by Sacks and his associates, according to their English data, is that people take turns at talking: in a given conversation there is only one person talking at a time, and only when that person stops will another person begin to talk; 'gap' or 'overlap' is not common (Sacks, et al. 1974, p. 700–1). In CMC, Web-based conversation in particular, this rule for conversation is actually presented not by people's speech actions as in most asynchronous situations, but by the technical

system, which allows only one person to speak at a time (actually, only one speaker can be received at a time). Any overlap will never show on the screen, even if it has actually happened, whereas silence will be long compared with an oral conversation situation. Examination of the effects of these differences to discover any new elements or factors that influence the organization of Web-based conversation is important. It may, for example, help us to understand more about the nature of Web-based talk-in-interaction and its potential applications for educational purposes, and to discover appropriate ways to help students and tutors keep track of the threads in a prolonged asynchronous discussion.

This review of the literature on so-called 'technologized interaction' shows that conversation on the Web involves a shift in its features due to the impact of the technology. There is no doubt that technology must have an impact on repair organization in Web-based conversation, the subject of investigation in the present study. Although this study does not explore any issues specifically related to technology or software design, the impact of technology on the data cannot be prevented as the data have already been created in a specific technological environment, and it should be retained in mind throughout the process of the study.

2.3.3 Analysis of Computer-Mediated Conversation — previous work

Some researchers who have analysed CMC from a conversation analysis perspective have identified differences operating in CMC interaction. For example, Murray (1985, 1989) examined turn-taking in CMC to determine how it differs from Sacks et al.'s (1974) model and found six characteristics or principles for interactants coordinating conversations when using computers as a medium:

1 The sender may make a second move before receiving a response to the first. It is noted that Murray used 'second utterance' in 1985 (p. 213), and changed the phrase to 'second move' in 1989 (p. 326).
2 A recipient may not respond to an utterance. Two factors operate as the cause of this. First, responding to the utterance would deflect the recipient from his/her goal-driven plan (Wilensky, 1983). Second, the retention of the message on the screen is for the duration of one screen only. Thus,

computer conversations resemble both the transience of speech and the permanence of writing (1989, pp. 327–28).

3 A message may interrupt a turn or move. The sender may continue with the move or, as a result of the message, abort the move or change it (1989, p. 328).

4 Opening and closing adjacency pairs are absent. Most messages do not begin with a greeting; and closings are not negotiated as in face-to-face conversation (1989, p. 329).

5 Naming addressees does not operate as a turn allocation technique. In computer conversation, occasionally a sender will address the recipient by name. As the message only goes to the one recipient, this is not done to signal the addressee and thus allocate turns as in face-to-face conversation, but is used to indicate role (1989, p. 330).

6 Tag questions do not serve as exit devices as they do in face-to-face conversation. Because turn-taking does not have to be allocated in computer conversation, tag questions are redundant (1989, p. 331).

Murray's study was based on data collected from a synchronous conversation, and did not examine an asynchronous conversational situation that uses a computer as a medium. It also took place in a special workplace situation with a pair of participants' conversation. As a result, her outline of the characteristics of turn-taking may not be a universal feature of the organization of all types of computer mediated conversation, and in particular, it may not be adequate for characterizing asynchronous Web-based conversation for a group of participants. After analytic work, Murray argued that turn-taking analysis may not be suitable for CMC. However, as has been seen, Murray actually employed the method to deal with her data and eventually reached conclusions (e.g., the six characteristics) from it. So her conclusion that the analysis did not reveal anything seems to be contradictory. Furthermore, although Murray (1991, 2000) shifted her focus and adopted the theory of speech acts to examine CMC in her later work, she still holds the view that CMC is a kind of conversation, and has 'its own norms for organizing conversation and accommodating threads of discourse' (2000, p. 397). This also appears to contradict her own position on the application of CA to CMC, because if CMC has its own 'conversation organization', how can turn-taking as the fundamental organization for conversation disappear from CMC? And

why can't the analysis of turn-taking in CMC be used to find what happens in CMC? In this study, it is not intended to debate whether or not Murray recognized that any rules or principles for turn-taking exist in conversation; it merely attempts to take her experience into account in analysing the characteristics of a particular organization (i.e. repair) in CMC to find something new in Web-based conversation.

Murray was one of the first researchers to regard CMC as one form of conversation and apply CA in the analysis of CMC (whatever conclusions she eventually drew). Though she did not study a wide range of CMC continuously from the CA perspective, her work laid the foundations in this area; and, following her lead, others have entered this field. For example, Hutchby (2001) has applied CA to study the relationship between technologies and human communication and has attempted to argue for a particular method of studying communication and a particular way of conceptualizing technology, which together help us to understand how technologies can affect the interactive social world and how humans can find ways of managing their impact. For example, he indicates that there are four specific constraints which serve to distinguish Internet Relay Chat, a form of synchronous CMC interaction, from the normative order of ordinary conversation:

> 1 Participants can only 'take a turn' in the ongoing conversation by typing something in their talk-line box and pressing <Enter>.
> 2 That 'turn' only reaches all others on the channel once it has been accepted and distributed by the server (temporal lag).
> 3 There is a difference between a turn's course of production (typing in) and its public 'enunciation' (sending), such that other turns may appear in the interim which disrupt the turn's sequential relationship with its intended prior.
> 4 While all this is happening, the conversation is going on in a scrolling window on the monitor screen; which means that, on occasions of high traffic through the server, the prior contribution to which a turn is tied may have scrolled off the screen by the time the second contribution appears.
>
> (Hutchby, 2001, pp. 183–84)

The examples above are studies of turn-taking in CMC. Unfortunately, there have been very few studies on the other core issue of CA — repair organization in CMC. The example on this aspect can be Raudaskoski's (2003) case study on a conversation at a computer tutorial, where the situation included two participation frameworks: human–computer interaction and human–human interaction. It was found that anything in the conversation can be a repairable. The concept of 'repairable' extends to the physical actions of the participants, as their movements, such as clicking or pressing, can exhibit their interpretation of what is on the screen or the other participant's talk. Raudaskoski's (2003) study shows that the situation of computer use analysed had many instances of repair: the participants repaired each other's interpretation of the situation, and the system (or rather its designers), and attempt to mimic second-position repair initiations. This kind of argument returns to the topic of 'artefact turn-taking' and technologized interaction, which was reviewed earlier.

2.3.4 Nature of asynchronous Web-based conversation

Having reviewed the general literature on computer conversations, which mainly related to synchronous interaction, this section focuses on the literature dealing with the issue of asynchronous interaction.

When comparing asynchronous Web conversation with face-to-face conversation, Crystal (2001, p. 135) posits that 'each contributor leaves a linguistic "footprint", in that what is said has a permanent pragmatic effect. In face-to-face communication, pragmatic effects are typically immediate and direct, but in an asynchronous list, the effect of a contribution is preserved over an indefinable period of time, … as long as there is interest in it'.

The other feature highlighted by Crystal (2001) is that Web interaction is non-linear. He notes that, just as we can 'dip into' a book, so we can also 'dip into' a group. When joining a group, we can call up a recent or distant topic, then begin with any postings in which we are interested —there is no given chronological starting-point. As it will be seen in Chapter 3 (3.2), the Web-based discussion board in this study has an index function which can classify postings by topic title, date and author within directories. Within a topic, there is a stronger sense of chronological linearity, as

messages are organized in the order in which the server received them. However, as Crystal (2001, p. 137) points out, this is a presentational linearity only, and has no communicative consequence. For example, there can be no guarantee that a sender E, responding to message A, has read any of the messages (B, C, D) which may have been sent to the group in the interim period. Indeed, E does not know whether A will read his/her response — or, indeed, whether anyone ever will. Also, A may have logged off by the time E responds; and a cluster of other messages may come in, so that when A next logs on, E's message may be so far back in the queue that it will not be noticed. Because there is no obligation for E to respond and no expectation on A's part that E *will* respond, A may not go looking for it.

Open access to the floor, leading to multi-directional conversations, is another characteristic of Web-based interactivity. In asynchronous conversation, real-time linearity and capacity constraints are relieved, easing the pressures of bidding for and trying to hold the floor. Also, as asynchronous conversation is not limited by 'real time', and all participants have equal access to the floor, and can say as much as they wish on their own time, 'there is a greater possibility of incorporating all participants' perspectives and taking topics to completion' (Schallert, Dodson, Benton, Reed, Amador, Lissi, Coward, and Fleeman, 1999, quoted in Lapadat, 2002).

Besides the above arguments regarding asynchronous Web-based conversation, and the examination of the writers/speakers' participation, there is another important element in the situation — the fact that there is a real reader/audience. As Lapadat (2002) says, an audience of peers, who are predisposed to read what one writes and also to respond, with characteristics built in via the design of the on-line asynchronous interaction, 'creates a joint focus on academic topics of mutual interest, and thus a crucible for the social construction of meaning'. The fact that participants in on-line asynchronous interaction are writing for a real audience of their peers motivates them to make their expression clear. Therefore, Lapadat (2002) argues that asynchronous Web-based conversations (conferences, in his case) place a high premium on good writing, and as participants try to put their thoughts clearly, they will take their time, reflect, consider their audience's perspectives, and use critical and higher-order thinking skills.

The Web-based discussions examined in this study share the same features as the Web-based conversations outlined above.

2.3.5 The application of CA to Web-based conversation

The literature on both CA and CMC has already been reviewed in earlier sections. We now consider the combination of these two areas by looking at relevant work on the application of CA to CMC.

As has already been seen, Conversation Analysis (CA) has become a powerful method for analysing meaning-making or interpretation as a sequential phenomenon in authentic face-to-face or telephone conversations (Raudaskoski, 2003, p. 109). Because researchers from different disciplines have used it as a means to study language use in various contexts and in different situations, the author was motivated to try to employ CA theories and methodology when dealing with the data from the Web. However, in Web-based communication, the medium and also its asynchronous written interaction are very different from ordinary face-to-face oral conversation, which is what is usually studied in traditional CA. The application of CA to Web-based conversation might be regarded as not falling within the scope of Conversation Analysis, or at least being at its outer margins. However, Web conversation has created huge amounts of text in modern society, and has attracted great attention and interest, because texts are one type of language use, and their production or reception is often an essential part of a '(situated) activity system' (e.g., Goodwin and Goodwin, 1987) or 'multi-party interactives' (Goodwin, 1996) — that is in collaborative action in which semiotic fields are an important resource (Raudaskoski, 2003, p. 109). Although the role of texts, particularly of texts as one form of talk-in-interaction appearing on a computer screen, has not been of primary interest in CA, as we have seen there have been some studies of people using computers as the medium of communication to conduct interactive conversation. As well as the work reviewed in previous sections, here is another example of the application of CA to the analysis of text produced by computers. Raudaskoski (2003) is interested in how a CA analysis can reveal about the user-readers' interpretation of electronic texts. In a case study of two people using a computer tutorial, he examined how participants in a situation

which involves texts interpret them, and how the text's appearance on a computer screen —which may be either static or shown according to the user's actions —affects the user-reader's interpretation.

Conversation analysis is characterized by the view that there are discoverable rules, procedures and conventions which underlie the orderly production of talk in interactional circumstances. These conventions comprise a form of social organization which makes for the possibility of mutually intelligible communication. So discovering the interactional organization of CMC is an important area of study.

When conducting interaction analysis in CA literature, the techniques used include establishing a pattern, deviant-case analysis, and single-case analysis, although they are not strictly separable (e.g., Levinson, 1983; Heritage, 1984, 1988, 1995 and 2003; Schegloff, 1987a, 1988; Drew and Heritage, 1992). Quantitative analyses have been used more recently in the study of interactional phenomena (Schegloff, 1993; Heritage, 1995; Ford and Thompson, 1996; Tanaka, 1999). All of the methodologies and techniques mentioned above can be applied to interactional analysis in the situation of Web-based conversation, as computer-mediated conversation is an example of natural conversation despite its being conducted in both a special form and a special setting other than 'face-to-face', 'synchronous' and 'oral speech'. As technical and methodological issues concerning the linking of CA to Web-based conversation will be discussed in detail in the next chapter, here it is simply emphasized that the application of CA to analyse Web-based conversation is feasible in both theoretical and practical respects.

2.3.6 Terminology in this study

The definition of the term 'conversation' and other terms in CA tradition have been reviewed, and this section gives an account of some specific terms used in this study.

Web-based conversation

As communication through the Web or the Internet appears to have similar basic features to Sacks et al.'s (1977) observations on ordinary conversation mentioned

previously, and are already viewed as a type of 'conversation' (e.g., in the work of Murray and others), the term *Web-based conversation* seems to be appropriate for the properties this study is going to examine.

Murray (1991, p.81) argues that, just as different disciplines have interpreted language variation differently, they have also interpreted the object of language study differently — and that these differences are reflected in their use of terminology.

Web-based discussion, the case in this study, is one form of interactive electronic communication or CMC. The term *Web-based conversation* focuses on how participants use language to participate and organize the conversation to exchange ideas rather than on the medium or channel by which they transfer and deliver their messages. Using this term emphasizes our focus on language above the sentence level — 'on language as utterances' (Schiffrin, 1994), whether written or spoken; and actually the written form of language can be treated as the spoken form and, as we have seen, even be called 'writing talking' (Davis and Brewer, 1997, p. 2).

There are many terms for language used on the Internet and the Web — for example, 'Netspeak', 'Netlish', 'Weblish', 'Internet language', 'cyberspeak', 'electronic discourse', 'electronic language', 'interactive written discourse', 'computer-mediated communication' (CMC) and 'Webspeak'. Though each term has a somewhat different implication, as Crystal (2001, p. 18) observed, 'discourse' and 'speak' are terms commonly used to describe the written form of language in Computer Mediated Communication (CMC). Therefore, in this study, 'writers' in the discussion board are treated as 'speakers'; and the postings they make are viewed as 'utterances' or 'speaking'.

Because CMC refers to any human–human communication mediated via a computer, the Web-based discussion in this study is one mode of CMC. So, in this research, the term CMC is used to indicate the general situation, while the specific terms 'Web-based conversation' or 'computer conversation' are adopted for stressing the analysis of elements of the conversational structure or organization — as long as we remember that 'conversation' here involves writing, as well as reading, and is constructed

through the online interactive exchange of messages between a number of participants asynchronously.

Utterance, Message, Turn and Posting

Other terms used in this research must also be clarified to indicate specifically how they are being used. With reference to the turn-taking system, it is necessary to distinguish between 'utterance', 'turn', and 'posting', especially related to the Web-based conversation. In this sense, Murray's (1985) definitions of terms used in CMC can serve the purpose for this study:

Utterance is a stretch of uninterrupted text; while *turn* and *posting* refer to the sender's intended whole utterance. In oral conversation, utterance and turn are usually conterminous. Murray (1985, p. 212) argues that 'turn' is not a suitable way of describing the organization of computer conversation; turns can consist of more than one message and/or more than one utterance. However, in this study, the 'turn' is treated as the same as a single posting, which is sent by the sender once. In other words, once the sender has sent his/her text by computer, the sender has taken a 'turn'. No matter how many messages the posting comprises, or even if it is incomplete, it is still considered a single 'turn'. In this sense, 'utterance' and 'turn' are conterminous in Web-based conversation, and consistent with 'posting'.

2.4 Repair organization

Section 2.2.4 outlined the literature on repair as one of general domains for Conversation Analysis. This section looks at the literature in this area in more depth in order to provide the theoretical and practical underpinning for the present study.

As discussed earlier, in every talk-in-interaction, it is common for participants to need to deal with some troubles, such as errors, mistakes, misunderstanding or mishearing and so on, in on-going talk. A participant often needs to correct something another has said. The most successful attempt to develop a description of the corrective sequence for language in interaction is the work on repair in Conversation Analysis. In particular, the mechanisms through which participants repair themselves or each other have been described as regular and predictable.

Repair organization is one of the most important components in CA work. Whatever the kind of conversation, recurrent problems cannot be avoided in the process (i.e. in speaking, hearing, and understanding), and repair is the only way to remove such problems. As noted before, as a 'self-righting mechanism', repair allows talk-in-interaction to continue in the face of 'problems', and so conversational repair plays an indispensable role in the interactive use of language.

Since the concept was introduced, there has been a growing interest in repair phenomena in CA work. Studies on repair range over a variety of issues, including: the characteristics of repair organization (Schegloff et al, 1977; Moerman, 1977; Schegloff, 1979; 1992); the frequency of occurrence of particular types of repair (e.g., Schegloff, 1987b; Drew, 1997); the interactional sequence of particular forms of repair (Jefferson, 1974; Goodwin, 1987; Besnier, 1989; Kim, 1993); and preferences in repair (e.g., Schegloff et al., 1977; Moerman, 1977; Zhao, 1996; Li, 1996; Li, 2001). Work in CA has also paid attention to the relationships between repair and syntax. Outlined below is a review of the literature on the theoretical framework for repair from different perspectives. Attention is directed in the main to the organizational features for repair, rather than the relationship between repair and grammar.

2.4.1 Repair via correction

As indicated earlier, the term 'repair' is first introduced by Schegloff et al. in an article in 1977, in which they discuss the question of how speakers correct mistakes which occur in conversation. So that the analysis would have more general applicability, they suggest that the term 'repair' should be used, instead of 'correction', as 'correction' is commonly understood to refer to the replacement of an 'error' or 'mistake' by what is 'correct': 'The phenomena we are addressing, however, are neither contingent upon error, nor limited to replacement' (Schegloff et al., 1977, p. 363). 'Repair' involves not only the correction of real errors or mistakes (see example [1]) but also imagined mistakes (see example [2]), misunderstandings (see example [3]), mishearing (see example [4]), even non-hearing (see example [5]), or self-editing 'word' (see example [6]). (The arrows in each example below indicate the occurrences of repair. About transcription conventions in the study, see Appendix I)

[1]

Ken:		Is A1 here today?
Dan:		Yeah.
		(2.0)
Roger:	→	He is? hh eh heh
Dan:	→	Well he was.

(Schegloff et al. 1977, p. 364)

After Roger, who is the speaker other than trouble source speaker, issues an initiation, Dan corrects the wrong word 'is' by replacing it with 'was'.

[2]

A:		I have a: – cousin teaches there.
D:	→	Where.
A:		Uh: Columbia.
D:	→	Columbia?
A:		Uh huh.
D:	→	You mean Manhattan?
A:		No. Uh big university. Isn't that in Columbia?

(Schegloff et al. 1977, p. 369)

As the university's name 'Columbia' can be confused with the name used for other places, D in example [2] has issued a repair initiation. It is obvious that A does not have any mistakes in his/her talk, but D imagines that there may be a mistake. Thus, a repair is sequenced in the conversation between speakers.

[3]

Annie:		Which one::s are closed, and which ones are open.
Zebrach:		Most of 'em. This, this, //this, this ((pointing))
Annie:	→	I 'on't mean on the shelters, I mean on the roads.
Zebrach:		Oh:.

(Schegloff et al., 1977, p. 366)

Zebrach provides a wrong answer to Annie, as Zebrach misunderstands Annie's question 'which ones are closed and which ones are open' as asking about shelters. Thus Annie accomplishes repair by pointing out Zebrach's misunderstanding and provides a correct sense of what she actually means: 'I 'on't mean on the shelters, I mean on the roads'.

[4]

A:		I thought you had a date with your boyfriend to go to a party.
B:		No I went to a shower.
A:	→	To a where?
B:		I went to a shower.

(Schegloff et al. 1977, p. 368)

After A talks about B having a date with her boyfriend to go to a party, B says that she went to a shower. A feels that she has not heard clearly or has misheard where B went, and so issues an initiation for B's repair by asking the question 'to a where?'

[5]

D:		Wul did'e ever get married'r anything?
C:	→	Hu:h?
D:		Did jee ever get married?
C:		I have // no idea.

(Schegloff et al., 1977, p. 367)

C's utterance 'Hu:h' shows that s/he does not hear the question 'Wul did'e ever get married'r anything?' D asks. D therefore has to accomplish repair by repeating his/her question.

[6]

Ken: → Sure enough ten minutes later the bell r-
→ the doorbell rang…

(Schegloff et al., 1977, p. 363)

To make the expression more precise, Ken chooses the word 'doorbell' to replace 'bell' he had just used in his utterance.

The examples above clearly illustrate that the occurrence and solving of problems are a common phenomenon in conversation. Problem-removing involves not only the correction of mistakes or errors, but many other kinds of action for solving problems in on-going talk-in-interaction. So, the use of the term 'repair' is more appropriate and meaningful than 'correct', as Schegloff et al. suggested.

2.4.2 Anything repairable

In the existing literature, what the repair addresses is referred to as the 'repairable' or the 'trouble source'. In section 2.3.3, reference was made to the case study of conversation at a computer terminal carried out by Raudaskoski (2003), which found that the concept 'repairable' extends to the physical actions of the participants, as their movements, clicking or pressing can show their interpretation of what is on the screen or the other participant's talk. Raudaskoski (2003, pp. 116–18) provides an example of the notion of 'repairable' in which 'Click-L' in the mouse tutorial becomes 'a trouble source'. In the case studied, 'Click-L' means to press and release the LEFT mouse button. As an instruction, 'Click-L' worked quite well in the tutorial, but at one point, one of the users in the tutorial clearly had an incorrect notion of what Click-L refers to (in the transcript in line 114 below, which is marked by an arrow, at which point B is going to press key l on the keyboard):

[7]

112 A: did you click l?
113 B: [no]

114 → [((hand towards l on the keyboard))]
115
116 A: [the left button?]
[((gaze to B))]

(Randaskoski, 2003, p. 116)

Line 114 above is a very strong indicator of what Click-L meant to B at that point: it refers to clicking l on the keyboard, but does not refer to the left mouse button. So the misunderstanding causes B's repairable action, and A's gaze occurs with his repair ('the left button?') of B's action.

This is just an example of misunderstanding as a trouble source for repair. Actually, anything in conversation can be repairable, as has been exemplified in a previous section, and is further illustrated in the following sections.

2.4.3 Possible structures for repair

Repair deals with problems occurring in ongoing conversational interaction. Thus, CA centres its analysis of repair on the structural sequencing of utterances. Repair organization is characterized by the following structure:

- who (self or other) initiates the repair;
- who (self or other) accomplishes the repair work.

'Self' refers to the speaker of the trouble source, and 'other' refers to anyone other than the speaker of the problematic utterance.

According to Schegloff et al's. (1977) observation, which has been re-examined by other researchers, successful repair sequences can take the following four possible structures (the examples of each type of structure are taken from a study by Zhang [1998] which investigated how repair works in Chinese, which may be more related to the present study. The English version for each example from Zhang's study is presented below, while their original Chinese versions are shown in Appendix II):

i Self-repair can issue from self-initiation:

[8]

Zhou: after the nap we got to gather in the
→ afternoon. We'd gather at one thirty – one forty, then we'd march …

(Zhang, 1998, p. 46)

In [8], the speaker Zhou uses a notable cutoff of the word 'thirty' as an initiation, then accomplishes a self-correction to 'forty'. It is an example of self-initiation self-repair.

ii Self-repair can issue from other-initiation:

[9]

1	Gong:		and last time there was, I mentioned that
2			magazine, which also talked in particular about
3			black people's hair
4	(?)		Yeah
5	Gong:		it's actually fake
6	(?)		Oh
7	Gong:		their hair is fake
8	Xin:	→	Ah? Black people's hair is fake?
9	Gong:		no, black people's long hair is fake, because
10			their own hair is always very short

(Zhang, 1998, p. 99)

At line 8, Xin indicates the problem in the prior turn in which Gong says that 'their hair is fake' as other-initiation, then Gong in line 9 accomplishes a self-repair. Obviously, this is a case of other-initiation self-repair.

iii Other-repair can issue from self-initiation:

[10]

1	Mei:	( )	well you always said you'd give me some of the what, you haven't given me yet.
2	Wu:		what?

3	Mei:	→	what's that, what's it called?
4	Wu:	→	nitre stuff ( )
5	Zhou:	→	hydride
6	Wu:		hydride
7	Mei:		ah, hydride

(Zhang, 1998, p. 176)

In [10], Mei has a problem in remembering the appropriate item in line 3, so she uses 'what's that, what's it called?' to issue an initiation inviting other-repair. Then Wu provides an item as a repair in line 4 which is further other-corrected by Zhou in line 5. This is an example of self-initiation other-repair.

iv Other-repair can issue from other-initiation:

[11]

1	Zhou:		hey, is your field related to hers in any way?
2			you study medicine and you psychology, the
3			two should be related I suppose.
4	Mei:	→	she studies <u>pharmaceutics</u>=
5	Wu:	→	=yeah I [study pharmaceutics
6	Mei:		[that has more to do with chemistry

(Zhang, 1998, p. 162)

In [11], when Zhou asks two friends about the connection between the subjects they study, Zhou proffers the two names of the subjects and supposes that there is a connection between them. Then Mei and Wu in lines 4 and 5 correct Zhou's error in the name of Wu's study area. This is a case of other-initiation other-repair.

Schegloff et al. (1977, p. 363) also introduced the concept of 'failure' in repair. 'Failure' refers to cases in which a repair procedure is initiated but does not produce a successful solution. Thus, while 'self-repair' and 'other-repair' refer to the success of a repair procedure, 'failure' refers to those efforts at repair which have failed. Self- and other-initiation can yield failure which also features in possible structures:

i Failure can issue from self-initiation:

[12]

C:		C'n you tell me-(1.0) D'you have any records
	→	of whether you-whether you-who you sent-
	→	Oh(hh) shit.
G:		What'd you say?
C:		I'm having the worst trouble talking.

(Schegloff et al., 1977, p. 364)

This example shows that C failed in repair after G issued a question about the trouble C made, i.e. a clear utterance has never been presented by C.

ii Failure can also issue from other-initiation:

[13]

Roger:		It's kinduva-//kinduv weird.
Dan:		heh
		(2.0)
Roger:		Whadda <u>you</u> think?
Ken:	→	Hm?
Roger:	→	Forget it.

(Schegloff et al., 1977, p. 365)

In the last line, Roger fails to repair his utterance which obviously was the cause of some trouble and is initiated by Ken's 'hm?'.

The fundamental structures for repair in oral conversation that have been described by conversation analysts have been outlined above. One issue for this study is to examine whether the structures described are applicable to conversation taking place in the Web.

2.4.4 Initiator techniques – forms of repair initiation

Initiators are the signals to start a repair sequence. The forms of initiator techniques have been noted and investigated by CA analysts. When Schegloff et al. (1977) first

studied repair organization, they found that self- and other-initiations have clearly different rules. This section will review the literature on descriptions of the initiator techniques for repair taken either by self (2.4.4.1) or other (2.4.4.2).

2.4.4.1. Techniques for self-initiating repair

Self-initiations within the same turn (which contains the trouble source) use a variety of non-lexical speech perturbations, e.g., cut-offs, sound stretches, 'uh's etc., to signal the possibility of repair-initiation, e.g.

[14]

A: → W- when's yer uh, weh- you have one day y'only have one course uh?

(Schegloff et al. 1977, p.367)

For Chinese conversation, Zhang's (1998) investigation found that, besides non-lexical speech perturbations, other forms of technique, such as lexical expressions and repair initiated without separable initiators were also employed for self-initiating repair.

Zhang (1998) pointed out that lexical expressions are 'the most explicit initiators that indicate either the trouble-source to be repaired or the kind of item a search is set up to find' (p. 36). A speaker can indicate a replacement through the format of 'not X, Y'. In such cases, the trouble source X is cancelled out by a negation and a replacement Y is then supplied, e.g.

[15]

Cheng: as to picking apples I haven't done it I (.)
((clear throat)) I- I've done it once (1.1) I
→ wasn't picking apples it was picking: the
cherries.

(Zhang, 1998, p. 37)

In above example, the cancelled out trouble-source is 'picking apples' which is replaced by 'picking cherries'.

[16]

Tian: the first time I rode a motorcycle I let who
was it, Chunyu, chunyu to take me, the first

time I rode a motorcycle, not the first, it was in
Weihai.

(Zhang, 1998, p. 40)

In example [16] the insertion of 'who was it' after the verb 'let' indicates the speaker's momentary difficulty in finding the appropriate name that should fill this position. However, immediately following the search signal, the person's name is delivered with stress 'Chunyu'.

According to Zhang's data, though many cases of repair are initiated by a separable initiator, separable initiators are not always required, e.g.

[17]

Woman: I took my kid to eat at: (.) McDonalds' then
when I turned back that – thing that handbag
was gone

(Zhang, 1998, p. 48)

This example shows that the repair has no initiator at all other than the syntax: juxtaposing one item 'thing' right after another item 'handbag'.

Zhang (1998) suggested that lexical and non-lexical initiators are used to initiate same-turn self-repair, and a juxtaposition of two parallel items often constitutes a repair with no obvious initiating cues.

Some other specific forms of initiating technique for self-repair are also classified into different categories in investigations on English. For example, Goodwin (1987) uses the term 'uncertainty' to describe the specific occurrence of interactional features in conversation. Though Goodwin (1987) did not view uncertainty from the perspective of techniques for initiating, uncertainty is used as a form of technique for self-initiation for repair, e.g.

[18]

Mike: I was watching Johnny *C*arson one night en there was a guy by the na-
What was that guy's name.=Blake?

(Goodwin, 1987, p. 115)

In example [18], Mike starts to provide the name of the guest being talked about ('there was a guy by the na-') but then interrupts himself in mid-word and indicates that he is having trouble finding that name ('What was that guy's name.'). He eventually produces a name but marks it as problematic by pronouncing it with rising intonation (Blake?). Though Goodwin did not review the event in this example from the perspective of repair organization, it is obvious that the form of uncertainty used in Mike's talk is a self-initiation for repair.

As mentioned previously, if analysts use other categories to classify the appearance of uncertainty, they may use other names as initiators for repair. The example of uncertainty above can be clarified as a lexical initiator according to Zhang (1998).

2.4.4.2 Techniques for other-initiation

Other-initiating techniques have been described with various initiators that signal the start of a repair sequence. The general classification of other initiating techniques in the existing literature on CA can be outlined as follows.

Open class

Drew (1997) explored the forms of 'open' class repair initiation by analysing naturally occurring telephone conversations and argues (p. 69) that when speakers initiate repair, they may use repair initiation forms which locate the specific source of trouble (the repairable) in the prior turn; and they also may select forms which treat the whole of the prior turn as in some way problematic. The latter case can be called 'open' forms, which use, for example, 'pardon?', 'sorry?', 'what?', 'Hmm', etc. In other words, the form of 'open' class does not indicate the 'trouble' in the prior turn specifically, but requests a repair for the whole of the prior turn.

Here are two examples taken from Drew (1997) to illustrate this type of technique for other-initiation repair:

[19]

Lesley: they've gone over to the C<u>a</u>t A<u>sh:.</u>

(0.3)

Norm: Oh: right.
Lesley: I don't=if you want to go over there an' see them a:ll?
Norm: I can't I'm dialyzing at the mo-:ment. he[h,
Lesley: → [Sorry?
Norm: I'm dialyzing at the mome[nt,
Lesley: [.hh Oh::

[20]

Lesley: Didju get my letter,
(0.5)
Mum: Uh yes thank you, I've writ- (.) I've answered it. =
Lesley: =TCH. Oh yes. Wey (.) Can you work it all out,
Mum: → Pardon?
(.)
Mum: Oh yes. Ye:s yes'v course I could.

In [19] and [20] above, a speaker uses a form of repair initiation — 'Sorry' in [19], 'Pardon' in [20] (see arrowed turns) — which indicates some general trouble with the other's prior turn. However, Drew (1997) argues, most significantly, that these initiations 'do not themselves identify the repairable items in the prior turns, or specify the nature of the difficulty which the speakers have in understanding what their co-participants have just said' (p. 72). Thus, this kind of initiation leaves open what exactly the difficulty is which the speaker (i.e. the one who initiates repair) is having with the other's prior turn. For this reason, 'sorry?', 'pardon?', 'what?' and so forth are an 'open' class of repair initiators, as they leave 'open' what is the repairable trouble which the speaker is having with the prior turn (ibid).

Understanding check

Understanding check, one of techniques for initiation of repair, has been studied in various languages and cultures, e.g. English (Schegloff et al., 1977), Thai (Moerman, 1977) and Korean (Kim, 1993). As an understanding check (e.g. use of the form 'Y'mean + possible understanding of prior': see example [26]) can receive either rejection or acceptance, it may be a form for repair as well as initiation. Though

understanding check can be embodied in different formats for language-specific features, it is an initiation technique for repair. In many cases, the understanding check 'takes the form of COLLABORATIVE COMPLETION' (Schegloff, 1988, cited in Kim, 1993, p. 10), by which the speaker fills in any blanks in the trouble source utterance. In Korea, 'speakers tend to display their understanding of the trouble source utterance through their own collaborative effort supported by frequent occurrences of another form of other-initiation, by which the speaker provides a candidate understanding of the point of the utterance in the prior turn' (Kim, 1993, p. 10).

Question

According to some investigations (e.g. Besnier, 1989), a question is the most common strategy for other-initiation of repair. Based on a study by Nukulaelae, Besnier (1989) argued that questions have two types for functioning as repair initiators. One is questions which bear on an element of the previous turn, which can be called *retrospective questions*. The other is questions which request the interlocutor to provide more information than given in the preceding turn, which can be called *prospective questions*. Though the boundary between these two question types is not always clear-cut, the distinction between prospective and retrospective questions remains useful in many contexts, for the analysis of repair organization in particular. For example, usually the former one is used as a form of techniques for other-initiation, while the latter one is used as a form of techniques for self-initiation. Example [21] below, from Zhang (1998), just uses a question as a technique for other-initiation which occurs in conversation taking place in Chinese:

[21]

1	Shen:		Your name please?
2	Xin:		eh it's Xin.
3	You:	→	Xin?=
4	Xin:		= uh yeah yeah yeah =
5	Shen:	→	= what Xin?
6	Xin:		Xin as in "xinfeng"
7	Shen:		Oh: that's- r- rare

(Zhang, 1998, p. 107)

In [21], the participants are at the beginning of a radio call-in programme. One of the programme's hosts repeats the caller's surname in line 3 as a question requesting clarification of the name. After the caller fails to do so, in line 5 the programme's co-host issues the question 'what Xin?' directly, to show their problem in catching the caller's surname, which is an uncommon one.

Open class, understanding check and questions are commonly used as other-initiating techniques. However, each of these techniques is still embodied in some specific form or device. According to Schegloff el al. (1977, p. 367), other-initiations 'use a group of devices' to initiate repair that mainly include types of:

i *Huh, What?*, e.g. [5] (2.4.1)

C: → Hu:h?

ii Consist of the question words *who, where, when*, e.g. [2] (2.4.1)

D: → Where.

iii Partial repeat of the trouble-source turn, plus a question word, e.g. [4] (2.4.1)

A: → To a where?

iv Partial repeat of the trouble-source turn, e.g.

[22]

A: Well Monday, lemme think. Monday, Wednesday, an' Fridays I'm home by one ten.

B: → One ten?

(Schegloff et al. 1977, p. 368 [TG:15–16])

v *Y'mean* plus a possible understanding of prior turn, e.g.

[23]

A: Why did I turn out this way.

B: → You mean homosexual?

A: Yes.

(Schegloff et al., 1977, p. 368 [SPC:SP])

The above five main types of device for initiator techniques for other repair were identified by Schegloff et al. (1977), but of course there are other types for initiation. In the light of Schegloff et al.'s theoretical framework, other researchers have further examined and clarified forms of initiation techniques for other-repair in different languages or from a different perspective. For example, for Chinese, Zhang (1998) has

identified five technical devices for other-initiation, which seem most similar to English:

i Question partial 'a'(ah) and question word 'sheme' (what)
These two forms used for other-initiation in Chinese seem the same as forms (i) and (ii) listed above for English.

ii Partial repeat of the trouble-source turn plus question word
This form is the same as form (iii) above for English.

iii Repeating the trouble-source
This is the same as form (iv) above for English.

iv Question
This form is used to specify the nature of the trouble-source by embedding the problematic part of the prior turn in a question. However, it is a little different from the form of partial repeat of the trouble-source turn plus question word, because the question may be more than a word in this form.

v 'Ni shuo…' (you mean…)
This is a form of understanding check which is the same as (v) in Schegloff et al.'s (1977) list of types.

The literature above on techniques for self- and other-initiation for repair are based on studies of ordinary face-to-face conversation. It is felt that, because the Internet has provided people with a new medium for conversation — Web-based conversation for example — investigation of the techniques for initiating repair in Web-based conversation is necessary. It is, therefore, one of the objectives of the present study.

2.4.5 Patterns for repair

Patterns or types of repair are one of the most important and interesting topics in studies of repair. For example, Schegloff (1979) analysed in great detail a particular repair type — same-turn self-repair — and argued that 'the details of the impact of repair on the shape of sentences should be describable by showing that the components of repair are orderly in their operation' (p. 272). Others have also worked on identifying repair patterns or types. For example, Zahn (1984) outlined five repair types, which included: a simple repeat of the trouble source (i.e. for hearing, attention difficulties); specification of a referent; rewording or rephrasing; correction; and explanation. In Zahn's study, repair types were not divided clearly for self- and other-repair. Later, a few researchers (e.g., Chui, 1996) paid attention to this issue, and as Chui's findings have some relevance for the present study, some details of this work are given below.

Chui's 1996 study, which was limited to self-repair, found that most of the patterns identified by Fox and Jasperson for English (1996, cited in Chui 1996, p. 344) — for example, replacement, repetition of previous words, the addition of new constituents, or even the abandonment of old constructions — can also be found in the Chinese data. From the data, drawn from two commonplace, everyday conversations among friends, Chui identified 458 self-repairs, which were classified into six main patterns (the examples below are taken from Chui's work). While only the English translation is presented below in order to have a consistent style of data presentation in this study, the complete transcripts of Chui's examples are shown in Appendix III):

i Repetition:

[24]

H: I ((*wo*)).
I ((*wo*)) do know I have this kind of defect.

(Chui, 1996, p. 346)

The speech above has a repetition of the first-person pronominal *wo* (I).

ii Completion:

[25]

L: Anyway time ((*shi*))

when the time ((*shijian*)) comes
you will then be promoted.

(Chui, 1996, p. 347)

In example [25], speech interruption occurs within a word by *shi* of the whole compound *Shijian* (time). It is then completed in the self-repair outcome.

iii Replacement:

[26]

L: Then quickly ((*kuai*))
comparatively ((*bijiao*)), that can be seen.

(Chui, 1996, p. 348)

Replacement is major kind of pattern for self-repair. In example [26], *kuai* (quickly) is substituted by the adverbial *bijiao* (comparatively).

iv Addition:

[27]

L: Then, Taiwan does not seem
still ((*hai*)) does not ((*mei*)) seem to have this kind of example.

(Chui, 1996, p. 349)

The adverbial *hai* (still) is added to the front of the negative *mei* (does not) in example [27] above.

v Reordering:

[28]

W: His mail was written also ((*ye*))
was also ((*ye*))written in a very interesting way.

(Chui, 1996, p. 350)

Example [28] is interrupted at the adverbial *ye* (also), which reverses its order with the preceding verb in the outcome.

vi Abandonment:

[29]

O: How can I know he ((*ta*)) will
he ((*ta*)) got the wrong way,

not I got the wrong way.

(Chui, 1996, p. 350)

In example [29], speaker O's attempt to raise a question about his/her knowing is entirely aborted. He/she then starts a new construction which suggests a message about a different subject *ta* (he).

Nevertheless, it is necessary to note again that Chui's (1996) patterns for self-repair are drawn from data on self-initiated self-repair only, without cases of other-initiated self-repair. The patterns of self-repair initiated by others in Chinese conversation were further examined by Zhang (1998), and six patterns were identified from the data which consisted of 13 hours of recording of calls to radio programmes, and more than 2.5 hours of face-to-face and telephone conversations. The six patterns are listed below:

i Repeat

[30]

1	Man:		[eh, they said my home is very far away
2			(0.9)
3	Sun:	→	Your home what?
4			(1.0)
5	Man:		he said our home- (0.6) is very far away

(Zhang, 1998, p. 102)

When the man in above example says something about 'my home is very far away' in line 1, Sun issues an other-initiation 'your home what?' in line 3. This initiation shows that Sun has heard 'my home' in the previous turn and probably understood that the disapproval has to do with the man's home, but may not have heard or understood what it is about the man's home. Thus, the man repeats the words in his previous turn 'is very far away', together with a little word change from 'they said' to 'he said', and from 'my home' to 'our home', as self-repair.

ii Rephrasing

[31]

1	Zhou:	··· then at the canteen entrance, we gathered,

2			then sang, after the singing was done went in to Eat.
3	Mei:		eh, if you didn't sing loud could you go on to Eat?
4	Zhou:		Ah?
5	Mei:	→	if you did not sing well could you go on to eat
6			then? =
7	Zhou:	→	= wasn't a big deal really, anyway (.) we all
8			just hummed a bit and it was over, it was done.
9			after the singing we ate, after eating we then took a nap…

(Zhang, 1998, p. 97)

In this example, there are two repair accomplishments which both employ the rephrasing pattern for repair. The first is when Zhou uses 'Ah?' as other-initiation, which gives Mei the signal that he has some problem with hearing or understanding what she has just said in line 3. In line 5, Mei rephrases her original question as self-repair to ask again for an answer; the second one is that, after Mei issues initiation for repair, in lines 7–9, Zhou rephrases his words in the trouble source in lines 1–3 as self -repair.

iii Confirmation

[32]

1	Liu:		… passengers (check) doesn't it have a security
2			check,
3	Chen:		Mhm
4	Liu:		security check means passing all the lug- big
5			luggage through the conveyor belt, the small
6			luggage are all se- checked by security staff,
			[this is all very normal
7	Chen:		[mm
8	Chen:		you mean the security check at the airport right,
9	Liu:	→	uh the airport, yeah (Zhang, 1998, p. 110)

Here, Liu is talking about a security check on passengers' luggage. When Chen uses the technique 'you mean + possible understanding of prior turn' for other-initiation in line 8, Liu confirms Chen's understanding 'the airport' in line 9.

iv Explanation

An example for explanation as a pattern of repair can be taken from [21]. In [21], when Zhang asks the question 'what does it mean by preschool class?' as other-initiation, Tian and Cheng, who overlapped in speaking in the prior turn, try to give their explanations of 'preschool class' in lines 6–8 and 10–11 as self-repair to the problems which occurred in their prior turns in lines 3 and 4.

v Rejection

[33]

1	A :		If this happens to you what would you do?
2			>if<you:: in future have a lot of money,
3	C :		Mm
4	A :		and have married a:: chief executive for a wife
5			-ah for husband
6	C :		hhuhuhh .hh
7	A :		then wouldn't you be::(.)in a similar situation
8			and how do you handle it?
9			(.)
10			( )
11	C :		in a similar situation? you mean divorce?
12	A :	→	n(h)o no huh
13			[huh (why're you always thinking about this)]

(Zhang, 1998, pp.11–12)

In [33], C issues an other-initiation turn in line 11 by displaying his/her possible understanding of A's prior turn for A to confirm or reject. Obviously, C's initiation indicates that he/she has some trouble with A's prior turn in lines 7–8. In line 12, however, A uses rejection to accomplish self-repair. Though A then goes on to make a

joke instead of clarifying what he/she meant by being in a similar situation, his/her rejection already provides a definite answer to C.

vi Combination

[34]

1	Zhou:		I know to make medicine there's a room for it.
2			in our hospital we have such a room and they
3			make what::em
4			(.)
5	Wu:		Pressing tablets and the like (*ya pianr*)
6			(.)
7	Zhou:		Opium? (yapian?)
8	Wu:	→	No, it's that pressing those tablets.

(Zhang, 1998, pp. 105–6)

Example [34] starts with Zhou talking about the hospital where she works making their own medicines. In lines 2–3, as Zhou has some difficulty in finding words to describe exactly the kind of medicine that can be made in the hospital, Wu comes in to make a tentative suggestion for the words. However, Wu's suggestion turns out to be a trouble-source for Zhou. In line 7, Zhou issues an other-initiation. It happens that the phrase for 'to press tablets' (ya pianr) and the noun for 'opium' (yapian) in Chinese are homophonous with different tones, which causes Zhou's mishearing or misinterpretation of Wu's suggestion in line 5. In line 8, Wu first says 'no', the form of rejection to oppose the word 'opium', that Zhou understands, and then explains that it is 'pressing those tablets' as self-repair. In line 8, Wu accomplishes a self-repair for combined troubles, one of which is the mishearing or misinterpretation of 'ya pianr' in line 7, and the other is the word search in lines 2–3.

The self-repair patterns for self-initiation and other-initiation respectively have been reviewed above by looking at two studies of Chinese conversation. As noted before, repair patterns for self-repair have received more attention, and have been analysed in more detail (as exemplified above), while repair patterns for other-repair have received less attention and been examined only in general (e.g., Zahn, 1984). Moreover, to date, no research has been done on the analysis of patterns of repair in

Web-based conversation. There is therefore a need to examine repair patterns in Web-based conversation, which in most cases embodies other-repair.

2.4.6. Preference in repair organization

Based on their observations, Schegloff et al. (1977) argued that self-repair and other-repair are 'not to be treated as independent types of possibilities or events, nor as structurally equivalent, equipotential, or equally "valued"' (p. 362). The two types of repair employed by participants in conversation do not seem to be equally balanced, and there appears to be an order of importance or preference in how people carry out repairing; and this order is closely connected to who starts the repair (self or other), and who accomplishes the corrective work (self or other).

As indicated in the general review of the issue in section 2.2.4, the idea that there is some preferred response to some types of utterance, which is called preference organization, was first put forward by Schegloff et al. in 1977 in their article 'Preference for self-correction in the organization of repair in conversation'. In this paper, they used the term 'preference' not to refer to the motivations of the participants in a conversation but to sequence and turn-organizational features of conversation.

They found that there is a preference organization for repair in conversation, i.e. self-initiated self-repair is preferred to other-initiation other-repair (Schegloff et al., 1977). Listeners do not usually initiate a repair as soon as they have detected some deficiency in speech, but wait for some time for the speaker to initiate it him/herself. Only when the speaker fails to do this during the waiting period do they begin to initiate it (Jiang, 2000, p. 267). Schegloff et al. considered other-repair to be highly constrained, and Levinson (1983, p. 342) argued that it is 'a rare event'. However, Schegloff et al. did not provide frequency data on the relative occurrence of self- and other repairs, and did not even attempt to look beyond sequential organization as an explanation for their findings. Further efforts which have been made to investigate preference for repair have suggested considering the content or function of the utterances, and the relational context in which the repair sequences occur. Research which has included content and relational context in analysing repair offers further insights into the nature of the

repair process. For example, Zahn (1984) investigated repair organization on data collected from 42 different conversations, and found that, for example: self-initiations usually do yield self-repair; self-repair is favoured not simply on sequential grounds but also on informational or knowledge grounds; self-initiations occur most frequently when the problem is one of wording. Other-initiations occur most frequently when the problem is either ambiguity or error. Thus, Zahn (1984) criticizes Schegloff et al.'s viewpoint on preference for self-repair, and argues that the repair system is more complex than they had originally proposed: by not reporting frequency data, and more importantly, by neglecting communicative concerns such as content and relational context, Schegloff et al. drew incomplete conclusions regarding repair organization. Zahn (1984) further indicates that conversation structure and content are related: 'content and sequencing information together predict the shape of repair episodes much better than either independently. Both must be assessed in trying to explain conversation' (p. 64).

Zhao (1996)'s investigation, which was based on data collected from discussion in a Chinese linguistics circle, showed that among 260 instances of repair, 126 cases (48%) were self-initiated self-repair and 47 (18%) were other-initiated self-repair, while 67 (26%) were other-initiated other-repair, and 20 (8%) were self-initiated other-repair. This indicates that, though self-repair made up the majority (66% in total), other-repair accounted for a not insignificant percentage, 34%. Furthermore, if only initiation is being looked at, self-initiation did not have an overwhelming majority, only 56%. Among those which were other-initiated, 59% were other-repaired (cited in Jiang, 2000, p. 268). Zhao's (1996) data from Chinese conversation, therefore, do not support the view that there is a preference for self-repair. Self-repair seems not to be a universal preference, but may be situated and dependent on the context of conversation.

Given the different viewpoints on preference of repair, further study of this issue using data from another kind of situation and context — Web-based academic discussion — should be of interest in its own right, and will help to provide a better picture of repair as an organized mechanism addressing conversational problems. Therefore, preference of repair in Web-based conversation is given particular attention in this study.

2.4.7. Competence for repair

Though Schegloff et al. (1977) argued that self-repair is preferred over other-initiated other-repair, they also suspected that there is a skewing toward other-correction in adult–child interaction. They considered that other-correction acts as a 'vehicle for socialization … a device for dealing with those who are still learning or being taught to operate with a system which requires, for its routine operation, that they be adequate self-monitors and self-correctors as a condition of competence' (1977, p. 381) — a speculation which stimulated other work in the area. For example, McHoul (1990) examined repair in classroom talk, and found that teachers tend to respond to problematic student answers by issuing other initiations as soon as the trouble-source turn is over, so next-turn other-initiations are more numerous than same-turn self-initiations and self-corrections. However, teachers generally do not take the opportunity to other-correct student errors, but use various techniques to provide students with opportunities to self-correct.

Another area of particular interest in competence for repair is whether repair accomplishment depends on a characterization of the speaker's ability or knowledge. There are several different viewpoints on this issue.

For example, Norrick (1991) describes the organization of repair in settings characterized by uneven language ability — such as interactions between parents and children, classroom interactions, and interactions between native and non-native speakers — and compared them to settings characterized by approximately equal language ability among participants. As Norrick views the imbalance in ability and knowledge between speakers as an important factor in accounting for who is able or even responsible for issuing other-correction, he argues that corrective action by a single participant with superior language ability or background information is a normal response to certain conversational circumstances; and 'participants negotiate the organization of repair in any given context based on their perception of who is better able to recognize and correct errors due to differences in language ability and background information' (p. 80). Norrick (1991) also suggests that this accounts not only for the unmarked occurrence of other-corrections in conversations between parents and their children, teachers and students, and native speakers and non-native

speakers they know well, but also for 'the relative reluctance associated with other-corrections in conversation between adult native-speakers with approximately equal background knowledge' (p. 80). Therefore, Norrick tends to review repair from the standpoint of participants' respective abilities rather than from 'preference for self-correction' (as Schegloff et al. do).

Another viewpoint on competence of repair, however, provides some illustrative evidence different from Norrick's emphasis, even though some of the evidence comes from Norrick's study. For example, Zhang (1998) compares the following two examples from Norrick:

Norrick, 1991, p. 70 (Extract 15):

1	Coco (2, 10):	Make these flowers here-in
		((Cf. German: Mach' diese Blumen hierein))
2	Father:	Put'em in here.
3	Coco:	Yeah.

Norrick, 1991, p. 71 (Extract 18)

1	Father:	Moths usually have hairy bodies. But butterflies' bodies are uh:glatt.
2	Nick (4, 6):	Smooth.
3	Father:	Yeah smooth.

The first line in each case contains the troubles-source caused by German speakers speaking in English. They are corrected in the second line and confirmed in the third line. As Zhang (1998) indicates, in both cases, the second speaker issues other-correction on an item in the first speaker's prior utterance. The difference is that the two other-corrections have been made by the father and the child respectively. Therefore, the labelling of the speaker as father and child does not seem immediately relevant here (p. 186). Zhang, therefore, argues that the formal features of repair do not necessarily depend on a characterization of the speaker's ability or knowledge,

whereas the participants will have to display to themselves that they are engaged in talk in these capacities at any given point in the ongoing talk-in-interaction.

Reviewing the literature on competence of repair is useful for explaining repair organization in Web-based discussion in this study.

2.4.8. Repair as an interactive resource

As has been stressed before, repair plays an important role in conversation not only for removing problems which occur in the process of talk and keeping conversation going, but also as an interactive resource for talk-in-interaction. This section reviews the literature from this perspective to see how repair functions as an interactive resource.

Studies show that participants in ordinary conversation can use repair as a resource to organize the talk in progress (e.g., Goodwin, 1981). Goodwin (1987) says that repair 'not only enables a speaker to display to others some of the information processing, or other "back stage" work involved in producing an utterance, but also provides participants with resources for shaping their emerging interaction' (pp. 115–16). For example, as mentioned in the previous section, display of uncertainty is a form of self-initiation for repair. Using this repair initiation form may provide resources for interactional activity in a range of ways, as Goodwin (1987) points out:

> First, by marking something as problematic, a speaker can both bring the material being looked for into a position of salience that it would not otherwise have had, and make the task of searching for that material the primary activity that the participants to the conversation are then engaged in.
>
> Second, through the way in which a speaker performs the display of uncertainty, he or she can make a variety of proposals about the social position of others present. Thus a speaker can signal that others present share with him or her access to the material marked as problematic, and invite them to aid in the search for it. Different recipients are thus asked to participate in the search in alternative ways, a process that places those present in a set of contrasting discourse

> identities. These same resources can also be used to make relevant larger social identities.
>
> Finally, the social proposals made possible by a display of uncertainty provide a speaker with resources for attempting to reshape the structure of the interaction of the moment in ways better suited to that party's current projects. (p. 116)

Uncertainty is just one illustration of how self-initiation for repair can be used as an interactive resource. Another example is self-error correction, as seen in a study by Jefferson (1974). Jefferson collected instances in which error-correction yielded error cancelled just prior to delivery, such as:

Parnelli: I told that to thuh-uh- officer.
Barrows: Well? according to thuh – thee officer

(Jefferson, 1974, p. 189)

Parnelli and Barrows in the above excerpt are accomplishing self-repair by involving 'thuh-uh-', 'thuh' –' resulting in error being cancelled just prior to delivery. Jefferson indicates that such an occurrence may be 'an elaborate act, serving as a resource for such interactional business as the proffering of identity of self and situation' (p. 192). Because ' thuh-uh- officer' or 'thuh – thee officer' can convey not only that the speaker happened to be on the verge of saying 'cop' and replaced it with 'officer', but also that this is the sort of person who habitually uses the term 'cop' but replaced it with 'officer' out of deference to the courtroom surroundings. The example can demonstrate that 'people distribute their talk in terms of appropriate environments for talk and appropriate users of talk', (p. 192) and that this kind of interactional activity is embodied by self-initiated repair.

Other-initiation is also an interactive resource. For example, in a study of 'information withholding sequence' in Nukulaelae gossip talk, Besnier (1989) notices that the speakers withheld information from their interlocutors, thereby creating a situation where the interlocutors had to other-initiate a repair to request that information, so that in the next turn, the speaker would finally provide it. According to Besnier, the

sequences of information withholding show how ambiguity and repairs 'can be exploited to meet the communicative demands of particular interactional contexts' (p. 315). In a Korean case, Kim (1993) indicates that speakers tend to over-suppose and under-tell, which leads the interlocutor to initiate repair in various forms. Then the speakers of the trouble source provide clues, and the speaker who initiated repair attempts to respond to the trouble source utterance over the smallest clue. This 'clue-giving and catching-up' process is an interactional practice.

Though it is not absolutely certain why repair always appears in natural conversations, Tao (1995, pp. 55–56) uses his data to highlight several interactional reasons that may help to explain it (though the reasons do not cover all the instances of repair), viz: gaining the floor or attention; word-searching; rearranging referent presentation; amending speech errors; and rephrasing propositions. These reasons appear to be related to the interactive nature of conversation.

A specific instance of repair may be classified as either 'no-error' or 'error-correction' repair. The 'no-error' repair indicates that there is no hearable error in the utterance that is being repaired, and that repairs are performed for the interactional needs of conversation. In contrast, 'error-correction' repair indicates that the repair is induced by speech errors (Gomes de Garcia, 1995, cited in Tao, 1995).

Repair is organized as interactive activity. Its sequential structure provides speakers with resources for shaping emerging interaction. Once again, this is an area which the present study will explore.

2.5 Summary

This chapter has reviewed three dimensions of the literature that are closely related to this study: theoretical and practical work on conversation and Conversation Analysis, Computer Mediated Communication and non-English Conversation Analysis; and the emphasis has been placed on a specific aspect of the work in Conversation Analysis – repair organization.

Finally, as it is central to this study's orientation, it should be emphasized that text-based approaches to analysing conversation or discourse do not interpret speakers' intentions or cognitive strategies; rather, 'by looking at systematic patterns in the relationship of perception of surface cues to interpretation, we can gather strong evidence for the social basis of contextualization conventions and for the signalling of communicative goals' (Gumperz 1982, p. 170).

This research applies Conversation Analysis with the text-based approach to analyse what is happening in participant interactions in Web-based conversation. The research methods used, and the literature on methodological issues, are addressed in the next chapter.

Chapter 3

Research methods

This chapter presents the research methods employed in this study. As mentioned in previous chapters, since Web-based talk-in-interaction as a form of CMC has a relatively short history, not many conversation analysts have worked in this particular setting, and corpora of Web-based talk-in-interaction have been used even less frequently as a source for language studies. As there is no ready-made methodology for research in this field, this chapter deals first with methodological issues in general and then the strategies used in the present study. The first section considers approaches to the study of conversation and the strengths and limitations of both Conversation Analysis and Content Analysis before focusing on the specific methods used in this research. The next section, 'Data collection', outlines the context and source of the data for this study, describes the Web-based discussion board and the data used, and considers ethical issues; and this is followed by a detailed description of the procedures used for data analysis. The final section of the chapter deals with the issue of transcription of the Chinese data.

3.1 Methodological issues and the strategies used in this study

It has been noted in earlier chapters that the Web-based academic discussion data used here differ from ordinary conversation in terms of setting and context, and even the form of language use. The data are presented in the written form as a type of 'communicative utterance' (Titscher, Meyer, Wodak, and Vette, 2000, p. 20) and can be viewed as 'text'. As this research attempts to study talk-in-interaction taking place in the context of the Web, the related theoretical approaches and methodologies need to be discussed first. This section considers two linguistic approaches to the study of conversation, the procedures and limitations of Conversation Analysis, and a non-linguistic approach to text analysis – Content Analysis. The research strategies used in this study are then described at the end of this section.

3.1.1 Approaches to the study of conversation

As stated in Chapter 1, the goal of this research is to investigate interactional organization, particularly repair structure in Web-based talk-in-interaction. Two different approaches to studying conversation are particularly relevant to this study, Discourse Analysis (DA) and Conversation Analysis (CA) – both of which examine the structure of discourse and how sequential organization in communication is produced and understood. The differences between these approaches are outlined below as background to explaining the choice of methods employed in this study.

The DA approach to studying talk-in-interaction, of which 'exchange structure' is a well-known example, was adopted by Sinclair and Coulthard (1975). They studied primary school lessons and found a regular structure of three basic moves in classroom interaction between teacher and student: the initiation (I) from the teacher, the response (R) from the student, and the follow-up (F), which is the teacher's comment on the pupil's answer. The combination of moves in this IRF structure is known as the 'exchange'.

CA also studies the interactional structure of talk-in-interaction, but it takes a different, ethnomethodologically-oriented, approach. For example, DA looks at exchange structure in discourse as a predetermined sequence. It starts with the theory of a patterning of units, and shows how what people say fits the model, thus viewing conversation as a *product*. CA, on the other hand, takes a 'bottom-up' approach (cf. Cutting, 2002, pp. 27–28) which avoids premature generalization or theory construction. To CA, 'there was no a priori characterization of the talk' (Schegloff 1998, p.413). It starts with the conversation itself, and lets the data dictate their own structure. CA looks at conversation as a linear ongoing event, which unfolds little by little and implies the negotiation of cooperation between speakers along the way, thus viewing conversation as a *process*. From a CA perspective, conversation is usually informal and unplanned, which is obviously different from the DA perspective.

As a linguistic method, the difference between DA and CA is that the former incorporates linguistic categories into its analyses. DA 'speaks of *form* and *texture* at

the textual level (Fairclough) or of *forms* of linguistic *realization* (Wodak)' (Titscher et al., 2000, p. 167), while CA rejects such premature categorizations and generalizations, and attributes no prior significance to linguistic categories. In other words, the key difference between DA and CA is that the former takes the concepts and terms of linguistics and then examines their role in real data, whereas CA takes real data and then examines the language use and demonstrates that conversation is systematically organized.

To elaborate further, Levinson (1983) argues that the essential difference in the procedures employed by DA and CA is that DA often follows: (a) the isolation of a set of basic categories or units of discourse, (b) the formulation of a set of concatenation rules stated over those categories, delimiting well-formed sequences of categories (coherent discourses) from ill-formed sequences (incoherent discourses). In contrast, CA's methods are essentially *inductive*: CA searches for recurring patterns across many records of naturally occurring conversations, but not the immediate categorization of (usually) restricted data which is the typical first step in DA. In contrast to DA, CA emphasizes what is actually found to occur – not what one would guess would be odd (or acceptable) – and it does not circumscribe the data (pp. 286–287). Thus, CA theorizing is 'data-driven', not 'rule- or grammar-driven' (Mey, 1993, p.195).

Both CA and DA have been criticized on various grounds. For instance, Levinson (1983) argues that:

> DA theorists can accuse CA practitioners of being inexplicit or worse, plain muddled, about the theories and conceptual categories they are actually employing in analysis (see e.g., Labov & Fanshel, 1977:25; Coulthard & Brazil, 1979); CA practitioners can retort that DA theorists are so busy with premature formalization that they pay scant attention to the nature of the data (p. 287).

Because of such criticisms, there may be room for some accommodation between the two approaches, and even between them and other approaches – which, as will be seen

later, is attempted in this research.

In addition to the issue of theoretical approaches, special attention should be paid to distinguishing the research interest or focus, which was an important factor in deciding on the appropriate approach to data analysis in this study. While both DA and CA approaches study talk-in-interaction, the former tends to be concerned with 'verbal interaction as a manifestation of the linguistic order', whereas the latter is 'more concerned with verbal interaction as instances of the situated social order' (Montgomery, 1986, p. 51), or with finding 'those generative principles and procedures which participants use to produce the characteristic structure and order of a communicative situation' (Bergmann, 1994, quoted in Titscher et al. 2000, p.107). The present study is more closely related to the CA approach. It is more concerned with CA's focus on the mechanisms for socially organized interaction, such as how repair is sequentially produced and organized by the participants involved, rather than DA's emphasis on the linguistic order (e.g., grammatical categories). Moreover, while DA expects its results to 'lead to more or less explicit changes in the behavior of participants', CA on the other hand, 'seeks only to discover the generative procedures used by participants and does not seek to influence or change those procedures' (Titscher et al., 2000, p. 118–19), which is closer to the intentions of the present research.

However, as will be shown in detail later (see section 3.1.4), this study has two phases for data analysis, to answer different kinds of questions. For the reasons outlined above, CA is adopted in the first phase of the study, mainly for exploring the features of repair structures, initiation techniques for repair and repair patterns in Web-based conversation. As a CA approach is used in phase 1, its methodological principles and limitations are discussed further in the following section.

3.1.2 General methods and limitations of CA

Although it has been emphasized that CA must start its work without pre-defined concepts and theories, this does not imply that any piece of research involving CA begins blindly. Actually, 'CA provides its own assumptions, its own methodology (including its own terminology), and its own way of theorizing' (Schiffrin, 1994, p. 232).

The most central of the assumptions in CA is that 'ordinary talk is a highly organized, ordered phenomenon' (Hutchby and Wooffitt, 1998, p. 13). In this respect, it can be said that the present research works mainly within a CA theoretical background (though other approaches are also adopted which makes the methods used in this study comprehensive, as explained in later sections).

Unlike DA, CA uses inductive, not deductive, methods to deal with its data. That is, CA does not start with a model or form to show how participants' conversation fits it, but aims to find what patterns emerge in real data for a specific object of investigation. In this sense, CA attributes no significance to the prior assumption of a linguistic model, form or category.

With its ethnomethodological orientation, CA intends to reconstruct reality from the point of view of the participants in an interaction. For this reason, Titscher et al. (2000) indicate that, while conversation analysis does not have any general and binding methodology, its analysis is 'systematic and rule-governed' (p. 109). A central ground rule for any conversation analysis (Sacks, 1985, p. 15) is that:

> In setting up what it is that seems to have happened, preparatory to solving the problem, do not let your notion of what could conceivably happen decide for you what must have happened.

Only through adhering to this ground rule can conversation analysis proceed in the right way.

No full description of the procedures for dealing with data analysis has yet been developed for CA. However, it has been suggested (e.g., Bergmann, 1994, quoted in Titscher et al. 2000, p. 110) that, as the first step, a relatively small segment of data should be analyzed by an interpretation group, without jumping backwards or forwards in the transcript. Interpretation hypotheses are developed, rejected or validated jointly. The work of interpretation consists only of identifying objects (that is linguistic and non-linguistic utterances) and understanding them as components of an ordered event created by the participants.

In CA, the ordered nature of activities is a result of the methodical solving of some structural problems in the social organization of interaction, in other words is the answer to preceding questions. As mentioned previously, because conversation analysis attempts to discover how particular aspects of conversation are viewed by the speakers themselves, behavior is therefore analyzed, and from this analysis, units, patterns and rules are derived and formulated (Schiffrin, 1994, p. 236). The principles for processing analysis are summarized below, according to Bergmann (1994, see Titscher et al., 2000, p. 110):

Starting – with the participants' notion of relevance; it is therefore not a question of what speakers might intend by a particular utterance, but of how this utterance was handled in the conversation;

Ending – with a classification of the techniques used in the conversation by the participants in the interaction; categorizations are, therefore, typically only undertaken as a final step.

In the analysis of episodes of talk in interaction, CA work adopts various techniques, including establishing a pattern, deviant-case analysis and single-case analysis, all of which can be classified as qualitative analysis methodologically.

The following set of basic procedures for conducting conversation analysis has been suggested by Levinson (1983, p. 326):

a collecting recurrent patterns in the data and hypothesizing sequential expectations based on these;
b showing that such sequential expectations actually are oriented to by participants; and
c showing that, as a consequence of such expectations, while some organizational problems are resolved, others are actually created, for which further organizations will be required.

Having discussed the methodology of CA, it is necessary to consider some criticisms of the approach, in an effort to justify the use of other methods, in addition to CA, in this study. Particularly relevant to this research is the fact that CA is essentially a qualitative approach which does not count the instances of types of occurrences in order to find densities and distributions, or give empirical validity to claims about conversation organization.

Because CA focuses on describing and explaining single extracts from audio/video (in tradition) recordings, which differs from the other approaches to the study of language use, there has been debate about the place of quantification in CA. For example, it has been argued that the absence of quantification, as well as the claimed disinclination among conversation analysts to deal with large amounts of data, are weaknesses in CA work (cf. Prevignano and Thibault, 2003, p. 12). However, in defense of CA, Schegloff (1993) criticized the techniques of quantitative analysis and argued that, with some exceptions, quantification is 'premature' in CA, because we 'need to know what the phenomena are, how they are organized, and how they are related to each other *as a precondition* for cogently bringing methods of quantitative analysis to bear on them' (p. 114). He also raised a range of other issues related to the quantitative approach, such as: 'What counts as an occurrence of whatever it is we think we are counting?'(p.107); and 'some of the best evidence for some phenomenon or practice can often be derived from negative cases, which may display an orientation by the participants to the very practices from which they depart' (p.110). The upshot of this debate is that behaviour in talk-in-interaction could appear to be demonstrable as orderly *at the level of the singular occurrence only.*

Drew (1989, pp. 99–100) put the issue as follows: 'the focus of … analysis is not on how often [participants] joke but *how* they joke, not on how often they display nervousness but *how* they display nervousness … in short, not on the frequency of some activity but on the details of its management and accomplishment'. Clearly, qualitative analysis is an essential method in the CA tradition, though it is noticeable that quantification in the analysis of talk-in-interaction has been considered recently (e.g., Ford and Thompson, 1996; Tanaka, 1999; Li, 2001).

In fact, the CA tradition does not oppose the use of quantitative analysis, but shows a preference for so-called 'informal quantification' instead of 'formal quantitative analysis'. 'Formal quantitative analysis' focuses on precise numerical characterization; while 'informal quantification', in contrast, uses terms such as *massively*, *overwhelmingly*, *regularly*, *ordinarily*, *occasionally,* or *commonly*. According to Schegloff (1993, p. 119), the terminology used in 'informal quantification' reports 'an experience or grasp of frequency, not a count'.

The above review of the arguments about the position of quantification in CA suggests that there is room for using some kind of quantitative analysis for studying conversation. For example, as noted in section 2.2.4 and 2.4.6, conversation analysis of preferences in repair organization described the occurrence of other-repair in ordinary English as 'rare' (Levinson,1983, p. 342) – but exactly how rare is it? Preference for repair is one of the areas of interest in this study, and some more precise indication of its frequency would be helpful. To remedy CA's lack of quantification, the non-linguistic method of Content Analysis is adopted after the first phase of data analysis, particularly to provide frequency results for each pattern of repair. Also, in the second phase of data analysis, the procedures of Discourse Analysis and Content Analysis –both of which are 'top-down' methods – are combined for clarifying linguistic and non-linguistic events in the data on preference organization of repair in Web-based discussion.

As Content Analysis is employed in phase 2, its approach and methods are outlined in the following section.

3.1.3 Content analysis – approach and method

Methods for text analysis include linguistic and non-linguistic approaches. Broadly speaking, both DA and CA, which have already been discussed, are linguistic approaches for text analysis. While there are several non-linguistic approaches for analysing text, the method most relevant to this study is the longest established – Content Analysis.

Definitions of content analysis have tended to change over time with developments in technique and with application of the tool itself to new problems and types of materials (Holsti, 1969, p. 2). One of the most recent definitions, proposed by Neuendorf (2002), is as follows:

> *Content analysis* may be briefly defined as the systematic, objective, quantitative analysis of message characteristics (p. 1).
> Content analysis is a summarizing, quantitative analysis of messages that relies on the scientific method (including attention to objectivity-intersubjectivity, a priori design, reliability, validity, generalizability, replicability, and hypothesis testing) and is not limited as to the types of variables that may be measured or the context in which the messages are created or presented (p. 10).

As the above definition indicates, content analysis uses quantitative methods to deal with its data.

The literature on content analysis refers to numerous procedures. Though concrete rules for the main area of research interest, and for the allocation of units of analysis to categories, must be developed anew for each application, there are certain procedures which have been summarized by Titscher et al. (2000, pp. 58–61), as below:

Sampling – samples may be used based on the probability method, and under certain circumstances quota samples;

Defining units of analysis – the units of analysis are the smallest components

of texts in which the occurrence and the characterization of variables need to be examined;

Categories and coding – every unit of analysis must be coded and allocated to one or more categories, and every category should be, recommended, illustrated with examples;

Coding and reliability – to ensure that a coder is using the same criteria for allocation of units of analysis and categories throughout the operation, and is not modifying the definitions of categories, regular operational discussions need to be held. Inter-coder reliability can be assessed using a number of different measurements which indicate the relative proportion of units of analysis allocated to the same category by two different coders;

Analysis and evaluation – the evaluation for frequencies and indices consists of counting the number of occurrences per category. Evaluation takes account of problems of inference, e.g., both from the selected material to the total material.

It seems that, in general, content analysis has some ready-made, clear research procedures and guidelines to be followed in dealing with data. In the present research, this method is used to obtain the frequency results for each pattern occurring for repair, to show more precisely preference organization in repair in the particular setting of a Web-based discussion board, using the written form of Chinese language.

3.1.4 Research strategies for this study

It is generally agreed that it is unnecessary to use any linguistics research method in exactly the same way as it has been utilized by researchers in other specific research projects; as Jørgensen and Phillips (2002, p. 76) argue, for some kinds of approaches in linguistics study, there is no fixed procedure for producing material or for analysis: '… the research design should be tailored to match the special characteristics of the project'.

As stated previously, this study seems to be one of the very few (if not the first) research projects carried out in this area. Consequently, it requires the researcher to

develop a special research design which is suitable for this particular study. For this purpose, the three approaches discussed above – namely conversation analysis, discourse analysis and content analysis, all of which deal with text linguistically or non-linguistically – have been brought together in this research.

The research strategies can be described as follows:

Phase 1: CA is employed to show the variety of types of repair structure, initiation techniques and repair accomplishment emerging from real data. It is a 'bottom-up' approach to answering research questions 1–3 in section 1.3.

Phase 2: The pattern, model or categories derived from the first phase analysis are used for content analysis, and a discourse analysis approach is also employed for dealing with the data linguistically to 'make explicit those implicit norms and rules for the production of language, and [in particular] … the way that discourse consists of sets of hierarchical units which make up discursive structures' (Mills, 1997, p. 140). This is a 'top-down' technique to answer research question 4 in section 1.3.

In this second phase, the study, therefore, employs deductive methods to deal with text from both a non-linguistic (content analysis) and linguistic (discourse analysis) perspective, based on the results from the conversation analysis in phase 1. More specifically, in phase 1, 'single-episode analysis' involving a mainly qualitative approach is used to illuminate the locus of repair organization; and in phase 2, quantitative analysis is used mainly to provide numerical data on frequencies to address relevant points or arguments raised in this study.

Although this comprehensive research design has been specially developed to achieve the goals of this study, it is not entirely without precedent in previous research. For example, Wilke (1992) employed CA to show a variety of types of opening in psychoanalytic initial conversations, and subsequently used the themes as the basis for a Content Analysis (see Titscher et al. 2000, p. 124). The strategies and methods used in this study are very similar to those used by Wilke (1992), but the context, setting and even the language are different in the two pieces of research.

The procedure for data analysis in this study is outlined in figure below.

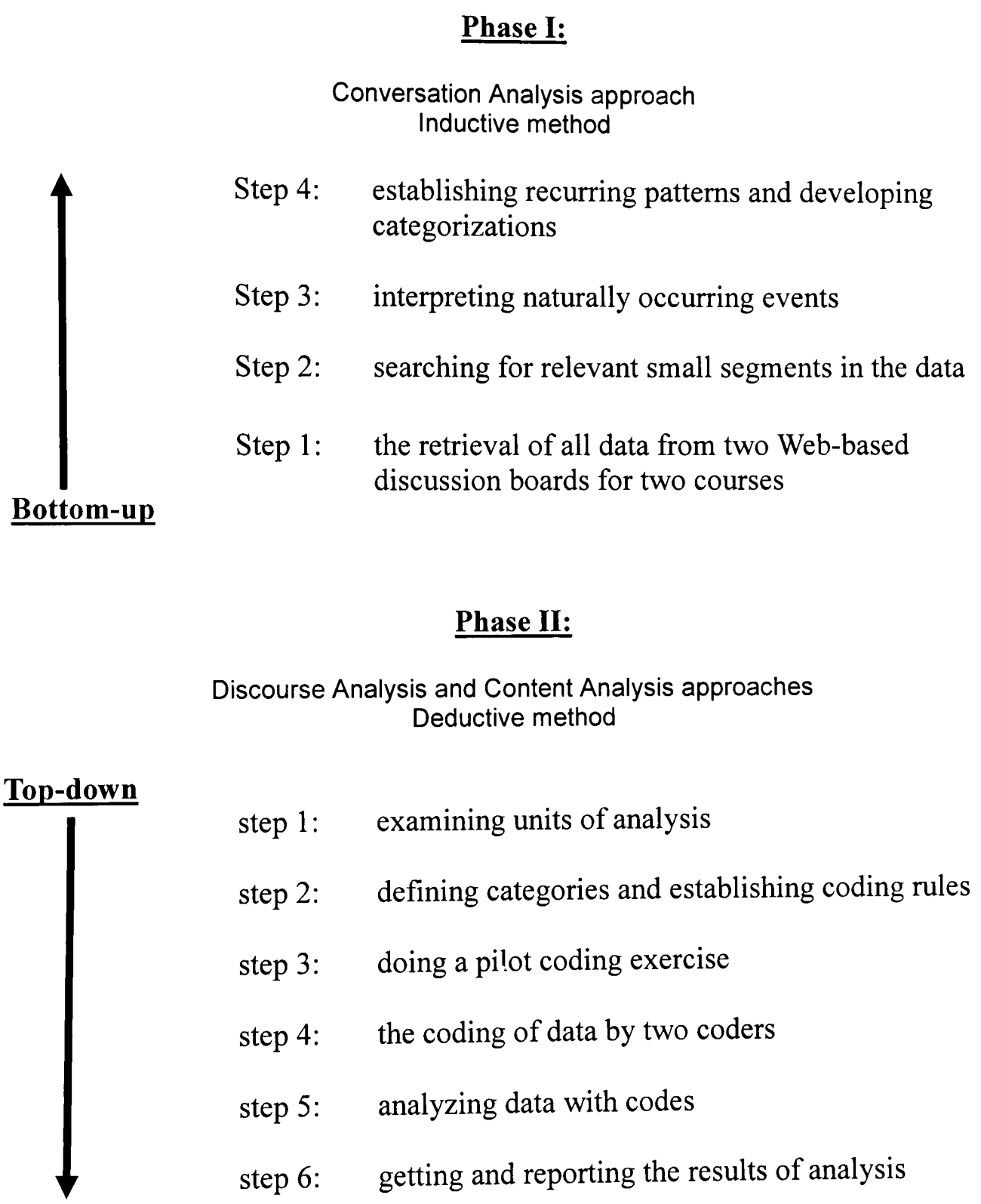


Figure 3.1 Procedures for data analysis

The following two sections (3.2 and 3.3) give further details about the research methods used and the procedures for data collection and analysis.

3.2 Data collection

In order to describe the data collection for this study in a clearer way, this section first gives an account of the source of the data, and then provides a profile of the data coming from the Web-based discussion boards.

3.2.1 Source of data

As mentioned in Chapter 1, the Open University of Hong Kong presents most of its courses with the support of the Online Learning Environment (OLE). The discussion board provided in the OLE offers an additional channel of communication for students and tutors to enhance teaching and learning.

This study is based on naturally occurring written interaction on the Web-based discussion boards for two education courses, ET300C and ET800C, for in-service teachers at the OUHK. The courses, which were non-credit-bearing, were developed specifically for the Hong Kong Education and Manpower Bureau; and they aimed to prepare primary school teachers and course coordinators to implement the major changes in curriculum and assessment strategies currently taking place in Hong Kong. They were based on the Internet-enhanced distance education model practiced in the OUHK. A considerable number of online discussion activities were built into the Study Units, and were hyper-linked to the Web-based discussion boards, which made it straightforward for participants to navigate; and also the course assignments required participants to reflect on their learning in the courses through Web-based discussion. Because of these elements of course and assessment design and provision, the two Web-based discussion boards contained more participants' contributions (i.e. more interactional postings) than the discussion boards for many other courses, according to the School reports on the use of the Web-based discussion board. Therefore, these two Web-based discussion boards were chosen as the data source for the study of organization of talk-in-interaction taking place on the Web.

The discussion board was open to students in ET300C from March to June, 2002 and to students in ET800C from July 2002 to February 2003. After each course ended, the

original data – that is, all participants' postings in the discussion boards –were retrieved and analysed.

The language of instruction for the two courses is Chinese, so the discussion boards are also presented in the written form in Chinese. Since a considerable number of online discussion questions were built into the printed study units for both courses, and related websites were also mentioned in these texts and hyper-linked to the OLE, students could move into the discussion board easily during their reading process.

A total of 400 participants, including students, tutors, and the Course Coordinator (CC) took part in the two Web-based discussion boards. These participants created more than 4,000 postings. Table 3.1 shows details of the data sources for this study.

Table 3.1 Details of the data source

	ET300C				**ET800C**				**Total**
	Student	Tutor	CC	Sub-total	Student	Tutor	CC	Sub-total	
Number of participants	177	9	1	*187*	206	6	1	*213*	**400**
Number of postings	1,323	482	147	*1,952*	1,646	294	116	*2,056*	**4,008**
Number of words	108,530	41,827	8,262	*158,619*	290,415	31,655	10,764	*332,834*	**491,453**

There were nine student groups in course ET300C, with ten discussion boards, and students could take part in their own study group discussion boards as well as in the public discussion board. Course ET800C involved six student groups, with seven discussion boards. As in ET300C, students could put their postings on their own study group discussion board as well as on the public discussion board. The details of posting distributions and number of topics discussed in each group are shown in Table 3.2 below.

Table 3.2 Topic title and discussion sequence presented in each group

Group	Postings		Topic title presented		Discussion sequences*	
	N	%	N	%	N	%
ET800C						
Group 1	193	9.4%	59	12.3%	19	8.5%
Group 2	145	7.1%	48	10%	20	8.9%
Group 3	215	10.5%	44	9.1%	23	10.3%
Group 4	151	7.3%	43	8.9%	22	9.8%
Group 5	355	17.3%	109	22.7%	46	20.5%
Group 6	195	9.5%	50	10.4%	23	10.3%
Public	802	39%	128	26.6%	71	31.7%
Total	2056	100%	481	100%	224	100%
ET300C						
Group 1	243	12.4%	49	9.8%	28	11.0%
Group 2	111	5.7%	42	8.4%	20	7.8%
Group 3	144	7.4%	55	11.0%	23	9.0%
Group 4	199	10.2%	65	13.0%	26	10.2%
Group 5	102	5.2%	17	3.4%	10	3.9%
Group 6	96	4.9%	19	3.8%	7	2.7%
Group 7	110	5.6%	26	5.2%	15	5.9%
Group 8	92	4.7%	38	7.6%	24	9.4%
Group 9	132	6.8%	50	10.0%	23	9.0%
Public	723	37%	140	27.9%	79	31.0%
Total	1952	100%	501	100%	255	100%

* Discussion sequence: two or more participants engaged in a discussion activity on the same topic title, which formed a discussion sequence.

Although there were seven discussion boards in ET800C and ten discussion boards in ET300C (each group was assigned its own board, with one public board for all students in the course), over 39% of the postings (802 postings) in ET800C and 37% of the postings (723 postings) in ET300C were posted in the public discussion board. Most participants were clearly more interested in or took part in more activities in the public discussion boards. Therefore, for quantities analysis in phase 2, the study uses only the data from the two public groups.

3.2.2 Data included and excluded in data collection

As has been noted before, the data in this study is written text which already exists in the Web, and has been saved automatically as archives by the computer. These data are very easy to access and retrieve (unless the University removes them from the archives officially). All texts posted in the two Web-discussion boards are captured, converted to Word files and maintained in the same format as displayed on screen, by using word-processor cut-and-paste functions.

Although the data collection from the Web seems easier than from oral conversation settings, several relevant issues need to be dealt with before the data collection proceeds. The three most major ones are noted below.

1 In the data, most texts showing on the screen contain the participants' entire message. However, in quite a number of cases postings have attachments, which are not displayed on the screen unless those receiving them open them. The attachments may contain the senders' own message, or references senders intend to give to other participants in the discussion group. If these attachments are ignored, the data retrieved would be incomplete; but if they are included, the workload in data collection becomes significantly heavier as every posting needs to be checked carefully, and each attachment has to be opened and retrieved as with normal postings. In considering the nature of the data and goal of the research, it was decided that, as parts of the data, all attachments must be collected.

2 Similarly, some postings in the discussion boards have linkages to other websites, which may contain information on the topic or issue under discussion. However, the messages in the linked websites are not direct speaking by the participants in the discussion group at that moment. Unlike the attachments discussed in above point (1), all the texts in linked websites are treated as non-direct utterances of participants in the talk-in-interaction activity. They are, therefore, not considered relevant for speakers in current conversation, and so have been excluded from the data collection.

3 Self-repair is a common practice in talk-in-interaction which needs to be examined in this study. This raises a very crucial issue for data collection as self-repair may be carried out by participants before postings are sent. So consideration needs to be given to whether or not self-repair in the writing process (i.e. before the text is posted on the discussion board) needs to be recorded and gathered for analysis.

How this issue is handled depends on the research orientation and approach employed. As explained in a previous section, this study aims to apply the CA approach to dealing with data in the first, and most fundamental, phase of the research, and so data collection should meet the requirement of CA. As seen in the literature reviewed in Chapter 2, CA works on 'these words produced as formatted utterances in relation to the utterances of other speakers' (Have, 1999, p. 7), i.e. the utterance is the basis for a conversation analysis. That is why the CA tradition needs to use technology to record the words spoken and uses them as the only source of data for study. It is very obvious that CA deals only with words which are already uttered (not with what a speaker is thinking about saying) and also the words must related to others' utterances, i.e. presented in a sequential talk. This provides two important criteria – actual utterances and utterances in a talk-in-interaction – for data collection for a conversation analysis.

The term 'utterance', as stated earlier (see 2.3.6), can be equated with 'posting' in this study. Only once a participant has posted his/her text by computer has he/she 'uttered'. From this viewpoint, it is very clear that, unlike self-repair in the same turn in oral conversation, self-repair during the text producing/writing process in Web-based discussion is not an actual 'utterance'. Any repair made by a participant appears only on his/her own screen, not others' screens, so any words repaired are never uttered, or spoken to others: they just remain in the mind of the speaker as part of his/her thinking process. Although this kind of `self-repair` would be an interesting research area, it does not come within the scope of CA because the repairs have not been put into the process of actual talk-in-interaction. Therefore, this study excludes the collection of data for self-repair which

happened during the text production process before being sent to the discussion board.

3.2.3 Ethical issues

The issue of research ethics was considered and dealt with before the study started. This section outlines the relevant issues and the ways used to deal with them ethically.

A formal request for permission to carry out the research project was made to and approved by the School of Education and Languages, and was then submitted to the University's Educational Technology and Publishing Unit for the special passwords required for entering the two discussion boards.

As regards the sensitivity surrounding the question of whether Web-based data are public or private, and whether researchers are eligible to access the data or not, the position of the Open University of Hong Kong is that the data are deemed to be University property as long as they are used without breaching personal privacy (see Appendix IV for the OUHK's policy on the OLE and Personal Data Protection). Therefore, participants in any Web-based discussion are not informed unless they are required to provide relevant information.

The researcher was neither the course coordinator nor a teacher on either course and, therefore, had no close relationship with the two courses. The relevant course coordinator was asked, and agreed, to co-operate where necessary. Also, as the research involved data coding and classifying procedures, a part-time research assistant (her name is shown in the Acknowledgements on first page of this thesis) acted as a co-coder, and she was made fully aware of the University's policy on personal data protection.

The decision to select the two courses as the data source for this study was made after the courses ended when the data were already available for use. None of the participants could access the Web-based discussion board at this stage as their

passwords had expired, so no changes to the data were made by them. It was decided that no retrospective request to participants for use of the text was needed.

The issue of whether or not participants' full names could appear in the study was considered seriously. The researcher finally decided to hide them for two main reasons. First, the data from the discussion boards could contain some personal information. Second, because CA 'is involved in the study of the orders of talk-in-interaction, whatever its character or setting' (Have, p. 4), participants' names are not involved in the data analysis process and never influence the results of conversational organization. A simplified label to indicate different participants should be sufficient for analysing and presenting the data. The study therefore used Chinese surnames only to indicate different participants, with the address form 'Mr' or 'Ms' in front of the surnames to identify their gender (e.g., Mr Tang and Ms Tang for participants whose surname was Tang). Because many Chinese surnames are the same, the first names become more important as personal identifiers, so hiding first names provides enough of a guarantee of participants' anonymity. In addition, following each surname, there is an indication in brackets of the sender's status in the group – (S) for student, (T) for tutor, and (CC) for the course coordinator. Particularly since the course coordinator for the two courses was the same person, and might be immediately recognized in the data presentation when CC appeared as a posting sender, his consent to use this form of data presentation was requested, and was given.

Because the research results did not give full information on individuals, and because of the time and cost involved, it was decided that participants would not receive copies of the study report.

In short, ethical issues were considered and dealt with carefully, and all the ethical guidelines produced by the OUHK were strictly adhered during data retrieval and analysis. During the process of analysis, the data were coded and the results of the analysis were given special codes, so no real names were shown in the findings, thus avoiding any contravention of the personal data protection policy.

3.2.4 Profile of the Web-based discussion board

Because a number of factors affect Web-based discussion, in particular the medium of the Web, which give it different features from oral conversation, a profile of the Web-based discussion boards at the OUHK needs to be given before discussing the ways in which the data were analyzed.

Participants' real names are displayed on the screen of the discussion board when they take part in discussion activities. As noted earlier, participants could send their contributions (postings or attachments) to the discussion board of either the group they had been randomly assigned to at the beginning of the course or to the public domain. This was up to the individual student. All postings were catalogued with varying depth of detail in terms of date, title and author. Each tutor was responsible for operating or managing the discussion activities in his or her own group. Tutors could not enter discussion boards they were not responsible for, but all tutors and students could enter the public group to post contributions. The Course Coordinator (CC), who had responsibility for all aspects of the presentation of the two courses, could enter all the discussion boards of the courses and monitor or moderate the discussion activities. Finally, all postings in the discussion boards remained until the courses ended.

When using the discussion board, the user's screen was split into several sections. When a participant clicked on a topic title on the left part of the board, the right part of the board immediately displayed the focal posting. Other postings, which the focal posting was replying to, are displayed in separate sections on the right. Participants who intended to take part in the discussion board usually wrote their postings in the top blank section, because the cursor always automatically appeared there. However, it was possible to move the cursor to another section on the right part of the board and words could be typed there as well.

The Web-based discussion board included an indexing function. The topography of the board allowed the reader/writer to sort postings by date, title, or author; and users could scan and select the postings they would like to read or respond to. Figures 3.2 and 3.3 below are the interfaces for indexing postings, which helped participants to find their target posting easily.

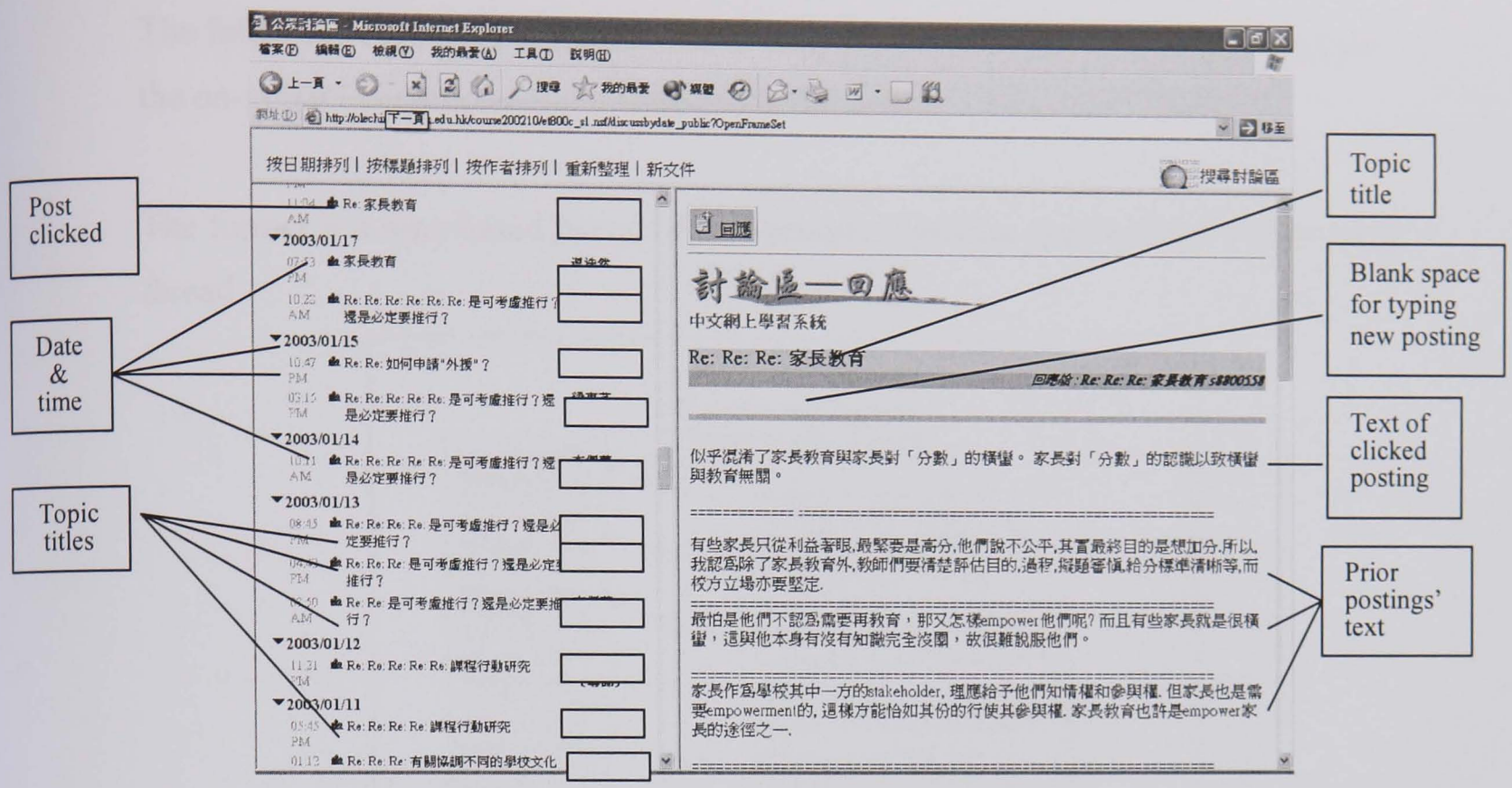
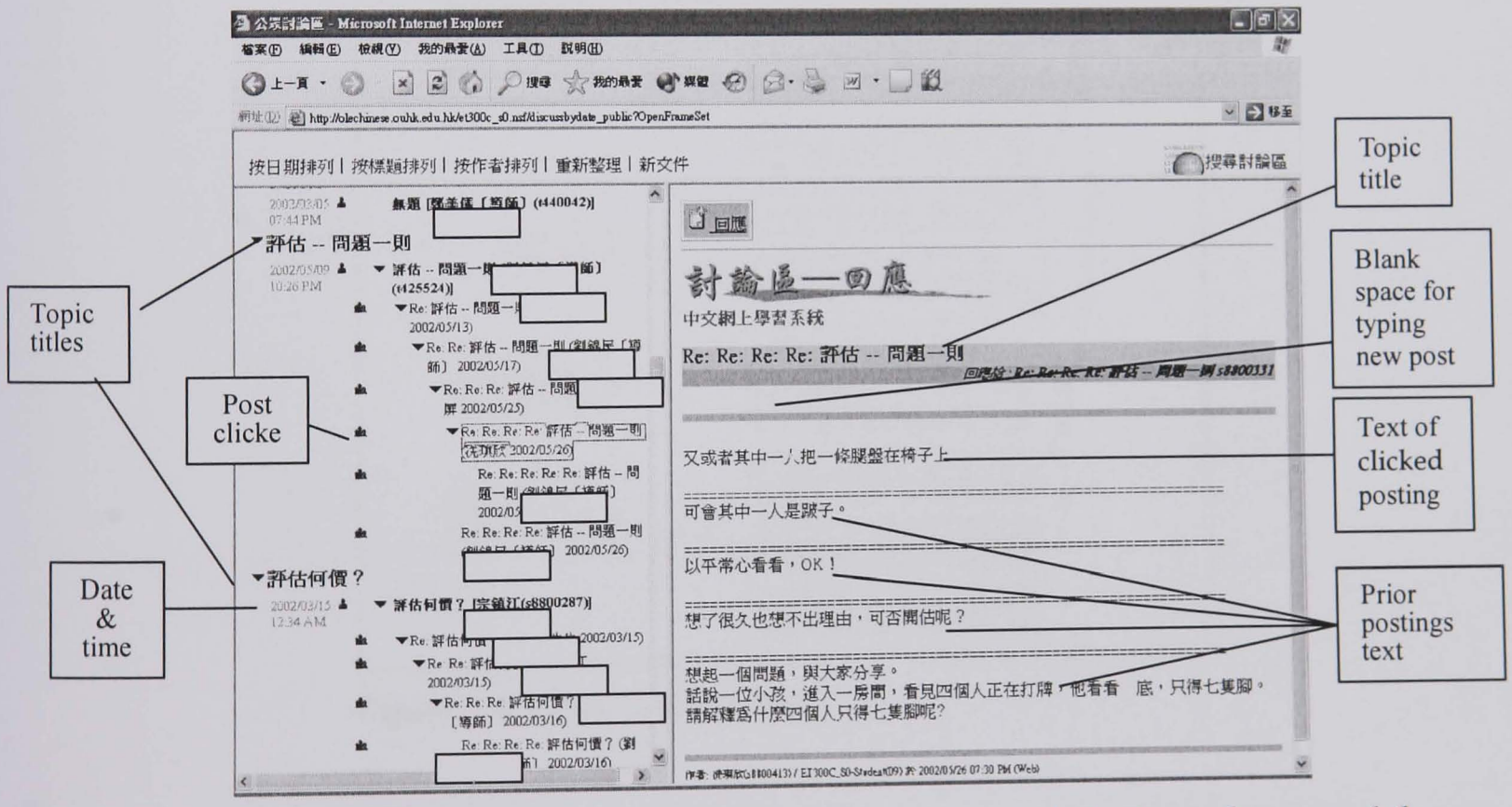


Figure 3.2 Interface for indexing by date



Note: [ ] in the figure is used by the researcher to hide the real names of the participants.

Figure 3.3 Interface for indexing by topic title

The following Figures 3.4 and 3.5, which were produced by the researcher, illustrate the on-going interactions in the Web-based discussion.

The former is a time-based thread of the discussion process and the latter a title-based thread.

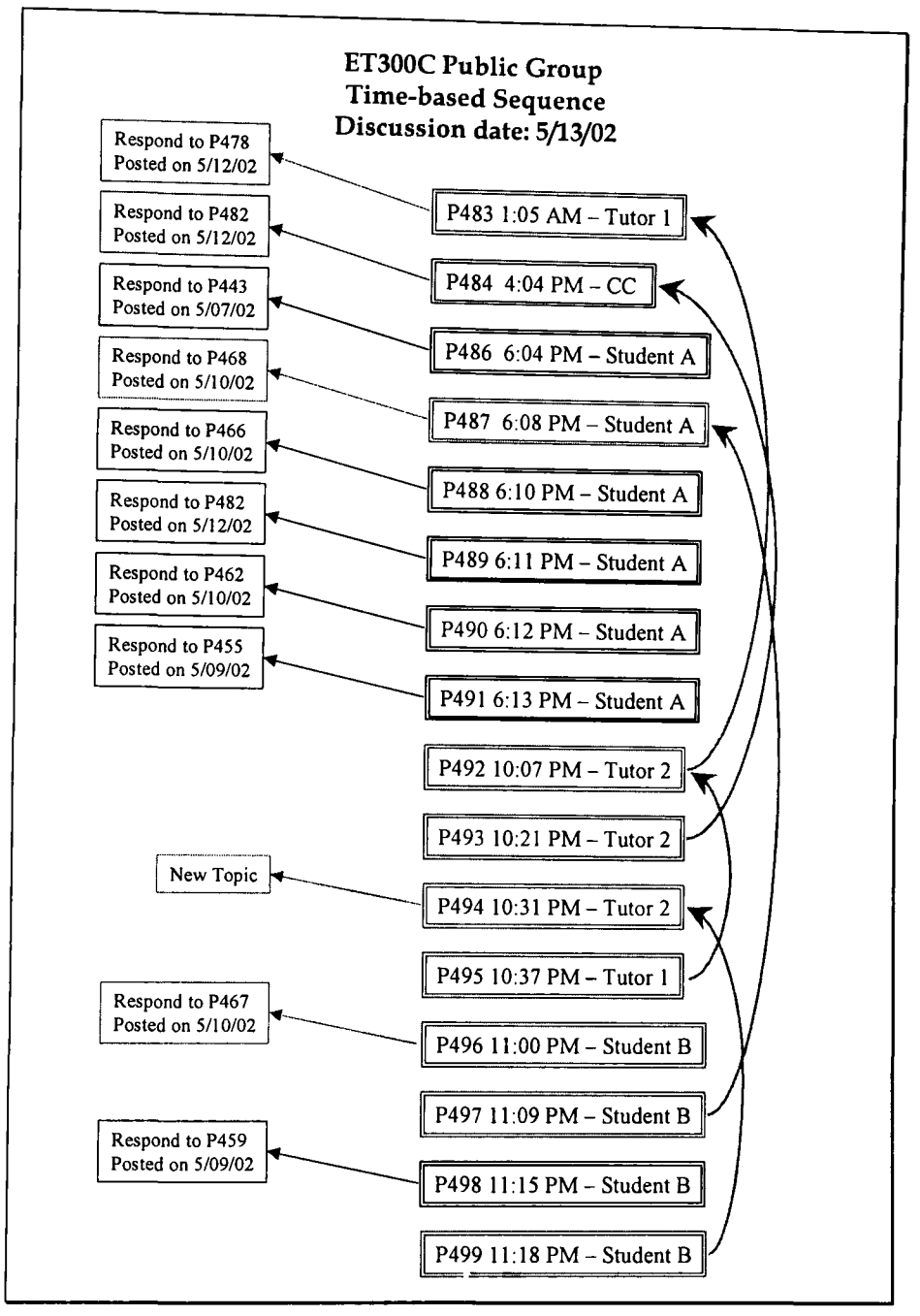


Figure 3.4: a time-based thread

The time-based thread above relates to discussion among students, tutors and the Course Coordinator on 13 May, 2002. As can be seen, on that day there were 17 postings on the discussion board by five participants including two tutors, two students and the Course Coordinator. (P485 was a blank posting posted by Student A at 6:03pm, which is not shown on the Figure 3.4).

During the nine minutes from 6:04 pm to 6:13 pm, Student A (SA) sent six postings responding to former postings, which were posted on the discussion board on the dates 7, 9, 10 and 12 May. However, SA did not respond to the postings by Tutor1 (T1) and the Course Coordinator (CC) early on the same day (1:05 am and 4:04 pm). In return, SA got only one response, from Student B (SB, 11:09 pm), out of his six messages sent out on the same day. T1 and CC got a response from T2, but received nothing from SA and SB. T2 made a response to T1 and received a reply from T1 as well.

Also, during the 18 minutes from 11:00 pm to 11:18 pm, SB made four turns to respond to two messages, which were posted on the discussion board on 9 and 10 May, and also responded to two messages, which were posted on the same day by SA and T2.

Figure 3.5, a title-based thread (see overleaf) shows that some rather odd things happened in the title sequence. For example, P517 replied to P512, and P534 replied to P517; but four postings between P512 and P517, and 13 between P517 and P534 are missing from the sequence, since they were involved in other topic sequences. The figure also shows that there were some sub-sequences in the title sequence. For example, P617, P641, P646 and P656 compose a sub-sequence parallel to the other sub-sequence composed by P520, P522 and P533.

The index is a practical route-map for the discussion activity, particularly for title-based threads. For example, a posting that replies to other postings under the same title or topic has the English abbreviation 'Re' in front of it when it appears on the screen; and if a posting replies to a second posting which already has a 'Re', it has a double 'Re' in front of it on the screen, and so on.

Later in the thesis, it will be seen that the title-based thread is used mainly for analysing the organizational sequence of conversation on the Web. Because the Web-based discussion is multi-person multi-topic conversation, the title-based thread can be helpful for examining conversational sequence under the same topic title, while the time-based thread can help to show other features of Web-based discussion which are not the focus of the present investigation.

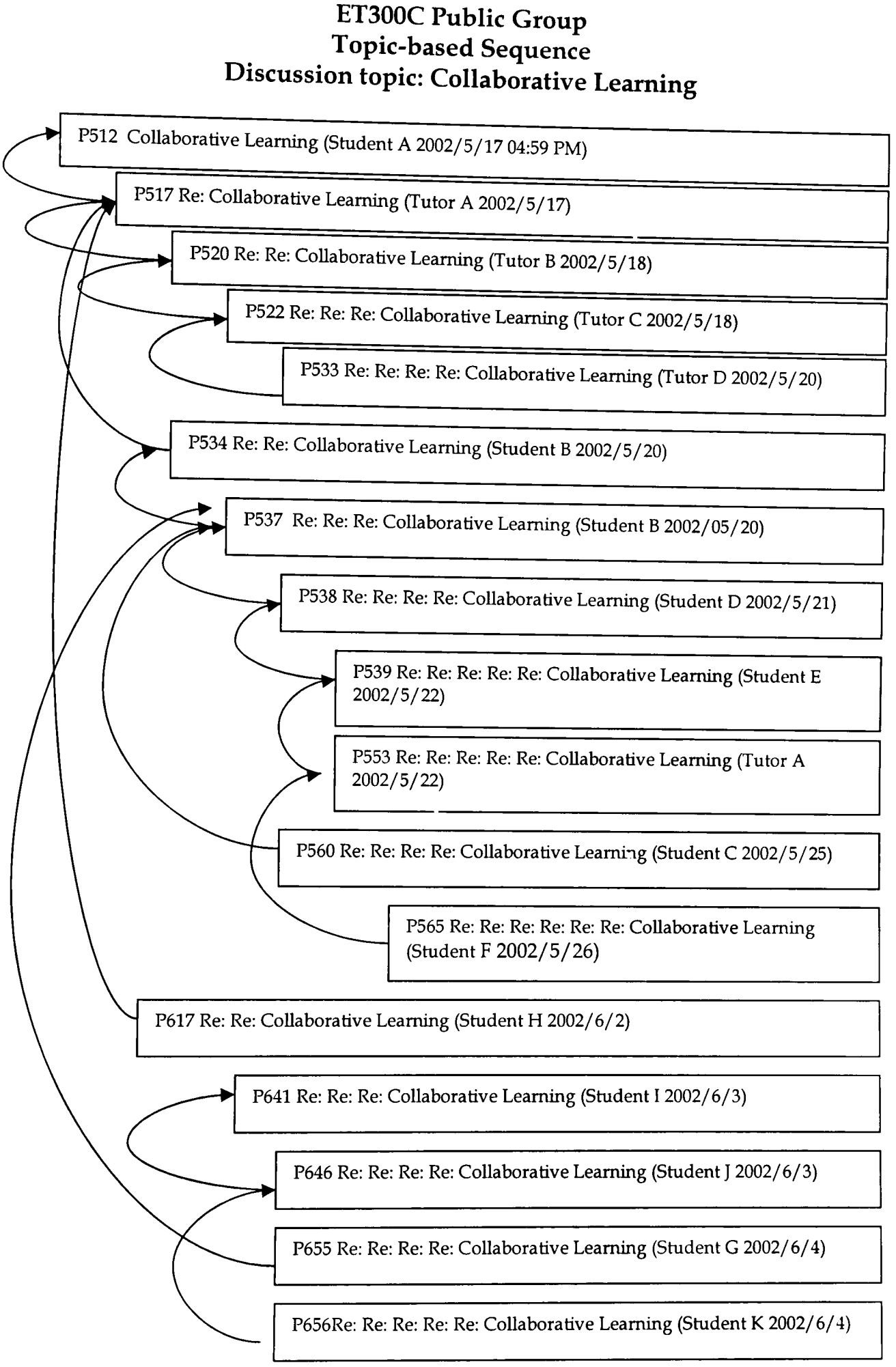


Figure 3.5: a title-based thread

As discussed in Chapter 2, in asynchronous Web conversation turn-taking appears to be disorderly. However, using the topic index to look back at the trajectories of conversation, it can be seen that Web-based discussion is organized in an orderly fashion from a CA perspective. That is, it is the product of an organization that relates the positions to each other, and has features similar to those indicated by Schegloff et al. (1977, p. 373) for face-to-face oral conversation. For example, in Figure 3.5, under the same topic of Collaborative Learning, P517 replies to P512, and P520, P522 and P533 follow one by one in responding to each other.

As in other asynchronous CMC, in the OLE system the text cannot be sent until the sender clicks the 'send' button in the interface. Also, there is no limitation on text length. For more details about the length of postings, see Tables 3.3 and 3.4.

Table 3.3 Characters and sentences in the Web-based discussion boards

	ET300C	ET800C	Total
Total sentences	3877	7719	11,596
Total postings	1952	2056	4008
Total characters	158,619	332,834	491,453
Average number of characters in each sentence	40.91	43.12	42.38
Average number of sentences in each posting	1.99	3.75	2.89

Table 3.4 Frequency distribution – characters per sentence

Character count	Number of sentences (ET300C)	Frequency		Number of sentences (ET800C)	Frequency	
5 or below	149	3.84%	3.84%	326	4.22%	4.22%
6–15	687	17.72%		1201	15.56%	
16–25	803	20.71%		1374	17.80%	
26–35	693	17.87%		1319	17.09%	
36–45	477	12.30%	68.60%	991	12.84%	63.29%
46–55	350	9.03%		673	8.72%	
56–65	226	5.83%		516	6.68%	
66–75	165	4.26%		353	4.57%	
76 or above	327	8.43%	27.55%	966	12.51%	32.48%
TOTAL	3877	100%		7719	100%	

The two tables above show that although there is an average of 42.38 characters in each sentence, about two-thirds of the sentences contain between six and 45 characters. The biggest proportion of sentences contains 16–25 characters, making up 20.71% and 17.80% respectively of the two discussion boards. The average length of a posting was 2.89 sentences. However, these figures provided aim to give a picture of the text data produced in the discussion boards only, not imply any unit of analysis. The issue of the unit of analysis is discussed in detail in the next section.

Because of the characteristics of Chinese use in Hong Kong, the written form of Chinese (Modern Standard Chinese) was mainly used on the two Web-based discussion boards. However, because of the linguistically complex context, 'Hong Kong Chinese professionals generally use Cantonese or mixed-code (i.e. Cantonese mixed with English terms) in work-related interactions with local colleagues and clients' (Evans and Green, 2001, p. 265) – the phenomenon of code switching or code mixing between Chinese and English can be found in the data. For instance, although there were not many examples, some of the postings mixed these languages and some were initiated in English but were responded to in Chinese, or vice versa.

Individual postings to a group are saved and distributed as they come in, which may be at any time, and may be separated by any period of time. Each discussion group has its own interactive activities, which vary from group to group in terms of the frequency of message posting and posting intervals. For example, the Public Groups in both courses usually had several postings every day, and sometimes as many as 28–30 arrived in a single day (ET800C, August 2002; January, 2003). Other groups had about 100 postings over the whole duration of the course (several months), and sometimes received no postings for several weeks — for example, ET800C Group 2 in September and December, 2002; ET300C Group 4 in April, May and June 2002; and ET300C Group 6 in April, 2002 (see Appendix V(a) and V(b)).

This section has given a brief profile of the OLE discussion boards to provide background and basic information about the data source of this study. Though not all the aspects mentioned are used directly in each stage of the study, they help in understanding the situation, context and specific factors in the setting of this research.

3.3 Data analysis

As discussed earlier, while the first phase of data analysis falls within the scope of CA, the second phase employs a quantitative method to analyse data in order to provide evidence on the frequency of occurrences of repair. Therefore, the data analysis involved two procedures – qualitative analysis (conversation analysis) and quantitative analysis (content analysis together with discourse analysis) which were carried out one after the other for different purposes.

3.3.1 Procedures for qualitative analysis – a CA approach

As mentioned in the previous section, the Web-based discussion boards included an indexing function. All the postings were retrieved, indexed by title-based thread and number coded.

Each posting was examined carefully within its context and each event related to troubles or trouble-repair in speaking/writing, hearing/reading and participants' understanding was immediately captured and marked. The relationship between relevant postings was traced further and grouped as sequential episodes because, unlike oral conversation, postings in the Web are not usually in a logical order. For example, when a post (P521, in Excerpt 19, see section 4.2.2) was captured as an event of repair initiation (the posting raises a question 'After the students leave school, how can class observation be conducted by teachers?' which requests a repair), the analyst needs to find where the trouble source has been placed; the trouble source post (P511) was eventually found, and then the two postings, P511 and P521, were put together as an interactional sequence for further analysis.

During the process of discovering relevant natural events from the data, pre-defined concepts or pre-established models from other research did not work entirely. For example, no events fitted the self-repair pattern of 'reordering' discovered in Chinese conversation data in other studies (Chui, 1996); but the analyst did find recurring events which can be seen as special mechanisms for keeping the Web-based discussion going, and which have never been reported in other CA research (e.g.,

duplicate postings and reformatted postings). Although some results of the analysis are comparable to those found by other researches in related areas (e.g., repair in oral Chinese CA, English CA and computer-mediated communication), again the analysis at this stage of the study did not look for events in the data to fit into pre-defined models or patterns.

Events found in the data were further analyzed case by case. Attention was given to the specific repair circumstances being examined, as some cases may seem to be very similar examples of repair but may not embody the same structure in a specific repair circumstance. For example, the participants in P094 and P234 (Excerpts 12 and 23, see section 4.1.2.3 and 4.2.5) both used 'sorry' as their first word, but when the context was examined, they occupied different position in each sequence:

> Sorry. Unable to open the attached ppt file. ... I'm trying to email it once to see if it works. (P094)

In this case, 'Sorry' is used as a self-initiation techniques for self-repair;

> Sorry, attachments cannot be found. Send them again, please. (P234)

In this case, 'Sorry' is other-initiation for repair.

Therefore, both the above examples were given the notation 'initiation', but were classified as different category – 'self' and 'other' respectively.

After all relevant cases drawn from the data had been analyzed and coded, the analyst worked out a general classification system for the techniques used in the Web-based talk-in-interaction, and named each category along with a typical example. Although the basic names used for categories or patterns are the same as those in the CA tradition and other research – such as 'self-initiation' and 'other-repair' or 'correction', 'repeat', 'different expression' – they were given because of real events found in the data, not because suitable events were looked for to fit the names.

3.3.2. Procedures and techniques for quantitative analysis – Content Analysis and Discourse Analysis approaches

Because various patterns of repair were found and classified, and categories constructed, in phase 1 of the data analysis, the foundation was already available for the quantitative analysis in phase 2. Both Content Analysis and Discourse Analysis were employed as methods for obtaining the frequencies for each category of repair pattern.

Units of analysis

Since 'unit' is more important in both Content Analysis and Discourse Analysis than in CA, the procedures involved in phase 2 are detailed below.

A 'unit of analysis' is the smallest component of texts in which the occurrence and the characterization of variables are examined (e.g., Titscher et al., 2000, p. 58). As both Discourse Analysis and Conversation Analysis are concerned with the study of 'the language above the sentence or above the clause' (Stubbs, 1983, p. 1), the unit of analysis in this phase is an 'utterance', a discrete unit of talk produced by a single speaker. As explained before, in the setting of Web-based talk-in-interaction, 'posting' can be considered the equivalent of 'utterance', and so 'posting' is used as the essential unit, which can be defined not syntactically, but semantically basis, for data analysis in phase 2.

Because the text is already broken down into utterances or postings on the computer screen, there is no need to work on unit division during the process of data analysis.

Categories and pilot analysis

All units of analysis were coded and allocated to a certain category(ies). The system of categories was established at the completion of phase 1, and was already illustrated with examples during the process of analysing repair organization, e.g., the special features of repair structure, the forms of technique for initiation, and the patterns for

repair. This facilitated the allocation of all units, and also allowed further discussion and modification of the definitions of categories or patterns during the pilot coding process.

The categories were established at different levels – major categories and sub-categories. There were two major categories: self-repair and other-repair; and the sub-categories included eight items. For instance, under the major category of self-repair, there were the following four sub-categories:

Major category:	Self-repair
Sub-category:	Self-initiated self-repair
	Self-initiated no repair
	Other-initiated self-repair
	Self-initiated failure repair

Each category was also broken down into dimensional patterns, with the following ten patterns allocated under each category:

Correction
Complement
Clarification
Explanation
Different expression
Confirmation
Rephrase
Combination
Reformat
Repeat

The pilot analysis exercise started with about 100 sequential posting samples (the first 100 in order were selected) from each public discussion board, which constituted about 5% of the total number of postings in the data.

Noted below are some specific issues concerning primary category definitions and coding problems discovered in the pilot analysis, along with modifications made, to illustrate how the actual coding and classification were conducted:

1 For the category of self-initiation, participants sometimes used the form 'in other words' to speak about things from a different perspective or in a clearer way. Is this a form of 'self-initiation self-repair'? After further reference to Schegloff et al.'s illustrative examples of 'repair' (1977, p. 363) , in which 'word search' is included in the domain of 'repair', it is believed that cases involving 'in other words' could be classified as 'self-initiation self-repair'.

2 Also, on occasions, participants posted supplementary messages after their original message, which had no real 'trouble': the speaker simply wanted to add more. Does this belong to the category of 'self-initiation self-repair'? As Schegloff et al. (1977, p. 363) provided examples of cases of repair being initiated without an apparent error, it appears that nothing, in principle, is excludable from the class 'repairable'. So, once again, it was decided that such supplementary text would be viewed as self-initiation self-repair.

3 Disagreement, which normally involves an objection to a previous view, idea, or proposal, is a very complex issue. At the start of the analysis, it was considered that disagreement does not propose or clarify 'troubles' regarding speaking, reading or understanding in the Web-based discussion. Therefore, it was excluded from the category of 'other-repair'. However, after examining further the theoretical basis of the concept of 'repairable', disagreement has also been analyzed case by case to see if there are any special instances of repair practice. Below is an example to illustrate the case of disagreement in data and relevant techniques used for analysis.

Example 1

No.	Date/time	Sender	Title	Content
P298	2002/10/25 09:29PM	Mr Wan (T)	Collective lesson preparation	...Collective lesson preparation can help to gather teachers' experience, so it exceeds the limits of 'lesson preparation'.
P299	2002/10/26 05:39PM	Mr Lau (T)	Re: Collective lesson preparation	Since it exceeds the limits of 'lesson preparation', → it is no longer 'collective lesson preparation'.
P300	2002/10/26 08:19PM	Mr Wan (T)	Re: (2) Collective lesson preparation	→ I have raised this point several times before - that the actual meaning of 'collective lesson preparation' has exceeded the limits of 'lesson preparation'. A relevant reference can be found in the document 'Learning to Learn: Lifelong Learning' (2001, pp. 66-67).

In Example 1, Mr Lau in P299 did not use the disagreement form 'I do not agree (with what you said)', but actually objected to Mr Wan's viewpoint in P298 by saying that 'it is no longer "collective lesson preparation"'. This is an obvious example of disagreement. Because it was related to trouble in the prior speaking, P299 can be classified as other-repair. However, as it also involved trouble in understanding the prior speaking, the disagreement in P299 immediately became a trouble source on its own, and received a repair from Mr Wan (P300). Such examples of disagreement therefore need to be examined carefully, case by case.

4 The pilot coding also raised some difficulties with the counting of frequencies, as illustrated in the example below.

Example 2 (Excerpt 1)

No.	Date/time	Sender	Title		Content
P019	2002/07/23 01:17PM	Ms Chan (S)	Re: Curriculum Development	(3)	((The screen shows all Chinese characters in an illegible code))
P020	2002/07/23 01:20PM	Ms Chan (S)	Re: Curriculum Development	(3)	→ Let me make a response. ((no actual response made))
P021	2002/07/23 01:21PM	Ms Chan (S)	Re: Curriculum Development	(4)	→ Let me make a response. 'Please see attachment' ((with no attachment))
P023	2002/07/23 03:09PM	Ms Chan	Re: Curriculum Development	(5)	→ Let me make a response. 'Please see attachment'. ((with an attachment))

The repairs (marked with arrows) in the above example, which were issued by the speaker of the trouble source (Ms Chan), are illustrations of self-repair self-initiation. However, in P020–23, three postings are definite repairs that were made by the speaker who tried to correct her mistake in P019, but two of them become other trouble sources. The technical issue here is whether this should be counted as three self-initiation self-repairs or just one. As the quantitative method is rarely used in the CA tradition, there is no relevant reference for establishing a set of counting rules for repairs but, after considering the situation of the discussion taking place on a Web-based discussion board, it was decided to count it as three self-initiation self-repairs. In other words, all occurrences or distributions of repair should be counted, no matter in what order or context.

Coding and reliability

For the purpose of ensuring reliability, a trained research assistant (RA) who has linguistics background knowledge was invited to assist in the pilot and real classification and coding work (again, her name is shown in the Acknowledgements on first page of this thesis). Following discussion between the researcher and the RA,

the coding scheme was revised during the pilot analysis which about 5% of the data had been coded.

After the pilot coding exercise had been conducted and the schema of categories stated precisely, the actual coding process started. The classification work was carried out separately, and the coding and categorization processes were repeated until an acceptable level of reliability was reached. For example, in classifying repair patterns, after discussion and repetition, 90.2% of the research assistant's codings were the same or very similar to those of the researcher.

Frequencies and relationships

After all the units had been coded in line with the categories, the analysts counted the frequency of the units. Special attention was paid to the relationship between each category and pattern by reviewing their number of recurrences. The different frequencies for each category/sub-category and each dimensional pattern were then put into a hierarchy in their own series. For example, the highest frequency for the category of self-repair was self-initiation self-repair with 85 cases, compared with 28 cases of other-initiated self-repair, and so the sub-category of self-initiated self-repair was placed first in the major category of self-repair.

3.4 Transcription of the Chinese data

Most data reported here were originally presented in Chinese and appeared in written form on the computer screen. (In some cases, participants used English or a mixed code of Chinese and English in their discussion, and the relevant notations are made on the transcription.)

For the purpose of analysis, data need to be put into an analysable format. Though there are transcription systems for spoken discourse in English and other Western languages, such as French, Spanish, Dutch, Italian, Finnish (cf. Lenk, 1999, pp. 21–24), there is no equivalent for Chinese. For spoken Chinese, there is no unified transcription system, with Chinese researchers relying on a mixture of transcription symbols derived from those used in CA for English. Also, Web-based Chinese written text, which has not yet been collected as a data source for conversational study, seems to have no established transcription system at all. Although establishing a system for Chinese transcription was not one of the aims of this study, a suitable form specially designed for Web-based written text in Chinese had to be developed.

The CA perspective on transcription emphasizes that 'the transcription system is not just aimed at accuracy of detail. Like all transcription systems, it is designed to highlight analytically relevant features of talk-in-interaction' (Hutchby and Wooffitt, 1998, p. 88). This viewpoint coincides with the basic 'theory' or 'principles' for transcription generally suggested by researchers (e.g., Du Bois, 1991; O'Connell and Kowal, 1995). The transcription system designed for this study adopted the general principle of 'parsimony'(O'Connell and Kowal, 1995, p. 654), i.e. only those data which are to be analysed should be transcribed, and only what makes analyses intelligible should be presented in transcripts. As a piece of data is subjected to closer and closer analysis, 'the transcript itself evolves as part of that analytic process', and there is 'a close connection between data, transcription and analysis' (Hutchby and Wooffitt, 1998, p. 92). Therefore, for this research, the data was transcribed only to suit the needs of analysing the sequential organization for repair taking place in Web-based talk-in-interaction.

As noted in Chapter 1, this study does not aim to explore the relationship between conversation organization and syntax or syntactic constraints in analysing conversation. The English translation of Chinese transcription is not provided for the presentation of Chinese syntax or lexical features, but is used mainly as a means of understanding data and of showing the nature of sequential organization of the Web-based talk-in-interaction in reporting the study. With reference to the Chinese transcription format used in other CA studies (e.g., Zhang, 1998), in the main body of the chapters, the data presentation uses only the English gloss translation, not a word-by-word translation or grammatical description. In cases where glosses in the English translation could not represent accurately the original Chinese words, Chinese *Pinyin* is used instead of the English gloss.

Some special symbols are employed in the transcription. – for example, the portion of the transcription under scrutiny is indicated by underlining. Overall, the transcription format was carefully designed to present the data in an orderly, simple, and clear way which would be readable and meaningful for the reader. An example is given below to illustrate the format of the transcription.

Example 3 (Excerpt 2):

No.	Date/time	Sender	Title	Content
P2392	2002/04/08 11:44 PM	Ms Tang (T)	Re: (2) School-based curriculum development	...There is an excellent article in the website of "*Minjiaowang*" in the Mainland which analyes the differences between school-based curriculum and the national curriculum...The website is: http://www.pep.com.cn/kechengicyjs/2002-3/86.htm...

As can be seen, there are five columns for displaying the relevant information about the data. In the column 'No.', P2392 indicates the data number coded by the analyst for this study; the column 'Date/time' gives the precise time at which this posting was received in the discussion board (8 April, 2002 at 11:44pm); the column 'Sender' shows that the sender was named Ms Tang (Tang is the person's Chinese surname in *Pinyin*) who was a tutor of the course; in the column 'Title', Re:(2) indicates that this posting is the second response to the discussion topic, which in this case is 'School-based curriculum development'; finally, in the column 'Content', the text is a free

gloss English translation by the analyst. Within the English translation text in the "Content' column, the ellipsis '…' at both the beginning and middle of the main paragraph indicates that some words in the original Chinese text of this posting are omitted, because they contain non-relevant features of the talk-in-interaction under scrutiny. The name of the website "Minjaowang" is represented in *Pinyin*, not English gloss, because it is an abbreviation in Chinese which could not translated accurately into English; and also, because this abbreviation is a specific element (a repairable, or trouble source in this case) which needed to be analysed (in this case, for repair), the symbol 'underline' is used to draw the reader's attention to this special phrase in the transcript.

The original Chinese texts, which used the same format as the English translation transcription, are attached at the end of the thesis as an appendix (Appendix VI) to facilitate presentation and proofreading of the data, and in case the reader may wish to examine the original text.

Finally, because the transcription of Chinese data from a Web-based discussion board seems less complicated than transcribing spoken data of ordinary conversation, besides some transcription notation adopted from transcription conventions applied to CA, only a few notations have been specially developed for the study (see details in Appendix I for the transcription conventions).

Chapter 4

Findings and discussion

This chapter examines the repair organization in Chinese talk-in-interaction in Web-based conversation — in the light of the repair organization for English introduced by Schegloff et al. (1977), and also the findings on repair organization for Chinese oral conversation, which were reviewed in Chapter 2. It begins by introducing some findings about several characteristics of the organizational structure for repair in Web-based conversation, and then classifies the forms of initiator techniques and patterns of repair accomplishment in order to understand the organization that relates them in particular environments. The next section reports on preferences for repair organization, and this is followed by a discussion of the findings in the last section.

Before considering the repair structures, it seems useful to make a brief comment on some of the symbols used in the illustrative examples from the data in this study (full details of the transcription conventions can be found in Appendix I). The data presented in this chapter are based on written texts in Chinese that occurred naturally in Web-based discussion boards and were translated into English to be consistent with the language used in the thesis. In some cases, these original texts were made up of very long paragraphs or had a very large number of words. Therefore, some special symbols had to be used in the data citations, such as: the texts in the English translated version have been simplified by omission with ellipsis; arrows indicate the location of the repair phenomenon for which a segment is initially cited; words in double parentheses indicate comments about the text, not transcriptions of it; and underlining is usually used to refer to repairable (trouble in the source) or repair outcome.

4.1 Repair structures in Web-based conversation

Repair as 'self-righting mechanism' exists in Web-based conversation where one participant sometimes needs to repair something another has said. As with repair organization in oral conversation, repair operating in a Web-based conversation has its organizational structure. The following two sections report the results of examining repair structures in Web-based conversation for the same features as, and for different features from, ordinary conversation (see sections 4.1.1 and 4.1.2 respectively).

4.1.1 Possible structures for repair in Web-based conversation

Four possible structures for successful repair and two possible structures for failure of repair as identified by Schegloff et al. (1977) in ordinary oral conversation conducted in English have also been found in Web-based conversation in Chinese. Noted below are examples of each kind of structure occurring in Web-based discussion boards.

4.1.1.1 Self-initiation self-repair

It was found that self-repair can issue from self-initiation in Web-based conversation, as seen in the following examples (Excerpt 1 and 2).

Excerpt 1:

No.	Date/time	Sender	Title	Content
P019	2002/07/23 01:17PM	Ms Chan (S)	Re: (3) Curriculum development	((The screen shows all Chinese characters in an illegible code))
P020	2002/07/23 01:20PM	Ms Chan (S)	Re: (3) Curriculum development	→ Let me make a response.
P021	2002/07/23 01:21PM	Ms Chan (S)	Re: (4) Curriculum development	→ Let me make a response. 'Please see attachment' ((with no attachment))
P023	2002/07/23 03:09PM	Ms Chan (S)	Re: (5) Curriculum development	→ Let me make a response. 'Please see attachment'. ((with an attachment))

In this extract, Ms Chan, a student in the discussion group, responded to the discussion topic 'Curriculum development'. As her first response (P019) was typed straight on to the web in Chinese using a special code, the screen showed all the Chinese characters she typed as being illegible when she posted them on the discussion board at 01:17PM, 23 July, 2002. Three minutes later, 01:20PM, when nobody had noted the problem of reading her Chinese characters (no other issued initiation), Ms Chan sent a second posting saying 'let me make a response' (self initiation with an attempt of self-repair, P020). This was obviously an attempt to make her response again to repair the trouble source of her prior posting. Then, after one minute, 01:21PM, Ms Chan found that the second response was incomplete, because she should have attached a file, without which the same problem with the special Chinese code would occur again. So, she sent a third posting, which added 'Please see attachment' (P021). However, as in P020, while the third posting was a repair to prior postings, it also became a trouble source, as there was no file attached, even though the posting said there would be. After more than an hour and a half, at 03:09PM, Ms Chan sent her fourth posting with a Word file attached, which contained her response with a text that could be displayed on screen. The result was that the last repair accomplishment eventually solved the problem in Ms Chan's prior turns in response to the topic.

It should be noticed that, within the repair sequence in Excerpt 1, initiation for repair was all issued by the speaker of the trouble source herself, and the repair was also accomplished by her. In other words, this is an example of self-initiation yielding self-repair, and the self-repair is not done in the same turn with the trouble source, but in the next one.

Excerpt 2:

No.	Date/time	Sender	Title	Content
P2392	2002/04/08 11:44 PM	Ms Tang (T)	Re: (2) School based curriculum development	...There is an excellent article in the website of "Minjiaowang" in Mainland analyzing the differences between school-based curriculum and the national curriculum...The website is: www.pep.com.cn/kechengicyjs/2002-3/86.htm...
P2393	2002/04/08 11:48 PM	Ms Tang (T)	Re: (3) School based curriculum development	I'm sorry, the name of the web site should be corrected as → "Renjiaowang". The internet address is: www.pep.com.cn/index1.htm.
P2394	2002/04/08 11:56PM	Ms Tang (T)	Re: (4) School based curriculum development	→ The "Renjiaowang" http://www.pep.com.cn/index1.htm provides many articles about curriculum research, such as educational reform, curriculum theory, curriculum history, educational materials research, case research, etc. This will help our colleagues in HK to understand the educational reform in China...

In Excerpt 2, Ms Tang discovered an error she made in P2392 where she provided the incorrect name and address for a website. She issued a self-initiation and then accomplished a self-repair in P2393 at 11:48pm. After eight minutes, at 11:56pm, she sent her third posting, which also dealt with the repairable in posting P2392. In P2394, Ms Tang also made a self-repair by providing supplementary information about the website.

As with Excerpt 1, the correction (P2393) and the supplement (P2394) in Excerpt 2 were issued and operated by the speaker of the trouble source. They are typical of self-repair issued from self-initiation. Also, Excerpt 2 is again an example of self-initiation taking place in the next trouble source turn, not in the same turn.

4.1.1.2 Other-initiation self-repair

Some sequences of other-initiated self-repair were also found in the Web-based conversation, such as:

Excerpt 3:

No.	Date/Time	Sender	Title	Content
P2541	2002/05/13 01:05 AM	Mr Wan (T)	Re: Problem-solving (5)	… The precious aspect of the process of "teaching" and "learning" is to help the students to obtain the key to tackle difficulties…
P2550	2002/05/13 10:07 PM	Mr Lau (T)	Re: Problem-solving (6)	→ Is there any difference between problem-solving and ((tackle)) difficulties?
P2553	2002/05/13 10:37 PM	Mr Wan (T)	Re: Problem-solving (7)	→ ((both are)) Solving the difficulties

In Excerpt 3, Mr Wan used the term 'tackle difficulties' (P2541) in his turn instead of the term 'problem solving', which was commonly being used by participants in the discussion process. Mr Lau then issued initiation for the 'repairable' by asking a question involving identifying the difference between the two terms – 'problem-solving' and 'tackle difficulties' (P2550). Subsequently, the speaker of the trouble source, Mr Wan, accomplished self-repair by clarifying that '((both are)) solving problems' (P2553). This is an example of other-initiation yielding self-repair.

Excerpt 4:

No.	Date/time	Sender	Title	Content
P296	2002/10/24 07:54PM	Ms Fung (S)	Re: Collaborative lesson preparation (11)	I agree with Ms Leung's view on 'collaborative lesson preparation', and feel that there are many advantages in that activity. …… Implementing collaborative lesson preparation is not an easy task. However, from our many years experience, its advantages go beyond its disadvantages. Therefore, it is worth it to try.

P297	2002/10/24 09:15PM	Mr Lau (T)	Re: Collaborative lesson preparation	(12)	I believe there are advantages in implementing collaborative lesson preparation. You mentioned that it's not easy to implement. → Can you explain the actual difficulties in detail?
P303	2002/10/29 10:12PM,	Ms Leung (T)	Re: Collaborative lesson preparation	(5)	My school teachers need to stay in the office by-weekly to meet together or have a collaborative lesson preparation. But sometimes there may be several meetings needed for one teacher. So it is difficult to make a suitable schedule. → Are there any other suggestions for our reference?
P307	2002/10/31 3:21PM	Ms Fung (S)	Re: Collaborative lesson preparation	(6)	→ I'd like to respond to the questions raised by both Tutors Mr Lau and Ms Leung. As my school is a half-day primary school, the use of time and space is the most serious issue. So, we will perform three collaborative lesson preparation sessions in every term. The restriction of time and venue in the summer vacation is less than other periods, so we'll discuss and set the curriculum, progress and activities of the whole academic year....

The topic under discussion in Excerpt 4, 'Collaborative lesson preparation', was first put forward by the tutor, Ms Leung (as indicated in P296, 'I agree with Ms Leung's view on 'collaborative lesson preparation, and feel that ...'). Later, however, the on-going discussion dispersed into two threads. Before P296, there were 11 postings which formed the first thread [as (11) follows 'Re' in the 'title' column]; and, before P307, the second thread contained six postings already, as Re: (6) shows.

Excerpt 4 shows a repair sequence involving a somewhat more complex situation. Following Ms Fung, who was the speaker of the trouble source in P296, Mr Lau initiated a request for a further explanation of the 'difficulties in detail' of collaborative lesson preparation (P297) at position Re (12) in the first thread. The trouble-source speaker, Ms Fung, accomplished repair in her turn P307. However, her response was not only to Mr Lau (Tutor), but also to Ms Leung (Tutor) who was issuing another initiation in the other thread, asking for 'any other suggestions for our

reference' in P303. This kind of other-initiation self-repair appears often in asynchronous Web-based conversation, and is discussed again from another angle in section 4.3.8.

4.1.1.3 Self-initiation other-repair

As in ordinary conversation, in Web-based conversation other-repair can issue from self-initiation:

Excerpt 5:

No.	Date/Time	Sender	Title	Content
P2496	2002/05/06 07:13 PM	Ms Lau (S)	Teacher's role in "Central curriculum" and "School based curriculum"	Teacher's role in "Central curriculum": 1. To take central curriculum as a blueprint, and adapt it according to individual school's situation; 2. To make some reflections on central curriculum. … Do you agree with my points? Do you have any supplementary viewpoint on them?
P2501	2002/05/07 09:08 AM	Mr Tang (CC)	Re: Teacher's role in "Central curriculum" and "School based curriculum"	→ If we can really reflect on the central curriculum, then the central curriculum would not be the blueprint. If the central curriculum must be the blueprint, it need not be reflected on.

Excerpt 5 is an example of other-repair issuing from self-initiation. The other speaker (Course Coordinator) accomplished a repair in his turn (P2501) following an initiation issued by the trouble-source speaker herself, which was shown by two questions asking for confirmation and complementary views (P2496). This shows that some other-repair can issue from self-initiation, as speakers may initiate some troubles within their turn for others to accomplish repair.

4.1.1.4 Other-initiation other-repair

There were also cases of other-initiation other-repair in the Web-based conversation. The following excerpts are some examples.

Excerpt 6:

No.	Date/Time	Sender	Title	Content
P2403	2002/04/12 12:04 AM	Mr Li (S)	Re: (12) Where are the teachers heading for?	I totally agree with the notion "cooperation requires everyone's willingness to give". The problem is that some teachers still believe they should be off duty after school. Who has the ability to balance this situation? Education Bureau? Headmaster? Or…
P2405	2002/04/14 06:46 PM	Mr Lau (T)	Re: (13) Where are the teachers heading for?	→ I don't understand what you're talking about "off duty after school". Why shouldn't the teachers be off duty after school?
P2407	2002/04/15 12:40 AM	Ms Lam (S)	Re: (14) Where are the teachers heading for	'Where are the teachers heading for?' It's an interesting question but that makes me a bit sad. The curriculum reform is school-based. It requires the participation of all teachers in the school in order to succeed. This is where the problem lies! Is everybody willing to spend time and effort to complete this enormous task? Is everybody going in the same direction? → Saying "off duty after school" just reveals the key issue (of the reform).

In Excerpt 6, repair initiation was issued by Mr Lau (P2405), who had trouble in understanding what Mr Li was talking about in saying 'some teachers still believe they should be off duty after school' (P2403). A speaker other than the trouble-source turn speaker, Ms Lam, provided an explanation as a response (P2407) to the tutor, Mr Lau. In this case, the initiation and the outcome of repair were both conducted by speakers other than the trouble-source speaker.

Excerpt 7:

No.	Date/Time	Sender	Title		Content
P2096	2002/03/02 03:14PM	Mr Yeung (S)	Re: Education reform	(2)	Time is always our biggest foe.
P2108	2002/03/05 06:01PM	Mr Tang (CC)	Re: Education reform	(3)	→ Do you mean that if we could eliminate time, we can win the greatest victory?
P2110	2002/03/05 06:13PM	Mr Lau (T)	Re: Education reform	(4)	→ Perhaps when we are not satisfied with current results, we would do better if there were more time. Do you agree?

The repair sequence in this excerpt is other-initiation (P2108) and other-repair (P2110), and they are presented in separate turns, not by the same other speaker — that is, the repair outcome is accomplished by a speaker (Mr Lau) other than the speaker initiating repair (Course Coordinator).

4.1.1.5 Self-initiation with failure of repair

As it mentioned in Chapter 2, repair refers to the success of a repair procedure. However, efforts at repair sometimes fail (Schegloff et al., 1977, p. 363). The same two possible structures for failure of repair are found in Web-based conversation as the same with in ordinary conversation.

Excerpt 8:

No.	Date/Time	Sender	Title	Content
P136	2002/08/13 11:28PM	Mr Lau (T)	Re: The map of treasure hunting in the dark	Thanks for your sharing. I have read it ((the map of treasure hunting in the dark)) briefly and I really appreciate your thoughtfulness and understanding of curriculum reform. You must have spent a lot of time in doing this. This is my first thought. This map is yours and I appreciate your generosity in sharing it with us. So the second is a suggestion. We are a group of people discussing and learning on the Internet and we should follow the rules. We can use this map as

				a reference, but we shouldn't copy it. If we reference it, we'll acknowledge it. What do all you think?
P140	2002/08/14 11:02PM	Ms Wong (S)	Re: (3) The map of treasure hunting in the dark	→ From what you've shared with us, I can say that you have made a lot of effort. I appreciate your knowledge of curriculum. I hope we can continue to share – perhaps this is also the purpose of taking this course!

The above discussion sequence started when a participant in the group offered her self-made 'map of treasure hunting in the dark' which was useful for understanding curriculum reform in Hong Kong. In P136, Mr Lau initiated the repairable item with his own suggestion ('We can use this map as reference, but we shouldn't copy it. If we reference it, we'll acknowledge it. What do you think?'), but, the other speaker, Ms Wong, failed to answer the question Mr Lau asked (P140). This is an example of self-initiation yielding failure.

4.1.1.6 Other-initiation with failure of repair

Failure can also issue from other-initiation in Web-based conversation. Several cases of other-initiation yielding failure are found in the data for this study.

Excerpt 9:

No.	Date/Time	Sender	Title	Content
P2439	2002/04/21 07:54 AM	Ms Wong (S)	Re: (2) Project learning	We have tried doing projects by grouping students. The project group has to constantly report on progress. The grades given are based on the group dynamics (data collection, synergy, communication), plus peers' assessment and parents' assessment. The final product of the project will receive a small portion of the overall result.
P2448	2002/04/22 09:24 AM	Mr Tang (CC)	Re: (3) Project learning	This is a good way ((assessment based on the learning dynamics)) as well. When you are awarding marks to each

				student (for their performance in the group work) for their sharing, do you give the grade directly to students, or just let students grade each other?
P2450	2002/04/22 04:45 PM	Ms Wang (S)	Re: (4) Project learning	→ Our school has implemented projects for years as well. In the past, the teachers gave the topics to the students and the topics were related to general knowledge subjects mostly……

In Excerpt 9, the Course Coordinator issued an initiation (P2448) to the trouble-source speaker, Ms Wong, requesting clarification of the method used for assessing student outcomes in project learning. However, the trouble-source speaker never responded; and another speaker, Ms Wang, who did not clarify the problem raised by the Course Coordinator, offered a failure of repair in her turn (P2450).

Excerpt 9 above provides an example of other (the third person) failure in repair for other-initiation (the second person, if the trouble-source speaker is called the 'first person'). Also, as will be seen in P093 of Excerpt 12 (in 4.1.2.3), the trouble-source speaker may also fail in repair for other-initiation (for whatever reason).

This section has presented the findings on possible structures of repair in Web-based conversation. The above analysis of some examples of the repair sequence from this study's data have shown that the possible structures for both successful repair and failure of repair in Web-based discussion are the same as in ordinary conversation.

4.1.2 Special features of repair organization in Web-based conversation

However, Web-based conversation also has its special features for repair organization. This section presents some characteristics of Web-based conversation which differentiate it from oral conversation by analysing some excerpts in detail.

As has been discussed in previous chapters, Web-based conversation differs from ordinary conversation in several respects, including its written form, the asynchronous interaction, and the medium of the Web. These factors, in turn, influence the turn-taking system and organizational techniques of Web-based conversation, and must also influence its repair organization. The following features from the data in this study show different characteristics from those identified by Schegloff et al. (1977) for repair organization in ordinary conversation in English.

4.1.2.1 Other-initiation one after another

As the Web-based discussion in this study is asynchronous and in a multi-participant setting, other-initiation often issued from more than one speaker other than the trouble-source speaker, and one after another. See, for example, Excerpt 10.

Excerpt 10:

No.	Date/Time	Sender	Title		Content
P031	2002/07/23 10:16PM	Ms Ng (S)	Re: Curriculum development	(5)	I agree that teachers are the core component of the curriculum. Perhaps there is no definite curriculum standard when we're changing the curriculum. If teachers can add the 3C elements to the class, communicate with students and lead students in "learning to learn", we can break the traditional classroom constraints.
P034	2002/07/24 01:16AM	Mr Lau (T)	Re: Curriculum development	(6)	→ What are 3C elements?
P035	2002/07/24 01:45AM	Mr Sun (S)	Re: Curriculum development	(7)	→ Creativity, Critical thinking, Communication

P036	2002/07/24 04:41PM	Ms Lau (S)	Re: Curriculum development	(7)	→ Mr. Lau (tutor), Thanks a lot! I think 3C means Critical thinking, Communication and Creativity. Is that right?
P037	2002/07/24 06:26PM	Mr Wan (T)	Re: Curriculum development	(8)	Very interesting. → I'd like to know where 3C comes from? E.g. scholar, conference, guidance documents, etc.
P038	2002/07/24 10:00PM	Ms Chan (S)	Re: Curriculum development	(9)	→ Not only 3C, but 4C, which includes critical thinking, communication, creativity AND COLLABORATION SKILL. This can be found from *Learning to Learn – The way forward in curriculum development* in the section which mentions the ability – GENERIC SKILLS

This segment provides clear evidence of a special feature of repair in Web-based conversation — namely that in multi-participant interaction discussion, other-initiation can be issued by several speakers (a point which will be discussed in more detail in the next section). The first initiation (P034) issued by Mr Lau, asked the question 'What are 3C elements?' to indicate the repairable item in the prior turn P031. After two responses to the question were received, Mr Wan and Ms Chan then issued their different initiations one after another: Mr Wan asked a question about where 3C comes from in his turn P037, and Ms Chan issued an initiation ('Not only 3C, but 4C') and followed with a correction in the same turn (P038).

In this case, it is obvious that more than one other-initiation can be issued by more than one participant for the same trouble source before any repair is accomplished.

4.1.2.2 Other-repair one after another:

Repair accomplished by not only one speaker (other than the trouble-source speaker), but several others one after another is found in Web-based conversation. These other-repairs can be logical in order, but are usually not.

An example of this special feature in Web-based conversation has been seen already in Excerpt 10 in the previous section. After repair initiation issued by Mr Lau (P034) to show his trouble in understanding '3C elements' appeared in the prior turn (P031), both Mr Sun (P035) and Ms Lau (P036) (not the trouble-source speaker, Ms Ng) accomplished repair one after another separately. It should be noted that, although the second speaker, Ms Lau, put up her posting at 04:41pm, almost three hours after Mr Sun's posting at 01:45pm, the computer system automatically displays the same number of 'Re:'(seven 'Re's) in front of P035 and P036. This means that Ms Lau responded directly to Mr Lau's (P034) question, not following Mr Sun's turn (P035). Therefore, it can be assumed that Ms Lau did not read Mr Sun's message when she responded in parallel to the prior turn P034. (It is a common phenomenon that students pay more attention to tutors' postings and may overlook or pay less attention to peers' message when they enter the discussion board where a large number of postings appear in front of them on the screen.)

Furthermore, one more other repair occurred in the segment. Ms Chan in her turn P038 accomplished repair by responding to the two initiations issued in prior turns (P034 and P037) by answering the questions 'What are 3C elements?' and 'Where does 3C comes from?'; and following her initiation ('not only 3C') in the same turn, Ms Chan also accomplished another repair in P038.

Excerpt 10 not only exemplifies the fact that other-initiation can be issued by several speakers one after another (as discussed in 4.1.2.1), but also that other-repair can be accomplished by several speakers one after another for the same trouble source.

Excerpt 11:

No.	Date/Time	Sender	Title	Content
P101	2002/08/06 11:20 AM	Cao (T)	Role and Responsibilities	... Let us discuss PSMCD's duties and work items (other than those already indicated by Education Department).
P102	2002/08/06 03:02 PM	Mr Tang (CC)	Re: Role and Responsibilities	→ Perhaps it can be your everyone's understanding of your key work.
P105	2002/08/06 09:48PM	Wan (T)	Re: (2) Role and Responsibilities	→ Maybe we can think of them from two aspects: First, teacher's role in curriculum planning/development; Second, PSMCD's role in curriculum planning/development. What is the difference between the two above? .....

Excerpt 11 is another example of the same category of special feature for repair in Web-based conversation: other repair one after another. In P101, Cao's comment about what he proposed for discussion was not very clear. Thus, two other-repairs (P102 and P105) were accomplished by two different participants on the same day (6 August, 2002) but at different times (3:02pm and 9:48pm). It should be noted that the two repairs came one after another, but were not logically ordered.

4.1.2.3 Self-initiation in more than one turn

Self-initiation issued in more than one turn is another feature of repair in Web-based discussion.

Excerpt 1 in an early section of this chapter showed the trouble-source speaker issuing self-initiation as many as three turns until the trouble had been solved (P020, P021 and P023). In oral conversation, this cannot be common, whereas it can occur in Web-based asynchronous conversation. Excerpt 12 below provides one more example of the same phenomenon.

Excerpt 12:

No.	Date/Time	Sender	Title	Content
P090	2002/08/04 12:54 PM	Ms Leung (S)	The compass for curriculum reform?!	…I think I've already found the compass. Based on the key points of the book and my understanding, I drew a concept map. I've also made some versions according to the Guide for Basic Curriculum, which provides more information on it (see attachment). I hope this map can help to restructure the future development of schools in different aspects…
P092	2002/08/05 01:53 AM	Mr Lau (T)	Re: The compass for curriculum reform?!	→ Can you write down your understanding of the compass for the curriculum development?
P093	2002/08/05 03:58 PM	Ms Leung (S)	Re: (2) The compass for curriculum reform?!	The function of a compass is to give us directions. The direction of curriculum development is to find the most effective method and strategy to teach students. I am trying to sort out a lot of related information, and so I'm not going to spend a lot of time discussing this. However, I do hope this will make you discuss more and eliminate the difficulties in searching. Sorry and thanks.
P094	2002/08/05 04:10 PM	Ms Leung (S)	Re: (3) The compass for curriculum reform?!	→ Sorry. Unable to open the attached ppt file. No wonder Tutor Lau didn't understand what I'm talking about. I'm trying to email it once to see if it works.
P095	2002/08/05 04:15 PM	Ms Leung (S)	Re: (4) The compass for curriculum reform?!	→ Sorry. Still unable to open the file. I'll email it once more.
P096	2002/08/05 04:19 PM	Ms Leung (S)	Re: (5) The compass for curriculum reform?!	→ Again, e-mail was fail. Is it true that the system cannot support ppt files?

In Excerpt 12, after Ms Leung found the cause of her failure response in P093 to Mr Lau's initiation issued in P092, she started to make efforts to self-repair. However, as she could not resolve the trouble, her self-initiation was issued three times within

about nine minutes (from 4:10pm to 4:19pm for P094, P095, P096), and eventually without success. Meanwhile, in Ms Leung's last posting (P096), she actually issued an initiation by raising a question asking for others' repair. However, there was no response received to that particular question from any of the participants in the discussion group. This is also a rare event in oral conversation. (This issue will be discussed later.) From Excerpt 12, we can see that over a period of about 20 minutes, Ms Leung made four postings in an effort to implement self-initiation and self-repair.

4.1.2.4 Self-repair in more than one turn

We have reviewed excerpts (e.g. Excerpt 1 and 2) for self-repair accomplished not in the same turn, but in the next trouble source turn in section 4.1.1.1, and also found self-repair accomplished not only in the next turn, but after several turns. For example, in Excerpt 2, Ms Tang in turn P2393 corrected her error in providing the wrong name for a website in P2392. However, she did not stop her self-repair after she accomplished it once; she subsequently accomplished another repair in P2394 to supplement her previous comment which was posted eight minutes after P2393. This shows that self-repair can be accomplished in more than one turn following another.

4.1.2.5 Repair-initiation with no response

From the data, cases are found of both self-initiation and other-initiation with no response from any participants in the discussion group. This phenomenon would rarely, if ever, occur in oral conversation.

For example, in Excerpt 12, Ms Leung in her last posting (P096) issued her self-initiation with the question 'Is it true that the system cannot support ppt files', but no response was received at all. Thus the repair outcome never arrived. Below is another example of self-initiation without a repair outcome.

Excerpt 13:

No.	Date/Time	Sender	Title		Content
P2273	2002/03/12 06:26 PM	Ms Leung (T)	Re: Facing education reform	(3)	Education reform is a mission. It is difficult to implement quickly. In fact, timing is very important. If we implement it slowly, we can't see the outcome; if we implement it too quickly, it is much more difficult to digest. What we need is to do it in balance, but it's far too difficult. → Am I right?

Ms Leung issued an initiation by asking if her response to the prior turn was correct (P2273), but no response to her posting was ever received.

The phenomenon of no response being received from any participant is not only found in the case of repair-initiation issued by trouble-source speakers themselves, but also in the case of repair-initiation issued by anyone other than the trouble-source speaker. Excerpts 14 and 15 are examples of other-initiation which received no repair outcome.

Excerpt 14:

No.	Date/Time	Sender	Title		Content
P057	2002/07/29 08:59 PM	Mr Wu (S)	Re: The first topic	(2)	The situation of my school is similar to yours. There are a lot of areas related to curriculum reform. The strategy of the school (authority) is to compromise the quality with quantity. However, what is the purpose of the curriculum reform? All areas kept evolving themselves, and there is no overall, coherent plan. The fundamental problem is that the reason for curriculum reform is curriculum reform. The teachers are already worn out and there is no time left to sit down and talk about the direction of the curriculum reform.

P065	2002/07/30 02:43 PM	Mr Tang (CC)	Re: (3) The first topic	→ What topics do you want the teachers to sit down and talk about together?

After the repair initiation (P065) issued by the other speaker, who was the Course Coordinator, no response at all was received from the trouble-source speaker, Mr Wu.

Excerpt 15:

No.	Date/time	Sender	Title		Content
P121	2002/08/09 11:01AM	Mr Tang (CC)	Re: Roles and responsibilities	(7)	In other words, should the work items be assigned by others (external experts or administrators), with the course coordinator just putting this into practice, or should the work items meet the needs of the school and the students? In the same way, do teachers need others' instruction for curriculum, or do teachers develop the curriculum according to their needs? In the same way as well, do students need teacher's guidance for doing everything, or do they bear the responsibility to gradually join an adult community?.....
P122	2002/08/09 10:29PM	Mr Lau (T)	Re: Roles and responsibilities	(8)	→ ...does Mr Tang mean that we should encourage students to join all activities in the community arranged by the school, including selection of learning content, learning how to learn and establishing the learning context or culture of learning?

In this excerpt, initiation (P122) was issued by Mr Lau, who was not the speaker of the trouble source, but repair was received by neither the speaker of the trouble source, the Course Coordinator, Mr Tang, nor any other participant in the group. In the other words, the trouble in understanding what Mr Tang meant still remained, and the repair sequence was therefore aborted.

Such cases of initiation without accomplishing repair seem not to be rare in Web-based discussion. Twelve self-initiations and 30 other-initiations receiving no repair, which makes the rate about 3.4% and 8.5% of the total of 351 repair cases in two public discussion groups were found from the data for this study (see Table 4.3 in section 4.4).

4.1.2.6 Duplicate posting – a form of self-repair

There were 34 cases of duplicate postings in the discussion boards for the two courses in this study. Among these 34 cases, two different types of duplicate postings were identified.

Type 1 — the duplicate postings are entirely the same, just sent by the speaker twice or more. This type of duplicate can be regarded as one repair pattern 'repeat' (which will be discussed in 4.3.10).

Type 2 — the duplicate postings are different versions with a small change, but without any additional explanation or information stressing why the change was made. This type of duplicate can be regarded as the repair pattern of rephrasing or reformatting (see section 4.3.7 for repair patterns).

In the case of Type 1, while some duplicate postings were caused by technical mistakes (e.g. clicking on the wrong icon or using an incorrect key), more cases arose from lack of familiarity with the operations of the system; that is, the 'speakers' were unsure about whether (a) they had sent out the postings successfully or (b) the Chinese characters were shown on the screen in a proper code/form. Thus, the 'speakers' made duplicate utterances, or took more than one turn to repeat. However, whether this was due to technical errors or being unfamiliar with the system, the speakers actually encountered some trouble with 'speaking'. Therefore, the duplicate postings served as a sort of self-repair initially. An example of this type of duplicate posting can be seen in the following excerpt:

Excerpt 16:

No.	Date/time	Sender	Title	Content
P2099	2002/03/03 08:04 PM	Mr Lau (T)	Re: (2) how are you?	Do not be courteous. We study together. What is your view on curriculum reform? Just put it forward and discuss it with all of us.
P2100	2002/03/03 08:05 PM	Mr Lau (T)	Re: (2) how are you?	Do not be courteous. We study together. What is your view on curriculum reform? Just put it forward and discuss it with all of us.

The two postings (P2099 and P2100), one minute apart, were identical. This means that after sending P2099, Mr Lau pressed the same button to send the same posting again to respond to the same prior turn (two 'Re's in front of the two postings) within one minute .

Excerpt 17 below helps to illustrate Type 2 duplicate postings.

Excerpt 17:

No.	Date/Time	Sender	Title	Content
P019	2002/07/23 01:17 PM	Ms Chan (S)	Re: (3) Curriculum development	((The screen shows all Chinese characters in an illegible code. However, after using the menu bar to make a code shift for the Chinese characters, the message could be shown on the screen clearly.)) … They ((teachers)) need to take the initiative to understand the curriculum, and realize its rationale in practice. Therefore the teachers' experience is the influential element in curriculum organization.

P023	2002/07/23 03:09 PM	Ms Chan (S)	Re: Curriculum development	(5)	Let me make a response. 'Please see attachment'. ((Below is the attachment. In it, a few words are changed compared with the previous P019)) … They ((teachers)) need to take the initiative to understand the curriculum, and realize its rationale in practice. Therefore the teachers' experience → is a component of the curriculum.

Obviously, in P023 above, Ms Chan said the same thing as in P019. However, she self-edited and made a few wording changes in her self-repair to solve the technical trouble she was having with sending her message. P019 and P023 can be called duplicate postings but with minimal change. Though there is no signal for repair within the posting, the duplicate action can be treated as a signal for repair, and the speaker actually did self-repair in the form of rephrasing. This is another special practice in Web-based conversation as a form of repeat for self-repair.

The excerpts in this section illustrate that while the basic repair structures in Web-based conversation are the same as in oral conversation, there are also some special features of repair organization. These result from various factors which differentiate Web-based conversation from ordinary oral conversation, particularly the multi-participant asynchronous written interaction. These issues are discussed further in a later part of this chapter.

4.2 Initiating techniques in Web-based discussion

Just as in oral conversation, when participants initiate repair in Web-based conversation, they may employ a variety of initiating techniques for self- or other-repair. Seven forms of initiating techniques used in Web-based discussion were identified from the data, as exemplified in the following sections. They are not presented separately for self or other, though it is indicated which are more commonly used by self or other in specific contexts.

4.2.1 Uncertainty

As in oral conversation, 'using a display of uncertainty to make a request to a knowing recipient …' (Goodwin, 1987, p. 128) is one form of initiator technique for repair in Web-based conversation, but usually used to open a discussion with all participants in the group. Here is an example from the data.

Excerpt 18:

No.	Date/Time	Sender	Title	Content
P191	2002/09/03 12:25AM	Ms Tang (S)	Subject assessment of HK	Some colleagues and principals mentioned at a seminar recently that the assessments for P1, P2, P4 and S6 will be cancelled from Subject Assessment of HK; only the assessments for P3 and P5 will be retained. → Has anyone in the group heard or seen the notice issued by Education Department?

Ms Tang (P191) started to provide some news on the topic being discussed, but then showed uncertainty about the facts and so asked the other participants in the discussion group for verification. In this case, uncertainty is apparently used as an initiator technique for self-initiation.

4.2.2 Partial repetition plus a question

In Web-based conversation, it is quite common for an other-initiation to consist of a partial repeat of the trouble-source turn together with a question sentence. The format is 'partial repeat + question sentence'. What this form of other-initiation does is to identify the problematic part of the prior turn by 'reproducing the proximate environment of the trouble source' (Drew, 1997, p. 71) through partial repeat, plus a question which 'stands in the position where the trouble-source word(s) once occurred' (Zhang, 1998, p. 101). Consider the following excerpt:

Excerpt 19:

No.	Date/Time	Sender	Title	Content
P511	2003/01/29 07:05 PM	Ms Chan (S)	Re: Peer observation	My school has conducted peer observation bi-weekly for three years as well. After students leave school in the afternoon, teachers observe each other class teaching …
P521	2003/01/30 09:09 AM	Mr Tang (CC)	Re: (2) Peer observation	→ After the students leave school, how can class observation be conducted by teachers?

Mr Tang in P521 repeated the trouble-source turn P511 partially ('After the students left school') which functions to locate where the problem was, then raised a question ('.. how can class observation be conducted by teachers?') to Ms Chan (P511) as an initiation to indicate what the problem is.

Another example of partial repetition with a question as an initiator technique for other-initiation has already been seen in Excerpt 6. In P2405, Mr Lau repeated the prior trouble source turn partially by indicating 'I don't understand what you're talking about "off duty after school"', then added the question 'Why shouldn't the teachers be off duty after school?' to initiate repair.

4.2.3 Disagreement/negation

Disagreement or negation as a form of technique for other-initiation was also identified from the data in the Web-based discussion.

Excerpt 20:

No.	Date/Time	Sender	Title	Content
P601	2003/02/03 2:31 AM	Mr Tang (CC)	Record for collaborative lesson preparation	Unless there were a lot of teachers transferring , teachers' memories (particularly as knowledge comes from reflection) are enough to use as a reference for teaching the same course in next year.
P694	2003/02/04 11:54 PM	Ms Wong (S)	Re: Record for collaborative lesson preparation	→ I do not agree that teachers can just act according to their memories. It seems there is no system. The question is who can say that s/he remembers clearly something which happened on X year X month X day, and records also can help some fresh colleagues, and can be revised at any time for effectiveness.

Ms Wong in P694 firstly expressed her disagreement with the viewpoint in the prior turn (P601) where Mr Tang said that 'teachers' memories … are enough to use as a reference for teaching the same course in next year'. Negation was used as an initiator technique by Ms Wong saying 'I do not agree that teachers can just act according to their memories' as a signal for repair; then she explained the reason for her disagreement in the same turn as other-repair.

Obviously, disagreement or negation as an initiation form must be used for other-initiation, as it must follow something others have said in a prior turn — it would seem very odd for someone to disagree with or negate things s/he has just said.

4.2.4 Suggestion

Suggestion may be employed as a form of initiator technique for other-initiation, as can be seen in Excerpt 20.

Excerpt 21:

No.	Date/Time	Sender	Title	Content
P701	2003/02/05 12:30 AM	Ms Lee (S)	Re: (4) method for raising effe→ctiveness of collaborative lesson preparation	In post-lesson reflection, the course coordinator may play the role of a moderator, to help colleagues to analyse some problems, solve some puzzles, and provide effective strategies or methods.....
P713	2003/02/05 10:30 AM	Mr Tang (CC)	Re: (5) method for raising effectiveness of collaborative lesson preparation	Is it probably more appropriate to say 'to solve some puzzles → with colleagues and to find some effective strategies or methods with them'?

Ms Lee used the word 'help (colleagues)' in her turn P701; and in the next turn in the sequence, Mr Tang suggested a different wording —'with (colleagues) … with them' — as other-initiation for repair. The suggestion used as an initiator technique here seems to be an attempt to avoid a potential threat to 'face' between two participants who had a similar amount of background knowledge of the topic. Mr Tang probably did not want to indicate directly that Ms Lee had used an inappropriate word; so he makes a suggestion strategically to initiate a repair request. (As a serving teacher, Ms Lee would recognize that the word 'help' implies that the Course Coordinator and colleagues were in unequal positions in the context being discussed.) Apparently, while the suggestion of another form of expression is used as an initiator technique for other-initiation, it has already accomplished repair through rewording.

4.2.5 Direct request

Using a direct request as an initiator technique for other initiation seems less polite and a potential threat to 'face'. However, the following examples show that this form of initiation technique occurs in the written form of language use in Web-based discussion.

Excerpt 22:

No.	Date/Time	Sender	Title	Content
P206	2002/09/09 08:18	Ms Cheung (S)	Re: (7) Role of textbook in curriculum reform	… at the time project learning and curriculum reform are still not completely developed, textbooks can be a bridge of communication between school and parents.
P207	2002/09/09 10:17PM	Mr Lau (T)	Re: (8) Role of textbook in curriculum reform	… I do not understand what you mean when you say textbooks are a bridge of communication between school and parents. → Could you explain it? Thanks.

In the next turn P207, Mr Lau directly asked the speaker, Ms Cheung, to repair her utterance, as he had a trouble in understanding what she meant by 'textbooks can be a bridge of communication between school and parents' in her turn P206. The technique of direct request used here takes a different approach from the technique of suggestion for other-initiation (as discussed in the previous section), as it raises a potential threat to 'face'. However, this did not actually arise here, because the other-initiation for repair issued by Mr Lau can be viewed as 'friendly help or expeditious in the ongoing interaction' (Norrick, 1991, p. 80). Therefore, using a direct request as an initiating technique is not rare in Web-based conversation due to its function of indicating the location for repair directly.

Excerpt 23:

No.	Date/Time	Sender	Title	Content
P233	2002/09/21 12:37PM	Ms Tang (S)	Re: (5) How school teachers can know about project learning	… attachments are some websites related to project learning, which can be used as references for professional development for teachers.
P234	2002/09/21 12:51	Mr Lau (T)	Re: (6) How school teachers can know about project learning	Sorry, attachments cannot be found. → Send them again, please.

Mr Lau in the next turn (P234) made a direct request to the speaker of the trouble source, Ms Tang, asking her to 'send them again, please'. Obviously, the goal of a direct request initiated by others, in this case Mr Lau, is to expedite the ongoing interaction, and impoliteness doesn't arise as a factor in this context.

The above are examples of direct request used as a technique of other-initiation. However, this technique can also be used as a self-initiator. For example, in Excerpt 5, Ms Lau requested other participants directly to provide a 'supplementary viewpoint' to her points posted in P2496. This request was seeking others' help in filling in a gap in background knowledge and also furthering understanding and the interaction.

4.2.6 Understanding check

Using an understanding check to initiate repair is an other-initiation device which usually takes the form of *Y'mean* plus a possible understanding of the prior turn in English (Schegloff et al., 1977, p. 368). This form is found to be applicable also to Chinese in the Web-based conversation, as is seen in Excerpt 15. In P122, Mr Lau was not sure if his understanding of Mr Tang's point in the prior turn was correct, so he used the understanding check form 'you mean that... (Mr Lau's understanding of Mr Tang's turn)' to issue initiation for Mr Tang's repair.

The other form of understanding check found in the data is *My understanding is* ...plus a question *'am I right?'*, as exemplified in Excerpt 24 below.

Excerpt 24:

No.	Date/time	Sender	Title	Content
P168	2002/08/25 10:12	Ms Chan (S)	Asking Ms Leung—prerequisite for project learning	I learnt that your school conducts project learning starting at P1, and you had another opinion on it. → My understanding of your opinion is that it should be started at P4. Am I right?

Ms Chan in P168 stated her understanding first: '*My understanding of your opinion is that it should be started at P4*'— and then added '*Am I right*' as an initiator for repair.

As the above examples show, an understanding check can only be used by others as an initiator, not by the trouble source speaker self. A prior turn is a prerequisite for an understanding check which can only be issued in a turn after the trouble source turn.

4.2.7 Apology or regret plus indication of prior trouble

It was found that, in Web-based conversation, a word (such as 'pardon' or 'sorry') cannot be used singly as a form of 'open class' to initiate repair, but a form of apology or regret plus an indication of prior trouble as a whole can be used as an initiator for initiating a repair.

The form of apology or regret usually uses the word 'sorry' (dui bu qi) as an initiator for either self- or other-initiation. Examples for self-initiation using the form of apology or regret can be found in Excerpt 12. Ms Leung used 'sorry' in both P094 and P095 to initiate the trouble ('unable to open the file') which was followed by further action ('I'll email it once more') to repair the trouble in her previous turn ('see attachment' in P090). The word 'sorry' was used here as an initiator for self-initiation. Another example of using apology for self-initiation is in P2393 (Excerpt 2) where Ms Tang first said 'I'm sorry' to issue an initiation, then corrected the wrong information provided in her prior turn by giving the right name of the website — "*Renjiaowang*" (in P2393) instead of "*Minjiaowang*" (in P2392). One more example of using apology as a form of self-initiation is given below:

Excerpt 25:

No.	Date/Time	Sender	Title		Content
P2656	2002/05/29 01:41 PM	Mr Chan (T)	Re: What are five important learning experiences?	(2)	The supplement can be found in ET300C Readings.
P2671	2002/05/31 09:49 PM	Mr Chan (T)	Re: What are five important learning experiences?	(3)	→ Regret for saying it without providing the page number. It should be page 83.

Mr Chan in P2671 used 'regret' first as a signal to show an intention of issuing initiation, then indicated the problem in his prior turn P2656 in which he said 'the supplement can be found in ET300C Readings', but failed to provide the page number for it.

An example of using apology or regret as an initiator for other-initiation can be seen in the earlier Excerpt 23. In P234, Mr Lau first used the word 'sorry' to signal the trouble in the prior turn (P233) which had said there were some attachments, but none were attached.

Obviously, apology or regret plus an indication of prior trouble is another initiator technique in Web-based conversation, which can be used either for self- or other-initiation.

In summary, the seven forms of initiator techniques identified from the data in the Web-based conversation for this study can be outlined as follows

Table 4.1 Forms of initiator techniques in Web-based conversation

Form of initiation technique	**Self-initiation**	**Other-initiation**
Uncertainty	√	
Partial repetition plus a question		√
Disagreement/negation		√
Suggestion		√
Direct request	√	√
Understanding check		√
Apology or regret plus indication of prior trouble	√	√

Among the seven forms of initiation techniques, two can be used for both self- and other-initiation, namely direct request and apology or regret plus indication of prior trouble; four can be used for other-initiation only, i.e. partial repetition plus a question, disagreement/negation, suggestion and understanding check; and one, uncertainty, can be used as a form for self-initiation only.

Though the above categories of initiation techniques are not all classified at the same level or by using the same criteria — for example, the forms of 'Partial repetition plus a question' and 'Apology or regret plus indication of prior trouble' are classified more on the basis of sentence form, while the other forms are classified more by functional basis for initiation — they are still distinguishable as typical forms of initiation technique used in Web-based conversation.

4.3 Repair patterns in Web-based conversation

As will be seen in this section, the total of 351 repair cases found in the data are classified into ten main patterns which include patterns for self- and other-repair used in Web-based conversation. The following sections show examples of the classification of each pattern of repair and an indication of their use for self- or other-repair.

4.3.1 Pattern one: correction

An example of self-correction can be found in Excerpt 2 in the early part of this chapter. In P2393, Ms Tang corrected the incorrect name and address of a website she had given in P2392. This is a typical self-correction. It should be noted that this is very different from ordinary oral conversation (e.g. the research reported by Chui, 1996), in that there is no same turn self-correction in the data; if there is self-correction, it always occurs in some following turns.

Excerpt 26: Self-correction

No.	Date/time	Sender	Title	Content
P380	2003/01/08 05:03 PM	Mr Lau (T)	Unit 6 - t & F tests	Dear every one, The theme of Unit 6 is action research. It involves quantitative assessment. You probably have touched on the t & F tests, and have some problems with them. There is a brief introduction in Readings 6.5 & 6.6. They are easy to read and understand, you may use them as reference. There is no hindrance *(bu ai)* for you to read them.
P381	2003/01/08 5:19 PM	Mr Lau (T)	Re: Unit 6 - t & F test	Sorry, it was my miswriting. → The last sentence should be 'there is no harm (*bu fang*) for you to read them.

Mr Lau used the wrong Chinese '*bu ai*' (which means 'no hindrance', and is not a commonly used word) in his turn P380. When he realized his mistake, he issued initiation using the form of regret, and immediately accomplished self-correction by replacing it by the right word '*bu fang*' (meaning 'no harm', a word in common use) in the next turn P381 after the trouble source turn.

An example of other-correction has already been shown in Excerpt 10 in the discussion of curriculum development. There, in P038, Ms Chan corrected the term '3C' which occurred in three previous turns by replacing it with '4C'. This is a typical example of a speaker other than trouble-source speaker accomplishing correction, i.e. other-correction.

4.3.2 Pattern two: complement

In oral conversation, speech interruption may occur, and can even occur 'within a word' which is then completed in the repair outcome (Chui, 1996, p. 347). Such speech interruption never occurs in Web-based conversation, as before speakers send their postings, no one can enter the screen the speakers are typing on. However, although no one can interrupt, speakers in Web-based conversation need to complement their speech sometimes, and it can also be used for other-repair.

For the pattern of complement for self-repair, there are some cases where the self-complement occurs in the same turn, and in others it occurs in the next turn. The following are examples.

Excerpt 27: Self-repair complement in the same turn

No.	Date/time	Sender	Title	Content
P163	2002/08/23 08:26pm	Mr Wan (T)	Re: (4) Pre-requisites in project learning	Maybe we have to change the existing system to solve the "reporting" problem. The results can be separated into two parts. → To complement, the progressive assessment can provide feedback to both the teachers and the students in the learning process.

In P163, following his explanation of 'the results can be separated into two parts', Mr Wan accomplished a self-repair complement to his statement in the same turn by using the words 'to complement'.

Excerpt 28: Self-repair complement in the next turn

No.	Date/time	Sender	Title	Content
P173	2002/08/28 09:03pm	Ms Leung (S)	Re: (5) Asking a question to Ms Leung------ Pre-requisites in project learning	… The purpose of project learning is to enable students to learn a topic in depth. There are more opportunities to spontaneously learn…
P174	2002/08/28 09:26pm	Ms Leung (S)	Re: (6) Asking a question to Ms Leung------ Pre-requisites in project learning	→ Supplement: Our school is located in a large estate. According to the characteristics of the students, our school provides…. I have just found a useful website you may look at: http://resources.ed.gov.hk/project_work/main.htm

In P174, Ms Leung provided some supplementary information about the school she taught in, which she intended to share her experience of in P173. To get others' attention, Ms Leung marked her posting with the word 'Supplement' to indicate her effort at self-repair. This self-complement was accomplished in the next turn, not the same turn as the trouble source.

Excerpt 29: Other complement

No.	Date/time	Sender	Title	Content
P284	2002/10/13 06:37PM	Mr Leung (S)	Advantage of cooperative lesson planning	What are advantages of collaborative class preparation? A teacher who teaches Math says that it can earn more interest from the principal, and …
P287	2002/10/14 09:49AM	Mr Wan (T)	Re: (2) Advantage of cooperative lesson planning	→ Two supplementary points: The facilitator of collaborative class preparation can be the headmaster, Subject Head, PSMCD. It is not limited to the people who are actually teaching that particular subject to be the facilitator…

In P287, Mr Wan accomplished a complement for P284, which was about the advantages of cooperative lesson planning posted by Mr Leung. Mr Wan said 'Two

supplementary points' at the beginning of his posting as an indication of his complement. This is an example of other-complement in Web-based conversation.

4.3.3 Pattern three: clarification

Clarification is used to make clearer something a speaker has said but which was unclear or ambiguous in a prior turn. It can arise from either self-initiation or other-initiation, and also it can be done by either the speaker of the trouble source or another speaker. Here is an example (part of which has already been seen in Excerpt 10).

Excerpt 30: Self-initiation self-clarification

No.	Date/time	Sender	Title		Content
P031	2002/07/23 10:16	Ms Ng (S)	Re: Curriculum Development		I agree that teachers are the core component of the curriculum. Perhaps there is no definite curriculum standard when we're changing the curriculum. If teachers can add the 3C elements to the class....
P039	2002/07/25 01:53AM	Mr Lau (T)	Re: Curriculum Development	(7)	→ ... I want to know whether or not the conclusion 'there is no definite standard for curriculum' is correct.
P040	2002/07/25 02:02	Mr Lau (T)	Re: Curriculum Development	(8)	→ I forgot to say that this is the conclusion posted on 23 July.

In P039, Mr Lau questioned the correction of the conclusion Ms Ng made in P031 ('there is no definite curriculum standard'). Since Mr Lau's question referred to a distant prior turn on the same discussion topic, probably no one was clear about what he was talking about. Mr Lau immediately recognized the trouble he had caused in P039, and then accomplished self-clarification in the next turn (P040) by providing the original source of the conclusion he questioned. Obviously, this is an example of self-initiation self-clarification, and the clarification was done in the next turn.

Excerpt 31: Other-initiation other-clarification

No.	Date/time	Sender	Title	Content
P2507	2002/05/08 09:08 AM	Mr Tang (CC)	Re: (7) Participatory learning	In fact, you don't need a worksheet to learn from a museum visit…
P2519	2002/05/10 01:38 PM	Mr Cong (S)	Re: (9) Participatory learning	→ Can "learning by observation" be categorized as "participatory learning"?
P2520	2002/05/10 01:51 PM	Mr Cheung (S)	Re: (10) Participatory learning	→ I think "learning by observation" can be categorized as "participatory learning". Students can learn from a textbook; however, when they are in the actual environment, their knowledge can be internalized. …

The topic under discussion was 'participatory learning'. After the Course Coordinator had given some practical examples of participatory learning in his turn P2507, Mr Cong, in P2519, asked for clarification about whether 'learning by observation' can be categorized as 'participatory learning'. However, no clarification was provided by the Course Coordinator; instead it was immediately carried out by Mr Cheung, who was a speaker other than the trouble-source speaker (CC) in his turn P2520.

4.3.4 Pattern four: explanation

Explanation as a repair pattern involves providing illustrations of, or further details about, something a speaker has said in the prior turn. This pattern can be employed in both self- and other-repair, as seen in the examples below:

Excerpt 32: Self-initiation self-explanation

No.	Date/Time	Sender	Title	Content
P2733	2002/6/6 07:44 PM	Ms Ip (S)	Re: (2) Using the other form instead of writing from memory	((all Chinese characters are shown in illegible code))
P2734	2002/6/6 07:50 PM	Ms Ip (S)	Re: (2) Using the other form instead of writing from memory	→ I do not know why all the characters have changed their forms. To see the above text clearly, please press the button 'view', then press 'code', then press 'auto selection'. Thanks!

In above example, after Ms Ip posted her text on the discussion board, she found that all the Chinese characters typed in P2733 showed as illegible symbols on the screen. She, therefore, issued self-initiation by saying 'I do not know why all characters have changed their forms', which can be categorized as a form of uncertainty for initiation, and then she explained the right way to read her text from the computer screen in the next turn P2734.

Excerpt 33: Other-initiation self-explanation

No.	Date/Time	Sender	Title	Content
P233	2002/09/21 12:37PM	Ms Tang (S)	Re: (5) How school teachers can know about project learning	.....Attached are some websites related to project learning, which can used as references for professional development for teachers.
P234	2002/09/21 12:51	Mr Lau (T)	Re: (6) How school teachers can know about project learning	→ Sorry, attachments cannot be found. Send them again, please.
P237	2002/09/21 12:51	Ms Tang (S)	Re: (8) How school teachers can know about project learning	Mr Lau, → They ((web sites)) are attached at the button of the first student's posting. However, I will attach them once again. ...

Mr Lau issued a direct request in P234 to Ms Tang for repair of her prior turn P233, as he could not find the websites she said she had attached. Ms Tang offered self-explanation in P237 saying that the location of the attachments was at the bottom of first student's posting, but that she would send them as attachments once more. It is an example of self-explanation arising from other-initiation.

Excerpt 34: Other-initiation self-explanation

No.	Date/time	Sender	Title	Content
P044	2002/07/25 10:17PM	Mr Wan (T)	Re: (11) Curriculum development	How can teachers manage these 4Cs? Especially for creativity, many teachers don't have a clue. This is something about thinking, and most teachers don't have this kind of "creativity" training in their own learning experience. How can they teach students to be creative?
P045	2002/07/27 12:07AM	Mr Lau (T)	Re: (12) Curriculum development	.....Creativity does not need to be taught. Any student or teacher has creativity, but it's the environment that matters. The teachers should arrange an environment in which the students can establish self- confidence and can be accepted... → Do you agree?

P047	2002/07/27 07:00AM	Mr Wan (T)	Re: Curriculum development (13)	I totally agree with your opinion, especially that 'the teachers should arrange an environment in which the students can establish self-confidence and can be accepted" → … Perhaps, 'teaching' may not produce any creativity. The term 'foster' or 'cultivate' may be more appropriate for bringing out creativity…The main point of my questions is: There must be some techniques to help teachers…

Mr Wan felt that Mr Lau's (P045) response to his question 'How can they teach students to be creative' (P044) showed misunderstanding of his meaning, particularly in relation to the term 'teach'. He, therefore, gave a self-explanation for the word 'teach' in his turn P047, and emphasized that 'the point of my question is: there must be some techniques to help teachers'. This is another example for other-initiation self-explanation.

Excerpt 35 (part of which has been seen in Excerpt 19) gives an example of other-initiation other-explanation.

Excerpt 35: Other-initiation other-explanation

No.	Date/Time	Sender	Title	Content
P511	2003/01/29 07:05 PM	Ms Chan (S)	Re: Peer observation	My school has conducted peer observation bi-weekly for three years as well. After students leave school in the afternoon, teachers observe each other class teaching ……
P521	2003/01/30 09:09 AM	Mr Tang (CC)	Re:…… (2) Peer observation	→ After students leave school, how can class observation be conducted by teachers?
P528	2003/01/30 11:29 AM	Ms Ho (S)	Re: Peer observation (3)	→ We always capture different kinds of classroom activities by video and observe, discuss, laugh and enjoy together. Our principal also accepts video capture as a formal appraisal.

In this excerpt, Mr Tang in P521 raised an issue about 'after students leave school in the afternoon, teachers observe each other class teaching' which Ms Chan said in her turn P511. Mr Tang asked the question 'after students leave school, how can observation be conducted by teachers?' However, the necessary explanation was not provided by the speaker of the trouble source (Ms Chan) but by Ms Ho. In her turn P528, Ms Ho explained the method for peer observation in this situation: observing classroom teaching video.

Excerpt 36: Other-initiation other-explanation

No.	Date/time	Sender	Title	Content
P2538	2002/5/12 10:46 PM	Mr Rong (T)	A difficult job	I heard that some schools give up the funding for hiring a PSMCD as no one is courageous enough to take this difficult job. This is strange: Some people cannot find a job, some jobs are left vacant, what's your opinion…
P2540	2002/5/12 10:57 PM	Mr Li (S)	Re: A difficult job	→ That is not strange indeed; this difficult job requires all teachers in the school to do more…

Mr Rong in his turn P2538 raised an issue related to the PSMCD position and thought it was a strange that, while some people could not find a job, some posts were left vacant. The other participant in the discussion board, Mr Li, in his turn P2540, used disagreement by saying 'that is not strange indeed' as an initiation, and then explained the reason for its not being 'strange' in the same turn. So this is also an example of other-initiation other-explanation.

4.3.5 Pattern five: different expression

Most different expressions in Web-based conversation use the form 'in other words' or something similar. In the CA tradition, what is referred to here as 'different expression' can also be seen as one kind of 'word searching' or editing; and in oral conversation, 'word searching' is employed only for self-repair. It was found from the data for this study that this kind of 'word searching', i.e. 'different expression' can be used for both self- and other-repair in Web-based conversation.

Excerpt 37: Self different expression

No.	Date/time	Sender	Title	Content
P149	2002/08/16 08:23 PM	Mr Wan (T)	Re: (2) How to start	…If we cannot eat a whole cow at one time, then we should cut it into pieces and have them frozen. It can be cooked later. → In other words, we can eat some pieces first…

Excerpt 38: Self different expression

No.	Date/time	Sender	Title	Content
P781	2003/02/07 02:06 PM	Mr Tang (CC)	Re: (9) The job of PSMCD	… Maybe the most important aspect of PSMCD is not the number of roles and their respective performances. It is how to let the students in the school learn in a better way. → In simpler terms, there can be a lot of changing roles…

The two excerpts above obviously used a form of 'word search' to express the writers' thinking in another way. 'In other words' (P149) and 'in simpler terms' (P781) are different expressions used in the same turn.

Excerpt 39: Other different expression

No.	Date/time	Sender	Title	Content
P222	2002/09/15 06:01PM	Mr Ng (S)	Re: (2) How to let the teachers understand project learning	..... I think training of teachers is necessary to develop project learning. At the same time, we have to be brave to try to modify the mode and the method of teaching gradually.
P223	2002/09/16 08:55PM	Mr Lau (T)	Re: (3) How to let the teachers understand project learning	→ In other words, you would agree that the present stage is similar to "a blind person describing an elephant" … This is an adventure, and it sets out for the latter stage of the work.

After Mr Ng expressed his opinion about trying to do project learning in his turn P222, Mr Lau actually concluded Mr Ng's speaking but used the repair pattern of different expression to re-state the same idea in P223. This different expression, which was lengthier than in the examples above, was editing work; and in this case was not conducted by self. Excerpt 39 is an example of different expression accomplished by a speaker other than the speaker of the trouble source.

4.3.6 Pattern six: confirmation

Confirmation can be used as a repair pattern in Web-based conversation for both self- and other-repair, as seen in the excerpts below.

Excerpt 40: self-confirmation

No.	Date/time	Sender	Title	Content
P532	2003/01/30 12:26 PM	Ms Ho (S)	Integrative reorganization of curriculum	….This year, the programme of integrative reorganization of curriculum has been extended to P2 and P3. Colleagues gave a lot of suggestions on possible forms of the integrative reorganization. Eventually, we decided to carry it out in the mode of parallel subjects, and the time for promoting it has been changed to the first three weeks when the next semester begins….

P533	2003/01/30 12:34 PM	Ms Leung (S)	Re: Integrative reorganization of curriculum		→ Does the mode of parallel subjects you mentioned retain the regular schedule? In the other words, do students still go to class following the schedule, but each subject teaches the content relevant to the same theme?
535	2003/01/30 01:07 PM	Ms Ho (S)	Re: Integrative reorganization of curriculum	(2)	→ Yes, it is just the mode we use.

In this excerpt, Ms Ho in P532 provided an idea for carrying out an integrated reorganization of curriculum in the 'mode of parallel subjects'. Ms Leung in the next turn (P533) issued an initiation by asking a question: 'Does the mode of parallel subjects you mentioned retain the regular schedule'. The trouble-source speaker, Ms Ho, then followed with a confirmation as repair by saying 'Yes, it is just the mode we use' in her turn (P535). Ms Ho's confirmation accomplished successful self-repair.

Excerpt 41: other confirmation

No.	Date/time	Sender	Title		Content
P363	2003/01/02 9:22 PM	Ms Lam	Re: Curriculum action research	(2)	Ms Chan, the original purpose for educational action research is for reflection on teaching. To me, action research is simply looking back critically on my own teaching frequently, to obtain principles from self reflection for the action in the next.... Am I right?
P366	2003/01/03 6:14 PM	Ms Cheung	Re: Curriculum action research	(3)	Ms Lam, I agree with your viewpoint, that action research is a good way to let teacher reflect their teaching. ...In my personal experience, actually, collaborative lesson preparation and peer observation are just one type of action research. → I do not know whether my understanding is correct or not.
P367	2003/01/03 10:38 PM	Ms Lai	Re: Curriculum action research	(4)	→ Ms Cheung, your understanding is right. Both collaborative lesson preparation and peer observation are a type of action research.

In the above excerpt, the topic under discussion was action research, and participants focused on what action research actually means. When Ms Lam in P363 responded to Ms Chan's posting, she also expressed her own opinion on 'action research'. Then Ms Cheung in P366 issued self-initiation by checking her further understanding of Ms Lam's viewpoint. However, Ms Lam (the trouble-source speaker) did not respond to Ms Cheung; instead, Ms Lai accomplished a confirmation as repair for Ms Cheung's initiation. Ms Lai in her turn P367 said that 'your (Ms Cheung's) understanding is right', which is an example of other-repair other-initiation.

4.3.7 Pattern seven: rephrasing

It has been found that, as in oral conversation, rephrasing as a pattern of repair used in Web-based conversation can be for both self- and other-repair. The following examples show that rephrasing may be embodied in two different forms.

One rephrasing form is word changes. For example, in Excerpt 17 (in the early section of this chapter), P019 and P023 were almost duplicate postings, except that the last sentence was changed from 'the teachers' experience is the influential element in curriculum organization' to 'the teachers' experience is a component of the curriculum'. Ms Chan changed a few words while she was accomplishing self-repair to solve the technical problem she had with posting her message the first time (P019). In P023, she actually accomplished rephrasing work first and then sent the text again but as an attachment to the discussion board. Here is another example.

Excerpt 42: rephrasing

No.	Date/Time	Sender	Title	Content
P784	2003/02/07 06:18 PM	Ms Wong (S)	Curriculum reform and social factors	Thanks for Ms Choi's view. It makes me have some confidence in promoting Putonghua teaching.
P785	2003/02/07 06:21 PM	Ms Wong (S)	Curriculum reform and social factors	→ Thanks for Ms Choi's experience sharing. It greatly increases my confidence in promoting Putonghua teaching.

Ms Wong rephrased her text from 'Choi's view' in P784 to 'Choi's experience sharing' in P785, and from 'have some confidence' in P784 to 'greatly increases my confidence' in P785 to make her expression more accurate.

Excerpt 21 (section 4.2.4) can be the other example of rephrasing using the form of word changes, not for self-repair, but for other-repair. While Mr Tang in his turn P713 issued an initiation for prior turn which inappropriately used the word 'help', he was also accomplishing rephrasing work: changing 'to help colleagues to analyze some problems, solve some puzzles' to 'to solve some puzzles with colleagues'.

The other form of rephrasing is word canceling or adding. For instance, in Excerpt 43 below, rephrasing involved removing some words.

Excerpt 43: rephrasing

No.	Date/Time	Sender	Title		Content
P328	2002/12/05 08:39AM	Mrs Lo (S)	Re: Reading 4.2	(6)	The goal of establishing the post of PSMCD is to show determination for curriculum reform, and serves to inform the teachers who still have a wait-and-see attitude to accept the curriculum reform. I agree with it very much. However, assent and support from principals are the main factor in whether or not the curriculum reform can be successful. Letting principals understand more clearly the task of PSMCD needs more effort from the Education Department. Otherwise, it will fall short of success for lack of a final effort. Curriculum reform is my
P329	2002/12/05 08:41	Mrs Lo (S)	Re: Reading 4.2	(7)	The goal of establishing the post of PSMCD is to show determination for curriculum reform, and serves to inform the teachers who still have a wait-and-see attitude to accept the curriculum reform. I agree with it very much. However, assent and support from principals are the main factor in whether or not the curriculum reform can be successful. Letting principals understand more clearly the task of PSMCD needs more effort from the Education Department.

					Otherwise, it will fall short of success for lack of a final effort. →
330	2002/12/05 08:51	Mrs Lo (S)	Re: Reading 4.2	(8)	→ <u>Amendment:</u> The goal of establishing the post of PSMCD is to show determination for curriculum reform, and serves to inform the teachers who still have a wait-and-see attitude to accept the curriculum reform. I agree with it very much. However, assent and support from principals are the main factor in whether or not the curriculum reform can be successful. Letting principals understand more clearly the task of PSMCD needs more effort from the Education Department. Otherwise, it will fall short of success for lack of a final effort.

In above excerpt, Mrs Lo accomplished self-repair by rephrasing her posting twice: after cancelling her last incomplete sentence 'Curriculum reform is my' at the bottom of prior turn P328, Mrs Lo sent her posting again in P329 without any indication of the difference between the two postings, P328 and P329; and subsequently, she had one more rephrasing work by adding word 'Amendment' at the beginning of the posting to indicate her effort and sent the posting again (P330). Obviously, P329 and P330 are two rephrased versions, the first omitting some words, the second adding a word. Both rephrasing works were done by the same trouble source, Mrs Lo herself.

4.3.8 Pattern eight: combination

Combination is a repair pattern commonly used in Web-based conversation, for successful repair accomplishment for more than one trouble. It can be used as a pattern either for self-repair or for other-repair.

For self-repair, combination is used often in the turn after the trouble source turn, and speakers accomplish self-repair in a combined way. Two excerpts used before in this chapter demonstrate the pattern of combination used for self-initiation self-repair and other-initiation self-repair respectively. The first one is Excerpt 42. When Ms Wong accomplished her repair, she actually dealt with two troubles in one turn by rephrasing work — namely changing 'Choi's view' in P784 to 'Choi's experience sharing' in P785, and 'have some confidence' in P784 to 'greatly increases my confidence'. This is an example of self-repair in combination. The second is Excerpt 4. In that repair sequence, Ms Fung in P307 stated clearly that she was responding to the questions raised by two participants (Mr Lau and Ms Leung) in different earlier turns (P297 and P303). The first was about an acceptable mode for collaborative lesson preparation (P297) and the second involved suggestions for making a suitable schedule for teacher meetings (P303), and both were actually an initiation for repair of Ms Fung's wording in P296. Thus in P307, Ms Fung finally accomplished repair by using a combination pattern. This is an example of other-initiatied self-repair using the pattern of combination.

For other-repair, Excerpt 10 can be re-used as an illustration of combination. In this excerpt (P038), while Ms Chan was providing the original source of 3C, she also accomplished other correction as she pointed out that it should be '4C', not '3C'. This is a combined repair for two troubles which occurred in prior turns in the sequence. As Ms Chan was not the trouble-source speaker, the repair was accomplished by another speaker using a pattern of combination.

4.3.9 Pattern nine: reformatting

Cases of reformatting written text as repair are also found in the data of Web-based conversation. In Web-based conversation, both the use of the written form of language and the computer screen determine the specific formats for displaying what participants are saying, so format becomes one kind of repairable source, and is usually done by the trouble-source speaker him/herself.

Excerpt 44: reformatting

No.	Date/Time	Sender	Title	Content
P1425	2003/01/03 02:01PM	Ms Li (S)		Topic: Comments on 'Abstract of teachers' comments on Guide for Primary School According to the study report, the circumstances in the 22nd and 23rd items, the greatest possibility for teachers is that …..
P1426	2003/01/03 02:57PM	Ms Li (S)	→ Comments on 'Abstract of teachers' comments on Guide for Primary School Curriculum'	According to the study report, the circumstances in 22nd and 23rd item, the greatest possibility for teachers is that …..

Excerpt 44 above shows that Ms Li in P1425 wrote a title for her posting, 'Topic: Comments on 'Abstract of teachers' comments on Guide for Primary School' together with her whole text in the Content column which was preformatted by the system. Then in the next turn (P1426), she accomplished self-repair by reformatting the text: moving the topic title to the Title column, with the same content bring retained in the Content column. This reformatting made Ms Li's posting clear and correct, and helped other participants to identify easily the topic Ms Li was discussing.

4.3.10 Pattern ten: repeat (duplicate)

Duplicate postings as a special self-repair practice have already been dealt with in an early part of this chapter. This section reviews them from the viewpoint of patterns for repair. Duplicate postings can be regarded as the pattern of repeat.

As has been discussed in section 4.1.2.6, in some cases, duplicate postings can be classified into patterns of rephrasing or reformatting. However, in some cases, duplicate postings were produced with the primary purpose of repeating (e.g. Excerpt 16 where they are exactly the same). Repeating in Web-based conversation is usually caused by the fact that the speaker is unsure whether his/her posting has been sent successfully, or by a technical problem (e.g. the posting not being displayed on the sender's computer screen, which leads him/her to make the same movement twice or more on the keyboard). It is a kind of self-repair as, for whatever reason, the trouble-source speaker intended to remove a problem in sending the posting. In Excerpt 16, it can be seen that Mr Lau sent his posting again just one minute after he had sent it for the first time, and the same two 'Re's in front of the discussion title shows that his action in sending his posting second time (P2100) still followed the same prior turn as in P2099. This implies that Mr Lau felt he had failed to send his posting (there is a time delay for displaying text, so the computer screen may not have shown the text Mr Lau sent within one minute), so he thought that he needed to send it again. Thus, P2100 was a repair outcome. However, a duplicate posting may not be a repair outcome, but may itself become a trouble source if it caused by a technical problem, e.g. pressing a wrong key. (Though this kind of case should be noted, it is not dealt with in detail, as this study does not intend to explore the issue of trouble types.)

In summary, the repair patterns in Web-based conversation found from the data in this study can be outlined as in Table 4.2 below.

Table 4.2 Patterns for repair in Web-based conversation

Pattern	Self- repair	Other repair
Correction	√	√
Complement	√	√
Clarification	√	√
Explanation	√	√
Different expression	√	√
Confirmation	√	√
Rephrase	√	√
Combination	√	√
Reformat	√	
Repeat (duplicate)	√	

Table 4.2 shows that most of the ten patterns can be used for both self- and other repair, while two of them —reformatting and repeat — can be used for self-repair only. In other words, in Web-based conversation, either the trouble-source speaker him/herself or another speaker can accomplish repair by using any pattern of correction, complement, clarification, different expression, confirmation, rephrase and combination. Additionally, the trouble-source speaker can accomplish other kinds of repair — reformat and repeat — but speakers other than the trouble source do not do so.

4.4 Preference organization of repair in Web-based discussion.

In exploring the preference organization in Web-based conversation, this study employs single-case analysis as well as quantitative analysis. All repair cases identified from the data are classified into different categories, and the frequencies of each category for relevant cases occurring are counted. The results are shown in Table 4.3 below.

Table 4.3 Frequency distribution of repair patterns in two public discussion groups

Category		Self-repair					Other-repair					Total
		Self-initiated self-repair	Self-initiated no repair	Other-initiated self-repair	Self-initiated failure repair	***Sub-total***	Self-initiated other-repair	Other-initiated other-repair	Other-initiated no repair	Other-initiated failure repair	***Sub-total***	
Correction	N	28	0	3	0	31	9	18	1	3	31	62
	%	7.9 %	0%	0.9%	0%	8.8%	2.6%	5.1%	0.3%	0.9%	8.8%	17.7%
Complement	N	14	4	4	1	23	14	58	0	0	72	95
	%	4.%	1.1%	1.1%	0.3%	6.6%	4%	16.5%	0%	0%	20.5%	27.1%
Clarification	N	6	8	15	0	29	13	19	24	6	62	91
	%	1.7%	2.3%	4.3%	0%	8.3%	3.7%	5.4%	6.8%	1.7%	17.7%	25.9%
Explanation	N	2	0	3	0	5	21	12	0	4	37	42
	%	0.6%	0%	0.9%	0%	1.4%	6.0%	3.4%	0%	1.1%	10.5%	12.0%
Different expression	N	12	0	0	0	12	0	4	0	0	4	16
	%	3.4%	0%	0%	0%	3.4%	0%	1.1%	0%	0%	1.1%	4.6%
Confirmation	N	0	0	3	2	5	0	4	5	1	10	15
	%	0%	0%	0.9%	0.6%	1.4%	0%	1.1%	1.4%	0.3%	2.8%	4.3%
Rephrase	N	5	0	0	0	5	0	1	0	0	0	6
	%	1.4%	0%	0%	0%	1.4%	0%	0.3%	0%	0%	0%	1.7%
Combination	N	3	0	0	0	3	1	5	0	0	6	9
	%	0.9%	0%	0%	0%	0.9%	0.3%	1.4%	0%	0%	1.7%	2.6%
Reformat	N	3	0	0	0	3	0	0	0	0	0	3
	%	0.9%	0%	0%	0%	0.9%	0%	0%	0%	0%	0%	0.9%
Repeat	N	12	0	0	0	12	0	0	0	0	0	12
	%	3.4%	0%	0%	0%	3.4%	0%	0%	0%	0%	0%	3.4%
Amount	N	85	12	28	3	**128**	58	121	30	14	**223**	**351**
	%	24.2%	3.4%	8.0%	0.9%	**36.5%**	16.5%	34.5%	8.5%	4.0%	**63.5%**	100%

A total of 351 repair cases were identified from the 1,525 postings in the public discussion groups in the two courses (802 in ET800C and 723 in ET300C). The frequency distribution of the repair patterns showed that, of the 351 repair cases, there were:

- 62 corrections, 31 accomplished by self and 31 by other (8.8% in each case);
- 95 complements, 23 (6.6%) accomplished by self and 72 (20.5%) by other;
- 91 clarifications, 29 (8.3%) accomplished by self and 62 (17.7%) by other;
- 42 explanations, 5 (1.4%) accomplished by self and 37 (10.5%) by other;
- 16 different expressions, 12 (3.4%) accomplished by self and 4 (1.1%) by other;
- 15 confirmations, 5 (1.4%) accomplished by self and 10 (2.8%) by other;
- 6 rephrasing cases, 5(1.4%) accomplished by self and 1(0.3%) by other;
- 9 combinations, 3 (0.9%) accomplished by self and 6 (1.7%) by other;
- 3 (0.9%) reformat cases and 12 (3.4%) repeat cases, all done by self.

It is interesting that, as Table 4.3 shows, the number of other-repair cases (223, 63.5%) is much higher than for self-repair (128, 36.5%). It seems that other-repair occurs more frequently in Web-based discussion environments than in ordinary conversation, a fact which will be discussed in detail in the following section.

4.5 Discussion

The previous sections in this chapter have outlined the findings of this study in terms of aspects of repair structure, forms of initiation techniques, patterns for repair and preference organization for the Web-based discussion board.

Repair structures

The data have shown that the basic modes of repair structure proposed by Schegloff et al. (1977) may also apply to Web-based conversation — self-repair can issue from self- and other-initiation; other-repair can issue from self- and other-initiation; and failure of repair can issue from self- and other-initiation. However, there are some features of repair structures in Web-based discussion settings that do not, or only rarely, occur in ordinary oral conversation situations, e.g.

- Other-initiation can be issued by several speakers one after another before repair is accomplished;
- Other-repair can be accomplished by several speakers other than the trouble-source speaker and in several turns after the trouble source turn, not just in the next turn;
- Self-initiation and self-repair can be done in several turns next to the trouble-source turn;
- Repair can be initiated with no response undertaken (without repair outcome); and
- Postings (speaking) can be duplicated.

All these features are predominantly caused by the asynchronous conditions, the technology and medium involved, and the use of the written form of the language.

The asynchronous factor allows participants in Web-based discussion groups to join a discussion at different times, and the technology and medium let participants read the postings on the discussion board from any drop-in point, e.g. from the earliest or the most recent one, depending on their wishes, and on the technological indexing (author, time or topic). This means that participants may miss some postings which already exist on the discussion board. Those who join later may do something which has

already been done by others as they may not know that another participant has already issued an initiation or accomplished a repair; also they may make no response to a prior turn. Furthermore, for technical reasons (e.g., transmission speed, etc.), a repair initiation or repair outcome may not appear immediately on computer screens, and so more initiations or repairs may issue or be accomplished. Finally, because the texts produced in Web-based discussion are in written form, trouble-source speakers can review their postings on screen once they have posted them on the discussion board, but other participants may not join the discussion simultaneously. As a result, trouble-source speakers can accomplish self-repairs as many times as they wish, and send duplicate postings if they face technical or other special problems. Thus, self-initiation and self-repair can be done in several turns next to the trouble source turn.

Initiating techniques

The three factors mentioned above — asynchronous communication, the technology involved and the written form of language — not only have an impact on repair structures in Web-based discussion, but also affect the form of initiation techniques and patterns for repair, and even preferences in repair organization. In the discussion of these issues below, these three factors are taken into account.

Seven forms of initiating techniques were identified from the data, namely uncertainty, partial repetition plus a question, disagreement or negation, suggestion, direct request, understanding check, and apology or regret plus indication of prior trouble. Obviously, not all the initiator techniques for repair in oral conversation which have been described in CA work (and reviewed in Chapter 2) are found or are applicable to the data in this study. For example, Schegloff et al. (1977) indicated that initiator techniques for self-initiation within the same turn (which contains the trouble source) use a variety of non-lexical speech perturbations (e.g. cut-offs, sound stretches, 'uh, uhs' etc.) to signal the possibility of repair-initiation immediately following, e.g.

> A: W-when's yer uh, weh-you have one day y'only have one course uh?
>
> (Schegloff et al. 1977, p. 367)

In above example, A uses 'uh' to give a signal as an initiator to repair 'when's yer'. This kind of non-lexical speech perturbation doesn't happen in Web-based conversation, unless participants use special signs intentionally to make it an oral conversation (though this can be found in other CMC forms/contexts, it is never found in the data in this study). As Web-based academic discussions use language in the written form, most initiators use 'lexical expressions' in the specific settings. However, as an initiating technique, the category of 'lexical expressions' seems to cover too wide a range of different initiator devices and cannot be applied for clarifying initiation cases in Web-based conversation. Therefore 'lexical expressions' were not adopted as a form of initiating technique in this study, being replaced by more detailed items, as shown previously.

Another example is that the form 'open class' (Drew, 1997), which is commonly used in ordinary conversation and has received considerable academic attention, can't occur in asynchronous Web-based discussion as an initiator for other-initiation, because 'open class' can happen only in a conversational situation in which an immediate response can be made. As asynchronous multi-participant conversation, Web-based discussion cannot produce immediate interaction technologically. There are many parallel threads for on-going discussion topics and also, as seen earlier, each posting contains as many as about 42 Chinese characters and nearly three sentences on average (see Table 3.3 in Chapter 3). Also, in most cases, a trouble posting may contain more than one trouble; and an initiation turn may not be the next turn after the trouble-source turn. If an 'open class' form was used, except for the speaker who issued the initiation, no one could identify what the exact trouble was and the environment of the trouble-source in a prior turn.

Also, some forms of initiation in Web-based discussion differ from those described for ordinary oral conversation. For instance, a single question particle like '*ah*' or '*Huh*' or the question words '*what*', '*where*', *who*' or '*when*' have been found in the data for both English (Schegloff et al., 1977) and Chinese (Zhang, 1998) for use as a form of other-initiation — but these were never found in Web-based discussion in this study. It is a situation similar to the use of 'open class'; a single question word would not issue an initiation in a clear enough way in Web-based discussion, as the trouble source may contain more than one trouble, and the initiation turn may not

immediately follow it. So, partial repetition of the trouble source turn, plus a question sentence, instead of question word, is used in Web-based discussion as an initiation technique.

A similar argument applies to the initiation technique in the form of 'repeating the trouble source' without the accompaniment of a question word, which can be used as an other-initiation technique in Chinese oral conversation (Zhang, 1998, p. 104). However, no such examples are found in this study. If such a repetition was used alone as an initiation in Web-based conversation, participants other than the speaker of the initiation would have great difficulty in understanding the environment of the trouble-source in a prior turn, and could not identify what exactly the trouble was. Therefore, repeating or partial repeating of the trouble-source only without a question cannot be used as a form for other-initiation in Web-based conversation, although partial repeating plus a question is found.

Furthermore, as has been seen, the data in this study does not entirely support Schegloff et al.'s (1977) proposal that 'self- and other-initiations are done with regular, and clearly different, INITIATOR TECHNIQUES' (p.367) (capital letters in the quotation used by the original authors). As was shown in Table 4.2, though four forms of initiation — 'partial repetition plus a question', 'disagreement/negation', 'suggestion' and 'understanding check' — can be only used for other-initiation, and 'uncertainty' can be only used for self-initiation, the forms 'direct request' and 'apology or regret plus indication of prior trouble' can be employed as initiators for both self- and other-initiation.

Nevertheless, Web-based conversation shares some forms or initiator techniques with ordinary oral conversation, e.g. uncertainty, as a form of self-initiation; and partial repetition plus a question and an understanding check as a form of other-initiation.

Patterns for repair

As outlined in Table 4.2, ten patterns for repair in Web-based discussion were identified in the data analysis. Of the ten, two (reformat and repeat) are for self-repair only, and the other eight patterns can be used for both self- and other-repair.

While repair in Web-based discussion shares some patterns with ordinary oral conversation, it is also differentiated in some ways. For example, for other-repair, reformatting is a repair for some visual graphical troubles, a problem which can only occur in the written form.

For self-repair, the patterns used in Web-based discussion seem more limited than those in oral conversation, as some patterns may be absent. Also, most self-repairs (e.g. editing, correcting, restructuring, etc.) are done in the same turn before being posted to the discussion board. As postings are in written form, and asynchronous discussion does not limit waiting time for participants to respond to postings already on the discussion board, writers can review the texts they are producing as many times as they wish, and they can carry out much repair before sending their postings. As this kind of same turn self-repair does not appear on the receivers' screen, and cannot leave their 'footprint' – record, on the board, some patterns for self-repair, same turn self-repair in particular, will not be found in the data.

Chui (1996) has proposed six major patterns for self-repair in ordinary Chinese conversation, namely repetition, completion, replacement, addition, reordering and abandonment, as reviewed in Chapter 2. Chui's focus was on self-repair, as he believed that 'repair initiated by the speaker predominates over the kind managed by the hearer' (Chui, 1996, p. 345). Therefore, Chui's proposed repair patterns did not cover all patterns of repair, particularly repair accomplished by others who were the hearers at the time the trouble source was produced. And of course, as has already been shown, Chui's (1996) proposed repair patterns may not all be applicable to analysing cases in this study, e.g.

- The pattern of *reordering*, which arose in only two cases in Chui's data for self-repair, was not found in this study, probably because reordering usually happened before a posting was sent.
- The pattern of *replacement* was divided into two patterns in this research, viz 'correction' and 'different expression'. The term 'correction' is employed to refer to the replacement of an 'error' or 'mistake' by that which is 'correct'; while

'different expression' is used to refer to a 'word search', which can occur if an item (e.g. a word) is not available to a speaker when he or she needs it.

- The pattern of *addition* is classified into two patterns, one of which is 'clarification', and the other 'explanation'.
- The pattern of *abandonment* was replaced by 'failure repair' and 'no repair' because it is not possible to identify whether or not a failure repair or no repair is caused by abandonment or non-access.
- The pattern of *repetition*, where it occurs, takes a different form from spoken conversation, as it usually embodies a duplicate posting which repeats a whole utterance, rather than just recycling a 'word' or 'phrase'. Also, because of the written form, marks for repeating can disappear in pre-posting editing. Unlike the situation in oral conversation, duplicate postings in this study are devices of repeat as a pattern for self-repair.

Preferences in repair

As shown in Table 4.3, among a total of 351 repair cases in the two public discussion groups, there were 85 cases of self-initiated self-repair, and 28 other-initiated self-repair. While other-initiated self-repair occurred at the lower rate of 8.0%, other-initiation other-repair had the much higher rate of 34.5% (121 cases). This provides evidence that, in Web-based discussion, the opportunity available to others to initiate repair is *not* used to afford trouble speakers a further opportunity to self-repair. In addition, the majority of repairs in the data are other-repairs, of which there are 223 cases, constituting 63.5% of all repair cases.

Comparison of the results of the current research with Zhao's study (1996, cited in Jiang, 2003, p. 268), which also took place in a Chinese academic discussion setting, gives further support to the view that other-repair may not be the 'rare event' (e.g. Levinson, 1983, p. 342) as several other studies of Chinese conversation have suggested. In Zhao's (1996) data, based on 260 instances of repair from ten discussions, self-repair made up 66% of repairs and other-repair 34% — the latter, though a significant percentage, being much lower than the 63.5% found in the current study. It is recognized, of course, that the situational contexts of the two studies are very different. Zhao's data were based on discussion in spoken form and,

although Web-based discussion is very much like 'talk', participants 'write' (not 'speak') their texts, and can rewrite or edit them until they are ready to send them out. In other words, participants in Web-based discussion have more opportunities to operate self-repair than in oral conversations. Also, using the Web as the medium for discussion has an impact on the organization of the talk-in-interaction, causing some technical troubles with a greater need of self-repair than other-repair, as the data show.

The results of the present research can also be compared with Chui's (1996)'s study, another example of work on repair organization for Chinese conversation. Chui proposed that 'Chinese speakers exhibit a preference to repair them (syntactic troubles) on their own, with a mean of 71.3% (N = 201) (p. 366)'. Although Chui's investigation focused on repair within a syntax environment, and concluded that self-repair was preferred by Chinese speakers, the figure of 28.7% for other-repair hardly fits Levinson's description of other-repair as 'a rare event'. It appears, then, that the studies by Zhao and Chui may give some support to the argument in this research that other-repair is 'not a rare event' in Chinese conversation in both spoken and Web-based contexts

Complicated factors may be influencing the preference for other-repair in Web-based academic discussion. Some clues about this preference can be seen in the analysis of repair patterns in Table 4.3.

Table 4.3 shows that there were 62 cases using the pattern of 'correction', with self-correction and other-correction equal at 17.7%. Also, the pattern of 'different expression' accomplished by self (3.4%) is more frequent than by others (1.1%), patterns of 'rephrasing' accomplished by self (1.4%) is also more frequent than by others (0.9%), and patterns of 'reformatting' and 'repeating' are all accomplished by self (0.9% and 3.4% respectively). So far, it seems as if self-repair is still occurring more in this setting. However, the findings on the other patterns for repair change the picture dramatically: the pattern of 'complement' was accomplished by self in 23 cases (6.6%), and by others in 72 cases (20.5%); the pattern of 'clarification' is accomplished by self is 29 cases (8.3%), and by others is 62 cases (17.7%); and the pattern of 'explanation' is accomplished by self in 5 cases (only 1.4%) and by others is 37 cases (10.5%). Also, both the patterns of 'confirmation' and 'combination'

accomplished by others are double those of self (10 and 6 as against 5 and 3 respectively).

Closer scrutiny of the findings in Table 4.3 shows even more distinctions between self- and other-repair. For instance, there are 14 (4%) cases of self-initiated self-complement, but 58 cases (16.5%) of other-initiated other-complement; there are 6 (1.7%) cases of self-initiated self-clarification, with 19 cases (5.4%) of other-initiated other-clarification; and there are only 2 cases (0.6%) of self-explanation, as compared with 12 (3.4%) cases of other-initiated other-explanation.

Some other results also provide evidence for a different viewpoint on preferences for repair from what has been proposed previously. For example, from their data on ordinary conversation in English, Schegloff et al. (1977, p. 376) argued that 'in the case of those repairables on which repair is initiated, but not in the same turn or transition space, OTHER-INITIATIONS OVERWHELMINGLY YIELD SELF-CORRECTION' (capital letters used by the original authors to emphasize the point). However, this does not seem to be the case in Web-based conversation in Chinese, where the number of cases of other-initiated self-correction together with other-initiated failure of correction (3 cases in each) is not as high as other-initiated other-correction (18 cases).

Another finding which is worth looking at in detail is where initiation received no repair from any participant in the discussion groups. Table 4.3 shows that there were of 42 repair-initiations by both self and other which received no response, with the rate for other-initiation being higher (8.5%) than for self-initiation (3.4%). Once again, this distinction seems to be related to particular characteristics of Web-based conversation. For example, in Web-based conversation, most self-initiated repairs already undertake self-correction during the process of text production, so there should be fewer cases of self-initiation with no response. Also, in ordinary conversation, other-initiations are regularly withheld for a time to provide an 'extra' opportunity for the trouble source to self-initiate a repair. Such opportunities are followed by transition-space self-initiation, with no other-initiation at all; and due to the extended withholding of the other-initiation repair, the occurrence of other-initiation is sometimes avoided entirely. Schegloff et al. (1977) argue that this device

has a bearing on the preference for self- over other-initiation of repair (p. 374). Yet the data in this study show that where repair was initiated but got no response, more than 70% (30 out of 42) of the cases were repair initiated by others. So other-initiation without repair was clearly more prominent in this context, though there *may* have been cases (e.g. Excerpts 14 and 15) where other-repair/correction was withheld to provide an opportunity for the trouble-source speaker to self-repair — though neither other-repair nor self-repair eventually occurred.

In Table 4.3, the items of no repair undertaken by any participant are catalogued by self- and other-initiation and ascribed to self- and other-repair respectively. Other-initiated self failure repair is also treated as other-repair. As discussed in an earlier part of this chapter, although duplicate postings may not all be self-correction, they are still treated as self-repair.

The data above appear to argue against the view that preference for self-repair in conversation organization is a general phenomenon. However, 'any human interaction is embedded in *multiple* and *complexly-related* contexts of relevance' (Latour, 1996, p. 232, cited in Prevignano and Thibault, 2003, p. 81). An effort is made below to try to resolve the apparent conflict between the findings in this study and Schegloff et al.'s (1977) argument on preference for repair, but still in the light of Schegloff et al.'s theoretical framework.

Schegloff et al. (1977) highlight three points for self-repair in the same turn: '(i) opportunities for self-initiation come before opportunities for other-initiation; (ii) massively, for those repairables on which repair is initiated, same-turn and transition-space opportunities for self-initiation ARE TAKEN by speakers of the trouble source; (iii) the course or trajectory of same-turn initiated repairs regularly leads to successful self-repair in the same turn, i.e. before the position for other-initiation' (p. 376). Following these principles, it may be seen that trouble-source speakers have more opportunities for self-repair, and self-repair can be done in the same turn before the position for other-initiation; thus, it may be that when the occurrence of other-repair is more frequent than self-repair in the setting of Web-based discussion for this study, this is caused by self-repair being accomplished already in the same-turn. As has been stressed on several occasions before (e.g., 4.1.2

and 4.3.9), the written form, asynchronous nature and screen display in Web-based conversation clearly have an impact as participants can review their writing again and again, proofreading, editing or rewriting it before sending it out. That is, in most cases, self-initiation and self-repair have already taken place in the same turn, before others take a turn following it.

The technology involved means that the process of self-repair can be accomplished in the same turn but not be displayed on anyone else's screen. Also, it is not fixed in the archives of the discussion board for retrieval or re-reading; so although some self-repair occurs in the same turn in the patterns of 'complement' and 'different expression', most clues about self-repair in the same turn are missing from the data. This may be regarded as the main reason for the conflict between the results in this study and Zhang's (1998, Abstract, p.1) finding of 'the vast majority of same-turn self-repair' in oral conversation of Chinese, and also for the less common occurrence of self-repair in Web-based conversation compared with ordinary conversation. Also, it should still be noted that, despite this, self-initiated self-correction provided the highest number of cases (28) from all sub-categories of correction patterns, which may give some support to the belief that self-repair is preferred for corrections to other patterns of repair in the Web-based discussion, just as in ordinary oral conversations.

Although the actual number of cases of self-repair accomplished before any trouble posting appears on screen, and the number of self-initiated self-repairs in all the patterns of repair found in the data may be higher than observed, attention has to be paid to the fact that other-repair occurs with very high frequency in the patterns of 'complement', 'clarification' and 'explanation', compared with the patterns of correction and others, e.g., different expression, confirmation and combination. This implies that while correction is preferred to be given to trouble-source speakers themselves, other-repair tends to perform the roles of complementing, clarifying and explaining, which help to build up or add to the knowledge/opinions for ongoing discussion, rather than correcting others' errors or mistakes. The fact that other-repair is accomplished more in the patterns of 'complement', 'clarification' and 'explanation' implies that academic discussion needs considerable contributions to knowledge construction and development, and the particular settings for academic

discussions can also influence the conversation organization in terms of repair organization and repair preferences.

Besides the factors discussed above, Schegloff et al. (1977) provide an exception to the highly constrained occurrence of other-correction, which can also be applied to other situations of institutional conversation such as the Web-based academic discussion in this study. The exception is most apparent in the domain of adult–child interaction, in particular parent–child interaction; but it may well be more generally relevant to the not-yet-competent in some domains without respect to age. If that is so, Schegloff et al. (1977, p. 381) would argue that other-correction is not so much an alternative to self-correction in conversation in general, but rather a device for dealing with those who are still learning or being taught to operate within a system which requires, for its routine operation, that they be adequate self-monitors and self-correctors as a condition of competence. In that sense, it is only a transitional usage, as self-correction is awaited. Because much of evidence found from various data in investigations questions the generally constrained occurrence of other-correction, Norrick (1991) paints a rather different picture of the organization of repair than that Schegloff et al. present, and argues that corrective action by single participants with more language ability or background information is a normal response to certain conversational circumstances; that is, 'participants negotiate the organization of repair in any given context based on their perception of who is better able to recognize and correct errors due to differences in language ability and background information. This accounts not only for the unmarked occurrence of other-corrections in conversations between parents and their children, teachers and students, ... but also for the relative reluctance associated with other-corrections in conversation between adult native-speakers with approximately equal background knowledge' (pp.79–80).

If the points above are accepted, it can be argued that Schegloff et al.'s (1977) principle of self-initiated self-repair being preferred over other-initiated other-repair is still a fundamental practice applying to participants in Web-based conversation — but that the significant changes in the context reshape participants' behaviour and practice in some ways related to conversation taking place on the Web.

While the preference for self-repair can be considered as a universal principle in conversation, a question still remains about other-repair being 'a rare event', as

argued by Levinson (1983), because current studies on Chinese conversation do not appear to support this. If 'a rare event' for other-repair is a real feature of ordinary English conversation, the fact that more other-repair (even if not in the majority) occurs in Chinese conversation must be examined in terms of language or culture — what Schegloff calls 'external' context (Prevignano and Thibault, 2003, p. 80). However, this area has remained almost completely unexplored to date, and needs to be examined further. The results of this study can perhaps be an example or a source for such a comparative study in this field.

Before ending this chapter, one other issue that relates to the study's methodology needs to be discussed. As addressed in Chapter 2, methodology in the CA tradition has focused on qualitative analysis, basically on a case-by-case basis. This has received some criticism because of 'the absence of quantification' (Prevignano and Thibault, 2003, p. 12), though CA works with very substantial collections of instances and deals with large amounts of data. As has been shown, this study employs both qualitative and quantitative methods to analyze the data. However, it may be that there are other ways of presenting the results of this study, and it may eventually be found that the preferences for self- and other-repair are very different from what has been found in some studies of English conversation.

Chapter 5

Conclusion

This study has examined the basic structures, forms of initiation techniques, patterns and preferences for repair in Web-based academic discussion from a Conversational Analysis perspective, and has outlined and analyzed the findings on features of repair organization for asynchronous Web-based conversation in Chinese. The four specific research questions raised in Chapter 1 have been addressed, with detailed explanation and illustration. This final chapter gives a brief overall conclusion and discusses the possible implications of the results.

The present research has focused on how repair in Web-based conversation is organized within the system of turn-taking, particularly the relationship between repair and turn-allocation. Before concluding the thesis, it should be emphasized again that, if it is not the first, it must be one of only a very few studies which have applied CA to Web-based conversation using Chinese. Therefore, the differences or similarities in repair in different contexts and through different media, such as the Internet or Web, still require much more extensive exploration.

Repair is a phenomenon that can be observed in many, if not all, natural conversations. As has been seen in this research, repair is also a necessary part of Web-based conversational organization, reflecting the speakers' sensitive understanding of their needs during interactive communication. Analysis of this phenomenon can provide us with a real understanding of Web language use and its users. The particular characteristics of the occurrence of repair in Web-based Chinese discussion make the communication different, to some extent, from oral conversation. However, it is possible that the mental organization of repair on the Web is similar to repair in oral conversation, as described by Schegloff and his colleagues.

While Web-based conversation shares the same possible structures for repair as those identified by Schegloff et al. (1977) for ordinary conversation in English, some

special features of repair organization in Web-based conversation do not, or rarely, appear in oral conversation, e.g.

- Other-initiation and other-repair can be carried out by some speakers one after another;
- Self-initiation and self-repair can be done in more than one turn by the trouble-source speaker him/herself;
- Repair initiation can have no response (without repair outcome); and
- Duplicate postings are common in Web-based conversation as self-repair.

Seven forms of initiation techniques were identified in this study, some of which are employed differently from in oral conversation. Also, ten patterns for repair were found, some of them exclusive to Web-based conversation. After analysing all the repair cases in the data, it is found that Schegloff et al.'s contention (1977, p. 374) that there is 'a preference for self- over other-initiation of repair' was not supported, as more than half (193 cases, 55%) of the repair cases are initiated by others (see Table 4.3). This means that other-initiation may not always be less preferred in some circumstances. Also, the majority of the repairs in the data (63.5%) are other-repairs. Some possible reasons for the discrepancy between the findings in this study and Schegloff's (1977) work are outlined in Chapter 4. Three of these points are stressed again here. The first relates to the fact that the Web as a medium for conversation can hide most clues to self-repair from the screen, which may reduce the number of self-repairs showing up. The second — drawing on the work of Norrick (1991) — is concerned with the participants' competence for repair: since the data for this study come from an academic setting, which requires accurate knowledge, information or facts, speakers who have a higher competence in the subject can carry out more repairs in making contributions to on-going conversation. The third relates to the mode of interaction, written interaction, which provides participants with a more equal opportunity to repair something others have said. In the written mode, there is no need to withhold an initiation to give an 'extra' opportunity to the trouble source speaker for self-repair — obviously, it is assumed that, if the trouble source speaker could do a self-repair, s/he would do it during the process of producing the text and have completed it before presenting it to others. Because of the nature of written text

production, written interaction places a higher demand on other-repair, which is a necessary mechanism commonly used for interaction between writers.

Although this research reveals that Web-based academic discussion has some special characteristics, the basic features or practices for repair in ordinary conversation described by Schegloff et al. (1977) are also found here. It is, therefore, reasonable to argue that Web-based conversation has the same organization or operations as ordinary oral conversation. The findings in this study may be taken to imply that the organizational structures, procedures and conventions of oral conversation are the essential nature or internal system of human communication, and can be applied to all settings in which people converse. In other words, participants in Web-based conversation tend to use ordinary conversational conventions in institutional conversation (academic discussion in this case) through a different medium (in this case the Web). The conventions of ordinary conversation are the fundamental organization or primary principles for humans practising conversation in all contexts. Furthermore, and not surprisingly, technologies designed for human communication (such as the Web) are all based on natural language use, particularly on the organization of ordinary conversation: people who attempt to communicate via the Web are still reliant on ordinary conversational competencies. From this viewpoint, Schegloff et al.'s (1977) proposals on repair organization should be applied generally to conversation taking place in a Web environment, as a 'context-free structure' (Sacks et al., 1974, p. 699) for a conversation system.

However, as detailed in previous chapters, three factors of Web-based conversation result in its having some different characteristics from oral conversation — the medium of the Web, the asynchronous interaction, and the written form of language use — of which the first is the central, as the latter two are determined by it. In the Web, participants can carry out talk-in-interaction asynchronously, and type characters on the screen which appear as a written instead of an oral form of language. The Web enables participants to use computers as a replacement for writing, and also for speech, which obviously, create some constraints on the language used in conversation. Although the internal structures and organization of ordinary conversation still exist and operate within the system of Web-based conversation, participants are 'forced' to adapt their use to the medium. To be more precise,

participants are not 'forced' to change, but initiate it as human beings are competent in ways of managing the impact of such external influences, and developing the possibilities for talk in the particular circumstances. From this viewpoint, to say that repair in Web-based conversation has some different characteristics from ordinary conversation is also justified — it reflects 'context sensitivity' (Sacks, et al., 1974, p. 699) in the conversation system.

Apparently, the factors which have an impact on Web-based conversation come from outside the system of the interactional practice; they are exterior, not interior to the primary structure of conversation. Such external factors constrain the mediated conversation, and lead participants to shift the norms and conventions of turn-taking and repair operation to engage in the mutual collaborative achievement of communication through the medium of the Web.

The Web can be viewed as an artefact which may both shape, and be shaped by, the practices participants use in conversation with, around and through it. Because participants talk in a technologized interactional environment, they have to fit into the communicative conditions in which they find themselves. Put another way, external factors, which have been stressed throughout this study, shape the model of participants' talk-in-interaction, even though participants internally tend to follow the principles of oral conversational organization. Thus the factors diverge into two strands, one of which is internal and the other external. The combination of these internal and external factors helps us to understand how conversation is organized and operated in some ways which differ from ordinary conversation.

The emphasis in the CA tradition is 'not on the frequency of some activity but on the details of its management and accomplishment' (Drew, 1989, pp. 99–100). However, the analysis of the frequency of different patterns of repair in this study appears to have provided some meaningful results, particularly as regards the preference for repair. For example, the findings on the frequency of repair provide strong evidence contrary to the views of Schegloff et al. (1977) and others (e.g., Levinson, 1983), who considered other-repair to be highly constrained. It was found that in Web-based discussion, participants accomplished other-repair more frequently than in ordinary conversation because, as noted above, other-repair is a mechanism commonly used in

the written interaction mode; and the academic discussion context also required more other-repair, as more accurate knowledge and information must be obtained from others who are at a higher level or more competent than the trouble-source speaker. As a 'self-righting mechanism' (Schegloff, 1992, p. 1341), repair organization in Web-based academic discussion allows talk-in-interaction to keep going in the face of various types of 'trouble', and other repair is efficient in facilitating participants' involvement in the discussion.

One of the purposes of this study is to demonstrate — by using Conversational Analysis theory and with the case study as a practical example — how the CA research agenda on the organization of talk-in-interaction can be fruitfully developed to investigate repair organization in Web-based conversation, particularly academic discussion. This study has shown that CA is a powerful means for analysing human interactional communication through the Internet or Web.

This study has produced new data on conversation taking place in an academic setting, through the medium of the Web – using language in written form, and in Chinese rather than English. It has also added to the existing CA work on repair, focusing on how repair is organized in asynchronous conversation in Chinese through the Web.

This research not only suggests how the flexibility of Web-based discussion benefits distance education through collaborative learning and peer interaction. It also has broader implications for distance education and the study of language use. For example, the fact that other-repair occurred more in Web-based conversation in the patterns of complement, clarification and explanation than in the pattern of correction implies that there are fewer errors or mistakes in written texts in relation to expression, but more repairables in relation to thinking , information or facts. This is because, more so than in the spoken form, the written form of language usually presents a self-repaired production, and provides more opportunities for writers to modify their contributive text before sending it. From this perspective, Web-based conversation may be more effective and accurate for knowledge construction and idea exchange. In addition, the fact that more other-repair occurs in Web-based conversation indicates that participants can join the conversation with more freedom than in oral conversation, which may be constrained by, for example, politeness, face or other

interpersonal factors. Participants can, therefore, be more adventurous when accomplishing repairs for others in Web-based discussion, as the Web provides more equal opportunities to participants to say whatever they wish. This is, of course, the sort of environment academic discussion needs in order to develop and progress, and is an effective way of building up a learning society for peer talk-in-interaction.

Another implication of this study for education is that its findings can help on-line moderators or distance educators to understand in depth the nature of the process of Web-based discussion. This research can also lead them to consider some issues in on-line or Web-based teaching and learning from an applied linguistics perspective, rather than just from the perspective of education. Finally, the study may provide technologists with criteria for developing technology for communication which are based on natural language use.

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Appendix I - VI

Transcription conventions in this study

All the data collected for this study comes from web-based discussion boards for teacher education courses, which originally was presented in Chinese and appeared in written form on computer screen. The original Chinese data is supplied in Appendix VI for reader in comparison with English translation. With reference to CA transcription convention, the transcription notations used in excerpts for the report are given below.

…	posting/message to continue or be omitted
(( ))	commentary by transcriptionist
→	points out a phenomenon under scrutiny
Underline	highlights parts related to the phenomenon under scrutiny
Re:	original mark in the web-based discussion board in front of topic line indicated the posting being in reply.
Re: (2)	the number in parentheses indicates the position of focusing posting in the sequence for responding
(T)	posting sent by tutor
(S)	posting sent by student
(CC)	posting sent by Course Coordinator
Pinyin	*Pinyin* is used when the transcription is not sure and its representation in Chinese characters, e.g. names of person, place, etc.; or, when a mispronounced word has no correspondent characters; or, when the English translation may not exactly present the word in Chinese.

Besides above, the other transcription symbols used in this study, particularly in quotations of transcription for oral conversation, follow the general practice in conversation analytic research and are the same as those first developed by Jefferson (see Atkinson and Heritage [eds.], 1984:ix-xvi).

A:	code of name of speaker
.	a stopping intonation, not necessarily at the end of a sentence.
,	a continuation intonation, not necessarily in the middle of a sentence.
?	a rising intonation. not necessarily after a question.
:	lengthening of the prior sound. The more colons, the longer a lengthening is.
(?)	uncertainty about the identify of the speaker (in the speaker column)

-	cut-off
h	(or (*h*))aspiration, breathiness, or laughter tokens
> <	talk delivered at a quicker pace in relation to surrounding talk is enclosed in these two symbols
[ ]	overlapped speech in contiguous lines
	[is used to mark where two or more speakers begin simultaneously or where a speaker overlays the talk of another speaker
	] denotes where overlapped speech ends
	[...] denotes where overlapped speech begins and ends
	[ ] mark the point where one speaker stops and another starts up contiguousl
=	"latching" or contiguous talk: i.e. there is no pause after the completion of one utterance and the beginning of another
(2.1)	the length of a pause or silence measured in seconds
(.)	unmeasured micropause
( )	transcriptionist doubt of what was said
CAPITALS	mark passages delivered in a louder voice than surrounding talk

Original Chinese transcripts as examples drawn from Zhang (1998)

[8]
1 周： … 休息完了以後下午就集合.
→ 2 一點半 – 一點四十集合，然後走
隊列…

(Zhang, 1998:46)

[9]
1 宮： 上次還有那個，我就講的那個雜
2 誌裡面，還有就專門講那個黑人
3 頭髮
4 (?) 哎
5 宮： 始終是假的
6 (?) 噢
7 宮： 他們頭髮都是假的.
→ 8 忻： 啊？黑人的頭髮是假的啊？
9 宮： 不是，黑人的長髮都是假的，因爲
10 他們的頭髮都貼在頭上的呀

(Zhang, 1998:99)

[10]
1 妹： （ ）哎你不老是說要給我點兒那
2 個甚麼，還沒給我.
3 吳： 甚麼啊？
→ 4 妹： 那個甚麼，那個叫甚麼來着？
5 吳： 硝化物（ ）
6 周 氫化物
7 吳 氫化物
8 妹 啊，氫化物

(Zhang, 1998:176)

[11]
1 周： 哎，你們的專業和她們的專業有
2 甚麼聯繫沒有？你搞醫的和搞-
→ 3 搞心理學的，應該是有聯繫吧.
4 妹： 她學藥啊=
5 吳： =對我〔學藥
6 妹： 〔學藥偏重化學

(Zhang, 1998:162)

[15]
1 程： 摘蘋果我也沒有蘋果我
2 (.)((清嗓子))我 - 我摘過一次
→ 3 (1.1)我那不是摘蘋果那是摘：那
4 個櫻桃

(Zhang, 1998:37)

[16]
→ 1 田： … 第一次騎摩托車讓那個誰，春
2 玉，春玉帶我坐，第一次坐摩托車，
3 不是第一，就在威海啊

(Zhang, 1998:40)

[17]
1 女： …我領著孩子去吃：(.) 麥當勞
→ 2 然後呢轉過身呢那個- 東西那個
3 手袋就沒有了

(Zhang, 1998:48)

[21]
1 沈： 貴姓啊？
2 信： 哎我姓（xin4）哪，
→ 3 由： (xin4) ？=
4 信： = 呃對對對 =
→ 5 沈： = 甚麼（xin4）啊？
6 信： 信封的信.
7 沈： 噢：那是- sh- 少見啊

(Zhang 1998:107)

[30]
1 男： [哎，他們說我家裡很遠哪
2 (0.9)
→ 3 孫： 你們家甚麼？
4 (1.0)
5 男： 他說我們家- (0.6) 很遠哪

(Zhang 1998:102)

[31]
1 周： …然後那甚麼食堂門口，集合，
2 然後唱歌，唱完歌進去吃飯.

3 妹： 哎，你們唱得不響讓吃嗎？

→ 4 周： 啊？
5 妹： 如果唱得不好的話還讓你們吃
6 嗎？=
7 周： =就那麼回事兒，反正(.)大家都
8 哼哼兩句就完了，就過去了.唱完
9 以後就吃飯.吃完飯然後休息…

(Zhang 1998:97)

[32]

1 劉： …旅客(檢查)的時候它不有個安
2 全檢查嘛，
3 陳： 嗯
4 劉： 安全檢查就把所有的 xi-大行李就
5 從那個輸送機上過去啊，小行李呢
6 全是安-由安全員檢查了 h 啊，
[這都是很正常的
7 陳： [唔
→ 8 陳： 你說是機場的安全檢查是吧，
9 劉： 呃機場，嗨

(Zhang 1998:110)

[33]

1 A： 那這事兒發生在你身上怎麼辦？
2 >如果<你：：將來很有錢了，
3 C： 唔
4 A： 娶了一個：：特首做老婆了
5 -啊做老公了
6 C： hhuhuhh .hhh
7 A： 那你不就是：：(.)遇到類似情況
8 怎麼處理呢？
9 (.)
10 ( )
→ 11 C： 遇到類似情況？你說離婚的事？
12 A： 不(h)不 huh
13 [hhuh(你怎麼老想這)]

(Zhang 1998:111-112)

[34]

	1	周：	我知道制劑有制劑室的。我們那
	2		有個醫院的制劑室那個地方做甚
	3		麼::嗯
	4		(.)
→	5	吳：	壓片兒甚麼的
	6		(.)
	7	周：	鴉片？
	8	吳：	不是，就那個壓那個藥片兒

(Zhang 1998:105-6)

Original transcripts as examples drawn from Chui (1996)

[24] → 1 H: ..wo –
1.SG
'I
→ 2 ..wo *shi* ˆ*zhidao wo* *you zhe ge maobing a* =,-
1.SG EMP know 1.SG have this CL defect PRT
I do know I have this kind of defect.'
(Chui, 1996:346)

[25] → 1 L: …(1.) *fanzheng* shi--
anyway time
'Anyway
→ 2 .. shijian *dao* *le*,-
.. time arrive PRT
when the time comes
3 *jiu* *sheng* *le*.\
then be.promoted PRT
you will then be promoted.'
(Chui, 1996:347)

[26] → 1 L: (0) na *jiu* kuai%--
PRT then quickly
'Then quickly
→ 2 …bijiao *kandedao*.\
comparatively can be.seen
comparatively, that can be seen.'
(Chui, 1996:348)

[27] → 1 L: …(1.) *na* *jiu* ˆ*taiwan hoaxiang* mei%--
PRT then Taiwan seem NEG
'Then, Taiwan does not seem
→ 2 .. hai mei *you zhe zhong lizi* *a*=.\
still NEG have this CL example PRT
still does not seem to have this kind of example.'
(Chui, 1996:349)

[28] → 1 W: …*ta* *na* *ge* <L2 *mail* L2> xie ye%--
3.SG that CL mail write also
'His mail was written

→ 2 ... ye xie *de* *hen haowan*,-
also write COMPL very interesting
was also written in a very interesting way.'

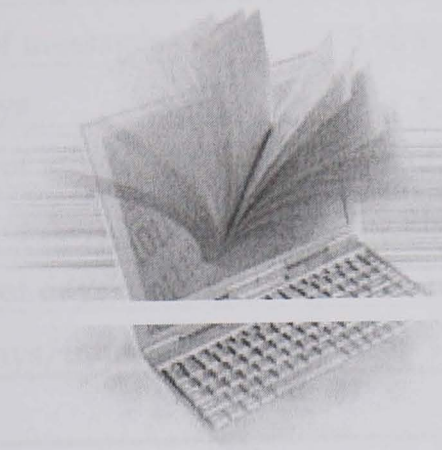
(Chui, 1996:350)

[29] → 1 O: (0)wo zenme zhidao ta hui%--
1.SG how know 3.SG will
'How can I know he will
→ 2 ...ta *zoucuolu*.\
3.SG get.wrong way
he got the wrong way,
3 *..bushi wo zoucuolu*.\
NEG 1.SG het.wrong way
not I got the wrong way.'

(Chui, 1996:350)

Policy of OUHK for using data collected from On-line Learning Environment

http://olechinese.ouhk.edu.hk/names.nsf?Login&RedirectTo=http://olechinese.ouhk.edu.hk/et300c_s0.nsf/discussbydate_public?OpenFrameSet



網上學習系統
Online Learning Environment

Username 使用者名稱 :

Password 密碼 :

Enter 登入 Guest 訪客

Help · Forgot password
登入方法 · 忘記密碼

香港公開大學
THE OPEN UNIVERSITY OF HONG KONG

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The information will be used for student and university administration and research purposes.

For details of the University Personal Data Protection Policy,

please click http://www.ouhk.edu.hk/pps/.

Interval between postings for all discussion groups in ET800C

	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb
Group 1								
Total no of postings	11	15	19	4	12	12	72	48
% to total no of messages - G 1	5.60%	7.80%	9.80%	2%	6.20%	6.20%	37.30%	24.80
Total no of days	6	11	11	4	8	3	23	10
Maximum no of messages/day	4	3	4	1	3	4	9	13
Maximum no of days/interval	5	9	7	12	9	22	3	1
Minimum no of days/interval	1	1	1	4	1	1	1	1
Mean no of days/interval	3	3	3	7	3	13	1	1
Group 2								
Total no of messages	4	1	7	12	2	11	45	63
% to total no of messages - G2	2.76%	0.69%	4.83%	8.28%	1.38%	7.59%	31.03%	43.45%
Total no of days	3	1	5	6	1	7	18	9
Maximum no of messages/day	2	1	2	3	2	3	8	17
Maximum no of days/interval	8	15	25	11	14	38	5	2
Minimum no of days/interval	3	15	1	1	14	1	1	1
Mean no of days/interval	6	15	9	4	14	8	2	1
Group 3								
Total no of messages	12	18	33	8	9	4	48	83
% to total no of message - G3	5.58%	8.37%	15.35%	3.72%	4.19%	1.86%	22.33%	38.60%
Total no of days	7	7	12	6	6	4	20	10
Maximum no of messages per day	3	5	5	2	3	1	6	29
Maximum no of days/interval	5	12	8	13	14	13	9	1
Minimum no of days/interval	1	1	1	3	1	2	1	1
Mean no of days/interval	2	4	2	6	5	8	2	1
Group 4								
Total no of messages	14	10	10	9	1	12	61	34
% to total no of messages - G4	9.27%	6.62%	6.62%	5.96%	0.66%	7.95%	40.40%	22.52%
Total no of days	4	8	8	8	1	6	15	10
Maximum no of messages per day	7	2	2	2	1	5	12	9
Maximum no of days/interval	5	9	9	9	20	16	4	2
Minimum no of days/interval	1	1	1	1	20	1	1	1
Mean no of days/interval	3	3	4	4	20	7	2	1

Group 5								
Total no of messages	0	14	22	3	6	49	105	156
% to total no of messages - G5	0.00%	3.94%	6.20%	0.85%	1.69%	13.80%	29.58%	43.94%
Total no of days	0	10	13	3	4	11	20	11
Maximum no of messages per day	0	3	4	1	2	20	25	34
Maximum no of days/interval	0	5	7	11	19	10	6	3
Minimum no of days/interval	0	1	1	2	2	1	1	1
Mean no of days/interval	0	3	2	6	11	3	2	1
Group 6								
Total no of messages	4	27	9	17	13	16	44	65
% to total no of messages - G6	2.05%	13.85%	4.62%	8.72%	6.67%	8.21%	22.56%	33.33%
Total no of days	4	16	8	10	9	11	19	10
Maximum no of messages per day	1	4	2	3	3	3	5	19
Maximum no of days/interval	3	6	6	11	12	7	4	3
Minimum no of days/interval	1	1	1	1	1	1	1	1
Mean no of days/interval	2	2	3	4	4	3	2	1
Public								
Total no of messages	69	113	67	58	18	31	196	250
% to total no of messages - Public	8.60%	14.09%	8.35%	7.23%	2.24%	3.87%	24.44%	31.17%
Total no of days	12	28	25	23	11	17	30	10
Maximum no of messages per day	14	9	6	6	3	5	29	67
Maximum no of days/interval	2	2	3	4	1	8	2	1
Minimum no of days/interval	1	1	1	1	6	1	1	1
Mean no of days/interval	1	1	1	1	3	2	1	1

Interval between postings for all discussion groups in ET300C

	March	April	May	June
Group 1				
Total no of postings	104	45	66	28
% to total no of messages - G 1	42.80%	18.52%	27.16%	11.52%
Total no of days	18	18	22	12
Maximum no of messages/day	64	5	9	4
Maximum no of days/interval	5	4	4	5
Minimum no of days/interval	1	1	1	1
Mean no of days/interval	2	2	2	2
Group 2				
Total no of postings	57	4	33	17
% to total no of messages - G 2	51.35%	3.60%	29.73%	15.32%
Total no of days	9	4	11	6
Maximum no of messages/day	38	1	12	7
Maximum no of days/interval	9	14	11	3
Minimum no of days/interval	1	1	1	1
Mean no of days/interval	3	7	4	2
Group 3				
Total no of postings	72	18	25	29
% to total no of messages - G 3	50.00%	12.50%	17.36%	20.14%
Total no of days	11	11	10	10
Maximum no of messages/day	51	4	7	7
Maximum no of days/interval	5	7	11	7
Minimum no of days/interval	1	1	1	1
Mean no of days/interval	2	3	3	2

	March	April	May	June	July
Group 6					
Total no of postings	62	9	21	4	
% to total no of messages - G 6	64.58%	9.38%	21.88%	4.17%	
Total no of days	10	4	10	4	
Maximum no of messages/day	49	5	4	1	
Maximum no of days/interval	5	24	8	6	
Minimum no of days/interval	1	1	1	1	
Mean no of days/interval	2	7	4	3	
Group 7					
Total no of postings	54	8	18	30	
% to total no of messages - G 7	49.09%	7.27%	16.36%	27.27%	
Total no of days	16	7	12	8	
Maximum no of messages/day	22	2	3	8	
Maximum no of days/interval	3	6	10	16	
Minimum no of days/interval	1	3	1	1	
Mean no of days/interval	2	5	3	3	
Group 8					
Total no of postings	55	15	7	15	
% to total no of messages - G 8	59.78%	16.30%	7.61%	16.30%	
Total no of days	12	8	3	6	
Maximum no of messages/day	37	3	4	5	
Maximum no of days/interval	5	16	19	10	
Minimum no of days/interval	1	1	2	1	
Mean no of days/interval	2	4	9	3	

Group 4					Group 9					
Total no of postings	107	20	43	29	Total no of postings	91	11	15	15	
% to total no of messages - G 4	53.77%	10.05%	21.61%	14.57%	% to total no of messages - G 9	68.94%	8.33%	11.36%	11.36%	
Total no of days	7	6	5	8	Total no of days	17	9	9	7	
Maximum no of messages/day	96	7	26	7	Maximum no of messages/day	27	2	4	8	
Maximum no of days/interval	2	23	22	27	Maximum no of days/interval	4	6	10	5	
Minimum no of days/interval	1	1	1	1	Minimum no of days/interval	1	1	1	1	
Mean no of days/interval	1	5	5	4	Mean no of days/interval	2	3	3	3	
Group 5					Public					
Total no of postings	58	7	31	6	Total no of postings	312	101	202	107	1
% to total no of messages - G 5	56.86%	6.86%	30.39%	5.88%	% to total no of messages - Public	43.15%	13.97%	27.94%	14.80%	0.14%
Total no of days	10	4	7	5	Total no of days	27	27	29	14	1
Maximum no of messages/day	36	3	20	2	Maximum no of messages/day	58	10	17	17	1
Maximum no of days/interval	10	12	14	3	Maximum no of days/interval	2	3	2	7	1
Minimum no of days/interval	1	2	1	1	Minimum no of days/interval	1	1	1	1	1
Mean no of days/interval	2	9	4	2	Mean no of days/interval	1	1	1	2	7

Original data of the excerpts displayed on the web-based discussion boards

Example 1:

資料編號	時間	發言者	標題	內容
P298	2002/10/25 09:29PM	Mr 溫 (導師)	共同備課	集體備課有助將經驗教師的力量集結起來, 所以其意義也就超越了"備課"的範圍.
P299	2002/10/26 05:39PM	Mr 劉 (導師)	Re: 共同備課	既然已超越「備課」範疇，那已不是「共同備課」了。
P300	2002/10/26 08:19PM	Mr 溫 (導師)	Re: Re: 共同備課	共同備課的實質意義已超越“備課”的範圍, 這點我在討論區中已不只一次提出過. 有關共同備課的意義, 在"學會學習: 終身學習 全人發展" (2001.6)文件中第66至67頁已有詳細的介紹.

Excerpt 1/Example 2:

資料編號	時間	發言者	標題	內容
P019	2002/07/23 01:17	Ms 陳	Re:Re:Re: 發展課程	((屏幕上呈現的中文全部是亂碼))
P020	2002/07/23 01:20	Ms 陳	Re:Re:Re: 發展課程	讓我來回應。
P021	2002/07/23 01:21	Ms 陳	Re:Re:Re:Re: 發展課程	讓我來回應。<請看附件 ((但並無附件))
P023	2002/07/23 03:09	Ms 陳	Re:Re:Re:Re:Re: 發展課程	讓我來回應。<請看附件. ((附有可以開啓閱讀的附件))

Excerpt 2/Example 3:

資料編號	時間	發言者	標題	內容
P2392	2002/04/08 11:44 PM	Ms 鄧 (導師)	Re: Re: School based curriculum development	……在國內的民教網有一篇很好的論文分析校本課程發展與國家課程的分別及爲何校本課程發展是一個世界課改的趨勢，想這是一篇值得一讀的文章:「課程研究與課程改革的

				發展趨勢——(二)世界課程改革的發展趨勢」網址如下：www.pep.com.cn/kechengjcyjs/2002-3/86.htm
P2393	2002/04/08 11:48 PM	Ms 鄧 (導師)	Re: Re: Re: School based curriculum development	對不起，要更正網名：是「人教網」，網址：www.pep.com.cn/index1.htm
P2394	2002/04/08 11:56 PM	Ms 鄧 (導師)	值得分享的網址	國內的「人教網」http://www.pep.com.cn/index1.htm 提供了很多關於課程研究的論文，如：課程改革、課程理論、課程歷史、教材研究、案例研究、學術信息等，有助本港同工了解國內課改或世界課改的發展情況，讓我們反思本地的課改情況，值得瀏覽。

Excerpt 3:

資料編號	時間	發言者	標題	內容
P2541	2002/05/13 01:05 AM	Mr 溫 (導師)	Re: Re: Re: Re: Re: 解難	……教"與"學"的過程，寶貴在於引導學生掌握開啓困難的鑰匙……
P2550	2002/05/13 10:07 PM	Mr 劉 (導師)	Re: Re: Re: Re: Re: Re: 解難	「解難」與((開啓))困難」是否有分別呢?
P2553	2002/05/13 10:37 PM	Mr 溫 (導師)	Re: Re: Re: Re: Re: Re: Re: 解難	((都是)) 解決困難

Excerpt 4:

資料編號	時間	發言者	標題	內容
P296	2002/10/24 07:54PM	Ms 馮	Re: Re: Re: Re: Re: Re: Re: Re: Re: Re: 共同備課	我同意梁老師對"集體備課"的理念,……推行"集體備課"並不容易，但從我們多年來的經驗看，它是利多於弊的，因此值得去嘗試!
P297	2002/10/24 09:15PM	劉錦民 (導師)	Re: Re: Re: Re: Re: Re: Re: Re: Re: Re: 共同備課	我都相信集體備課一定有好處的。 你說在推行集體備課並不容易，可否具體說明不容易的地方?
P303	2002/10/29 10:12PM,	Ms 梁	Re: Re: Re: Re: Re: 共同備課	我校每隔兩星期就有一天需要老師留下來，用來開會或共同備課。但是，同一個老師可能要出席不同的會議或備課會，時間安排有困難。請問有沒有意見可以提供給我們作參考呢？

P307	2002/10/31 03:21PM	Ms 馮	Re: Re: Re: Re: Re: Re: 共同備課	我想在此一併回答劉導師及梁老師的問題。基於我校是半日制學校，時間及空間的運用是最大的問題。 因此，我們每學期會分三次進行集體備課。……

Excerpt 5:

資料編號	時間	發言者	標題	內容
P2496	2002/05/06 07:13 PM	Ms 劉	教師在「中央課程」及「校本課程」中所扮演的角色	教師在「中央課程」中所扮演的角色： 1.以中央課程爲藍本，因應學校的背景作適當的調適及剪裁； 2.對中央課程作出反思。……你們同意嗎?或有沒有其他的補充呢?
P2501	2002/05/07 09:08 AM	Mr 鄧 (學科主任)	Re:教師在「中央課程」及「校本課程」中所扮演的角色	如果可以對中央課程作真正的反思, 那中央課程便有可能不是藍本了。如果中央課程必然是藍本, 那並沒有反思的需要。

Excerpt 6:

資料編號	時間	發言者	標題	內容
P2403	2002/04/12 12:04 AM	Mr 李	Re: Re: Re: Re: Re: Re: Re: Re: Re: Re: Re:老師何去何從？	我非常贊成「合作要大家都願意付出才可以達成成果的。」但問題是有些教師還停留在放學就是下班的思想，想問一問誰有能力去平衡這個現象? 教署?校長?還是....
P2405	2002/04/14 06:46 PM	Mr 劉 (導師)	Re: Re: Re: Re: Re: Re: Re: Re: Re: Re: Re:Re:老師何去何從？	我不明你所指「放學就是下班的思想」是甚麼意思。放學了爲什麼不可以下班呢?
P2407	2002/04/15 12:40 AM	Ms 林	Re: Re: Re: Re: Re: Re: Re: Re: Re: Re: Re: Re: 老師何去何從？	「老師何去何從？」這提問實在有意思，亦令人有點兒慨歎！教改是校本的，需要全校教師齊心參與、策動，才能成功，問題就在此！是否人人都願意花心力從事如此艱巨的工作？彼此方向真的一致嗎？「放學就是下班」這句話說出問題的癥結所在。

Excerpt 7:

資料	時間	發言者	標題	內容

編號				
P2096	2002/03/02 03:14 PM	Mr 楊	Re: Re: 教改	時間永遠是我們最大的敵人
P2108	2002/03/05 06:01 PM	Mr 鄧 (學科主任)	Re: Re: Re: 教改	你是指如果我們能消滅時間, 我們便會取得最大的勝利??
P2110	2002/03/05 06:13 PM	Mr 劉 (導師)	Re: Re: Re: Re: 教改	或許不滿足現在的成效，若時間多些，會做得更好。你們同意嗎?

Excerpt 8:

資料編號	時間	發言者	標題	內容
P136	2002/08/13 11:28	Mr 劉 (導師)	Re: 黑夜尋寶探索圖	多謝你的分享。 我簡略看了一次，欣賞你的心思，對課改重點的掌握，下了一番苦功做了這份簡佈表。 我第一個意念。 這個簡佈表是你的所有權，欣賞你的不吝嗇。第二個是一個建議，我們這個在網上一起討論和學習的群體，應該有一份操守，簡佈表可作參考，不能抄考，若引用你的部份影片應列明出處。 大家意見如何?
P140	2002/08/14 11:02PM	Ms 黃	Re: Re: Re: 黑夜尋寶探索圖	從你的分享, 可知你下過不少功夫, 亦欣賞你對課程的認識, 希望日後大家可繼續交流, 這也是參加這個課程的意義吧!

Excerpt 9:

資料編號	時間	發言者	標題	內容
P2439	2002/04/21 07:54 AM	Ms 黃	Re: Re: 專題研習	曾嘗試以小組形式進行,小組定時匯報其研習過程,而分數比例着重在分享內容(蒐集能力.協作能力.溝通能力)再加上學生同組互評及家長自評分,至於最後繳交的結果只佔少部分分數
P2448	2002/04/22 09:24 AM	Mr 鄧 (學科主任)	Re: Re: Re: 專題研習	這也是好方法。 你在做分享內容分數時, 是由教師直接評分還是由同學互評呢?
P2450	2002/04/22 04:45 PM	Ms 黃	Re: Re: Re: Re: 專題研習	我校也推行「專題研習」多年了，以往是由老師出題目，而題目大多數是以常識科有關的，……

Excerpt 10:

資料編號	時間	發言者	標題	內容
P031	2002/07/23 10:16	Ms 吳	Re: Re: Re: Re: Re: 發展課程	我很同意老師是課程的主要部分，或許我們活在正在課改的當兒，沒有一定的課程準則，若老師能在課堂灌進 3C 原素，多與學生透過課程溝通、引導學會學習，亦可打破

				傳統課堂的柜柜。
P034	2002/07/24 01:16	Mr 劉 (導師)	Re: Re: Re: Re: Re: Re: 發展課程	甚麼是 3C 原素?
P035	2002/07/24 01:45	Mr 孫	Re: Re: Re: Re: Re: Re: Re: 發展課程	Creativity, Critical thinking, Communication
P036	2002/07/24 04:41PM	Ms 劉	Re: Re: Re: Re: Re: Re: 發展課程	Mr Lau, Thanks a lot! I think 3C means Critical thinking, Communication and Creativity.Is that right?
P037	2002/07/24 06:26	Mr 溫 (導師)	Re: Re: Re: Re: Re: Re: Re: Re:發展課程	相當有趣, 我想知道 3C 出自何處? 例如學者, 研討會, 指引等等.
P038	2002/07/24 10:00	Ms 陳	Re: Re: Re: Re: Re: Re: Re: Re:Re: 發展課程	不單止 3 個 C <是 4C,包括 Critical thinking, Communication ,Creativity AND COLLABORATION SKILL<可見於<學會學習----課程發展路向>提及的共同能力>GENERIC SKILL

Excerpt 11:

資料編號	時間	發言者	標題	內容
P101	2002/08/06 11:20AM	Mr 曹 (導師)	角色與責任	……請大家討論一下 PSMCD 的職責及工作內容(教署指示以外的).
P102	2002/08/06 03:02PM	Mr 鄧 (學科主任)	Re: 角色與責任	或許是你們每一位怎樣理解你的自己的工作重點。
P105	2002/08/06 09:48	Mr 溫 (導師)	Re: Re: 角色與責任	也許可以分兩個層次去想想. 第一, "教師"在課程規劃/課程發展上擔當甚麼角色? 第二, "課程統籌主任"在課程規劃/課程發展上擔當甚麼角色? 以上二者異同如何? 我相信在不同的學校 context, 會有不同的答案.

Excerpt 12:

資料編號	時間	發言者	標題	內容
P090	2002/08/04 12:54PM	Ms 梁	課改的指南針？！	…… 課程發展路向一書,令我如獲課程發展的指南針， 便將書中重點，加上個人的理

				解，用概念圖表現出來，其後從發佈的基礎課程指引獲得更多資料，再作修改(見附件)。希望透過這圖，首先從課程領導層，進而全校老師分析學校特點、長弱項和需要……
P092	2002/08/05 01:53AM	Mr 劉 (導師)	Re: 課改的指南針？！	你可否以你理解有關課改的多點指南針寫下來?
P093	2002/08/05 03:58PM	Ms 梁	Re: Re: 課改的指南針？！	指南針的作用是指出方向。課改的方向是希望籍指南針找出有效教導學生的方法和策略。現在我正忙於整理大量有關資料，不會花太多時間作討論，不過希望籍指南針的話題引發大家多提意見，減少摸索的困難。Sorry and thanks
P094	2002/08/05 04:10	Ms 梁	Re: Re: Re: 課改的指南針？！	Sorry, 開啓 ppt 附件有問題，難怪劉錦民導師不清楚我說的指 南 針是什麼。現再 e-mail 一次，看效果如何。
P095	2002/08/05 04:15	Ms 梁	Re: Re: Re: Re: 課改的指南針？！	Sorry, 開啓 ppt 附件仍有問題。 再 e-mail 一次。
P096	2002/08/05 04:19	Ms 梁	Re: Re: Re: Re: Re: 課改的指南針？！	再 e-mail 一次仍失敗。 是否 ppt 不能 support ?

Excerpt 13:

資料編號	時間	發言者	標題	內容
P2273	2002/03/12 06:26 PM	Ms 梁	Re: Re: Re: 面對教育改革	教改是一個很大的理想,但要全速實行並非易事,其實時間性很重要'步伐越慢,可能不見成效,太快,又消化不來,要有一個中庸之道才可,但談何容易呢? 對嗎?

Excerpt 14:

資料編號	時間	發言者	標題	內容
P057	2002/07/29 08:59	Mr 伍	Re: Re: 第一題	本校情況與貴校相似，學校課改所涉及的範疇很多，校方的政策是寧濫無缺，人有我有。然而校本課改的目標爲何？各學習領域雖各自發展，百花齊放，但欠缺統整和彼此配合。歸根究底，教師爲課改而課改，疲於奔命，徒具形式，卻很少時間大家坐下來、停一停，檢視現狀與方向。

P065	2002/07/30 02:43	Mr 鄧 (學科主任)	Re: Re: Re: 第一題	你希望老師們座下來談些什麼?

Excerpt 15:

資料編號	時間	發言者	標題	內容
P121	2002/08/09 11:01	Mr 鄧 (學科主任)	Re: Re: Re: Re: Re: Re: Re: 角色與責任	也可以說是工作範圍由別人(外在的專家或行政人員)來定，統籌主任只是執行，還是工作由自己按學校情況和學生需要來定? 同理，教師要別人指示課程是什麼，還是教師自己按需要來定出課程? 也是同理，學生要教師事事告訴他們怎樣做，還是他們應漸漸可參與一個成年人的社群而續步承擔做決定的責任? ……
P122	2002/08/09 10:29PM	Mr 劉 (導師)	Re: Re: Re: Re: Re: Re: Re: Re: 角色與責任	……鄧生的意思是否鼓勵學生參與學校學習社群的一切活動，包括：選取內容、如何學習、建立學習環境或學習文化等?

Excerpt 16:

資料編號	時間	發言者	標題	內容
P2099	2002/03/03 08:04 PM	Mr 劉 (導師)	Re: Re: 你好！	不同((用))客氣。大家一起探討。你對課程改革有甚麼看法呢? 不妨提出來一起談談。
P2100	2002/03/03 08:05 PM	Mr 劉 (導師)	Re: Re: 你好！	不同((用))客氣。大家一起探討。你對課程改革有甚麼看法呢? 不妨提出來一起談談。

Excerpt 17:

資料編號	時間	發言者	標題	內容
P019	2002/07/23 01:17PM	Ms 陳	Re:Re:Re: 發展課程	((中文字全部顯示爲亂碼。轉換編碼後文字如下))……他們需要採取主動的態度，要了解課程，將理念在課程中實踐，因此教師的經驗是影響課程組織的因素。
P023	2002/07/23 03:09PM	Ms 陳	Re:Re:Re:Re:Re: 發展課程	……他們需要採取主動的態度，要了解課程，將理念在課程中實踐，因此教師的經驗是課程的部分。

Excerpt 18:

資料編號	時間	發言者	標題	內容
P191	2002/09/03 12:25AM	Ms 鄧	香港學科測驗	近日有同工及校長在研討會上提及本學年(2002-03)的香港學科測驗將會取消小一、小二、小四及小六的測驗，只保留小三及小五的測驗，不知各導師或同工可有聽聞或看過教署的通告？

Excerpt 19/35:

資料編號	時間	發言者	標題	內容
P511	2003/01/29 07:05 PM	Ms 陳	Re: 同儕觀課	我校也於三年前進行同儕觀摩公開課,利用每兩星期一次, 學生放下午, 教師留校進行……
P521	2003/01/30 09:09 AM	Mr 鄧（學科主任）	Re: Re: 同儕觀課	學生放學了, 怎樣觀課??
P528	2003/01/30 11:29 AM	Ms 何	Re: Re:Re: 同儕觀課	We always capture different kinds of classroom activities by video and observe, discuss, laugh & enjoy together. Our principal also accept video's capture as a formal appraisal.

Excerpt 20:

資料編號	時間	發言者	標題	內容
P601	2003/02/03 2:31 AM	Mr 鄧（學科主任）	共同備課紀錄	除非學校教師轉職的人多, 不然教師的記憶(特別是經過反思的智慧), 便已是足夠「對下學年度教授同一課程時」參考之用。
P694	2003/02/04 11:54 PM	Ms 黃	Re: 共同備課紀錄	我不同意單憑一些記憶而行事, 這樣太沒有系統了,試問誰人會敢說自己會清楚記得去年某月某日發生過甚麼事,況且有紀錄可幫助一些新入行的同事,亦可隨時修正,提高效率.

Excerpt 21:

資料編號	時間	發言者	標題	內容
P701	2003/02/05 12:30 AM	Ms 李	Re: Re: Re: Re: 集體備課之效能提升方法??	在課後反思中，課程發展主任可以是一位協調者，幫助同事們分析問題、解決難題、提供有效的策略或辦法…..
P713	2003/02/05 10:30 AM	Mr 鄧（學科主任）	Re: Re: Re: Re: Re: 集體備課之效能提升方法??	會不會是「和同事一起去嘗試解決難題, 使他們能建立一套有效的策略和辦法」更合宜?

Excerpt 22:

資料編號	時間	發言者	標題	內容
P206	2002/09/09 08:18	Ms 張	Re: Re: Re: Re: Re: Re: Re: 課程變革之教科書角色	……在我們的專題研習及課程統整還未成熟的時候，教科書可作爲學校與家長之間的溝通。
P207	2002/09/09 10:17PM	Mr 劉 (導師)	Re: Re: Re: Re: Re: Re: Re: Re: 課程變革之教科書角色	……我不明白教科書是溝通的橋樑，可否請你加以說明，謝謝！

Excerpt 23:

資料編號	時間	發言者	標題	內容
P233	2002/09/21 12:37PM	Ms 鄧	Re: Re: Re: Re: Re: 如何讓校內老師認識專題研習	……附件是一些與專題研習相關的網址，可以用作教師專業發展的參考。
P234	2002/09/21 12:51	Mr 劉 (導師)	Re: Re: Re: Re: Re: Re: 如何讓校內老師認識專題研習	對不起，找不到附件，有勞。

Excerpt 24:

資料編號	時間	發言者	標題	內容
P168	2002/08/25 10:12	Ms 陳	請問梁麗嬋------ 專題研習之先決條件	知道貴校由 P.1 實踐專題設計開始,但你本認爲專題設計應在幾年級開始,以我理解你是認爲在四年級開始,我說得對嗎?

Excerpt 25:

資料編號	時間	發言者	標題	內容
P2656	2002/05/29 01:41 PM	Mr 陳 (導師)	Re: Re: 甚麼是五種基要的學習經歷?	在 ET300C 指定讀物頁亦可找到補充資料
P2671	2002/05/31 09:49 PM	Mr 陳 (導師)	Re: Re: Re: 甚麼是五種基要的學習經歷?	抱歉沒有打頁數, 應是頁83

Excerpt 26:

資料編號	時間	發言者	標題	內容
P380	2003/01/08 05:03 PM	Mr 劉 (導師)	單元六 - t & F test	各位學員: 單元六主題爲行動研究,當中涉及量性評量。大家可能有接觸到t & F test。 對這兩個測量存有疑問罷！可以參看指定讀物6.5 及6.6 有簡單介紹，也容易閱讀及理解。 大家不礙看看。
P381	2003/01/08 5:19 PM	Mr 劉 (導師)	Re: 單元六 - t & F test	對不起手文之誤，最後一段應是「大家不妨看看」。

Excerpt 27:

資料編號	時間	發言者	標題	內容
P163	2002/08/23 08:26PM	Mr 溫 (導師)	Re: Re: Re: Re: 專題研習之先決條件	可能須改變固有的做法, 才可解決"匯報"的問題. 這就是將成績表分爲兩部分,…… 補充一下, 進展性評估是可以在學習過程中不斷給學生和教師回饋資訊, 不應只在期終作匯報, 或限於在成績表中匯報.

Excerpt 28:

資料編號	時間	發言者	標題	內容
P173	2002/08/28 09:03PM	Ms 梁	Re: Re: Re: Re: Re: 請問梁麗嬋------ 專題研習之先決條件	……專題習研的作用是讓學生更深入的學習一個課題，較多自發學習的機會和學習運用共通能力的較佳方法。
P174	2002/08/28 09:26PM	Ms 梁	Re: Re: Re: Re: Re:Re:請問梁麗嬋	補充：本校是屋邨學校，針對學生的特點會給與較多的輔助，目前許多學校都有不同做

			------ 專題研習之先決條件	專題研習的方法。 剛看到一個很有用的網址，不妨看看： http://resources.ed.gov.hk/project_work/main.htm

Excerpt 29:

資料編號	時間	發言者	標題	內容
P284	2002/10/13 06:37	Mr 梁	共同備課的好處	共同備課有甚麼好處？ 其中一個數學科的老師說：「本少利大！」……
P287	2002/10/14 09:49	Mr 溫 (導師)	Re: Re: 共同備課的好處	在此作兩點補充: 共同備課的 facilitator 可由校長, 科主任, PSM(CD)擔任, 但又不限於由擔任實質職務的人員出任 facilitator……

Excerpt 30:

資料編號	時間	發言者	標題	內容
P031	2002/07/23 10:16	Ms 吳	Re: 發展課程	我很同意老師是課程的主要部分，或許我們活在正在課改的當兒，沒有一定的課程準則，若老師能在課堂灌進 3C 原素，多與學生透過課程溝通、引導學會學習，亦可打破傳統課堂的柜柜。
P039	2002/07/25 01:53AM	Mr 劉 (導師)	Re: Re: Re: Re: Re: Re: Re: 發展課程	……我想了解: 究境這定論 [沒有一定課程準則] 是否真確呢?
P040	2002/07/25 02:02	Mr 劉 (導師)	Re: Re: Re: Re: Re: Re: Re:Re:發展課程	我忘了這定論是 7 月 23 日一篇意見.

Excerpt 31:

資料編號	時間	發言者	標題	內容
P2507	2002/05/08 09:08 AM	Mr 鄧 (學科主任)	Re: Re: Re: Re: Re: Re: Re: 學習即參與	其實, 不用工作紙也可以由參觀博物館中學習。……
P2519	2002/05/10 01:38 PM	Mr 宗	Re: Re: Re: Re: Re: Re: Re: Re: Re: 學習即參與	「參觀學習」可否歸納爲學習即參與的一種？
P2520	2002/05/10	Mr 張	Re: Re: Re: Re: Re:	本人覺得「參觀學習」可歸納爲學習即參與

	01:51 PM		Re: Re: Re: Re: Re: 學習即參與	的一種。 在課本上學會了知識，跟著參觀實在的真實環境，學生能鞏固知識。……

Excerpt 32:

資料編號	時間	發言者	標題	內容
P2733	2002/06/06 07:44 PM	Ms 葉	Re: Re: 以其他形式代替默書形式	((中文字全部變成了怪碼))
P2734	2002/06/06 07:50 PM	Ms 葉	Re: Re: 以其他形式代替默書形式	不知爲何字都變了形，煩請各位按檢視，再按編碼,再按自動選取便可看到上文·謝謝！

Excerpt 33:

資料編號	時間	發言者	標題	內容
P233	2002/09/21 12:37PM	Ms 鄧	Re: Re: Re: Re: Re: 如何讓校內老師認識專題研習	……附件是一些與專題研習相關的網址，可以用作教師專業發展的參考。
P234	2002/09/21 12:51	Mr 劉 (導師)	Re: Re: Re: Re: Re: Re: 如何讓校內老師認識專題研習	對不起，找不到附件，有勞。
P237	2002/09/25 11:44PM	Ms 鄧	Re: Re: Re: Re: Re: Re: Re: Re: 如何讓校內老師認識專題研習	劉導師： 附件在第一位學員發表文字的最底下。我會再附上一次。……

Excerpt 34:

資料編號	時間	發言者	標題	內容
P044	2002/07/25 10:17PM	Mr 溫 (導師)	Re: Re: Re: Re: Re: Re: Re: Re: Re: Re: 發展課程	那麼教師又可以怎樣去掌握這 4C 呢? 尤其是 creativity, 很多教師都會摸不著頭腦. 畢竟這是思維方面的訓練, 在教師自己的成長過程中可能也欠缺了 creativity 的訓練, 他們又如何去教學生 be creative 呢?
P045	2002/07/27 12:07AM	Mr 劉 (導師)	Re: Re: Re: Re: Re: Re: Re: Re: Re: Re:Re:發展課程	……創造力是不用教的.任何一位學生或教師 都有創造力,只是環境是否融納得而矣! 對教師而言,要爲學生安排一位環境,可以讓學生建立自信,被接納,……你同意嗎?

P047	2002/07/27 07:00AM	Mr 溫 (導師)	Re: Re: Re: Re: Re: Re: Re: Re: Re: Re: Re:Re:Re:發展課程	十分同意你的見解. 尤其是"對教師而言, 要爲學生安排一位(個)環境, 可以讓學生建立自信, 被接納, 被欣賞",……創造力大概要教也教不來的. 也許以"培養"或"培育"一詞會比較貼切.……我的提問的重點就是, 培育創造力總有一些 technique 吧. ……

Excerpt 36:

資料編號	時間	發言者	標題	內容
P2538	2002/05/12 10:46 PM	Mr 容 (導師)	一份「辛職」	聽說部份學校放棄申請課程發展主任配額，原因是沒有老師「夠胆量」申請這份「辛職」，這真是一個頗怪現象，有人無工做，有工無人做，不知大家有何意見？
P2540	2002/05/12 10:57 PM	Mr 李	Re: 一份「辛職」	這也並不奇怪，「辛職」是一份要全校老師多做一點的工作……

Excerpt 37:

資料編號	時間	發言者	標題	內容
P149	2002/08/16 08:23PM	Mr 溫 (導師)	Re: Re: 如何起步-吃牛的啓示	……要是不能一下子把已分砌的牛吃罷, 那麼就把部分牛肉先來個"急凍", 待日後再吃. 換言之, 先吃容易烹調或已熟知如何烹調的部分.

Excerpt 38:

資料編號	時間	發言者	標題	內容
P781	2003/02/07 02:06 PM	Mr 鄧（學科主任）	Re:Re:Re: Re:Re:Re: Re:Re:Re: 課程統籌主任工作有感	……可能PSMCD重要的不是有多少個角色, 每項工作的表現如何, 而是怎樣可以讓學校的學生學得更好。簡而言之, 角色可以很多, 也可以不斷變化, 但目的卻只得一個, 也是持定的。

Excerpt 39:

資料編號	時間	發言者	標題	內容
P222	2002/09/15 06:01PM	Mr 伍	Re: Re: 如何讓校內老師認識專題研習	有關專題研習，本校已實行了三年，有一些經驗願意跟你分享：…… 本人認爲，要發展專題研習，教師的培訓是必須的，同時，要勇於嘗試，慢慢修正教學摸式和技巧。
P223	2002/09/16 08:55PM	Mr 劉 (導師)	Re: Re: Re: 如何讓校內老師認識專題研習	換言之，你都會同意「瞎子摸象」和「海軍與水兵」的階段，是一個經歷，也爲後期的工作鋪路。……

Excerpt 40:

資料編號	時間	發言者	標題	內容
P532	2003/01/30 12:26 PM	Ms 何	課程統整	……今年，課程統整計劃推展至二、三年級，同事在統整的形式上給予了不少意見。 最後，我們決定以平行學科的模式進行，推行時間則改在下學期開始的首三週。……
P533	2003/01/30 12:34 PM	Ms 梁	Re:課程統整	你所說的平行模式，是否保留原有的時間表，即是說學生依時間表上課，但每科均會教授與主題有關的內容呢？
P535	2003/01/30 01:07 PM	Ms 何	Re: (2)課程統整	對，就是這模式。

Excerpt 41:

資料編號	時間	發言者	標題	內容
P363	2003/01/02 9:22 PM	Ms 林	Re: Re: 課程行動研究	陳老師；教育行動研究本義在於反思教學，對於我而言，只要不時回過頭來審視自己的教學，從反思中得到下次該如何行動的原則，這就是最簡單的「行動研究」了。……對嗎
P366	2003/01/03 6:14 PM	Ms 張	Re: Re: Re: 課程行動研究	林老師：我非常同意你的見解，行動研究是一個很好的途徑讓教師進行反思。就現階段而言，對於大部分的老師而言，這好像還是皮頗爲陌生，所以應先讓老師嘗試感受什麼是「行動研究」，而規模可以是盡量小型及與

				他/她們有設身關係的。就我個人而言，其實共同備課及觀課已是一種行動研究的模式。不知道我的理解有沒有不對的地方？
P367	2003/01/03 10:38 PM	Ms 黎	Re: Re: Re: Re: 課程行動研究	張老師:你的理解沒有錯,共同備課及觀課都是利動研究之一,……

Excerpt 42:

資料編號	時間	發言者	標題	內容
P784	2003/02/07 06:18 PM	Ms 王	課程改革與社會因素	謝謝蔡同學的意見，這令我對推行普通話教學，有了一點信心。
P785	2003/02/07 06:21 PM	Ms 王	課程改革與社會因素	謝謝蔡同學的分享。這令我對推行普通話教學,增添了不少信心。

Excerpt 43:

資料編號	時間	發言者	標題	內容
P328	2002/12/05 08:39AM	Ms 羅	Re:Re:Re:Re:Re:Re:指定讀物 4.2	設 PSMCD 一職是對課改的決心，訊息是邀請抱觀望態度的教師接納課改。 我十分同意。 然而校長的贊同和支持才是課改能否成功的主要因素。 使校長對 PSMCD 的任務更清楚了解，則是教署必需加一把勁的事，否則會功虧一饋。 課改是我
P329	2002/12/05 08:41	Ms 羅	Re:Re:Re:Re:Re:Re:Re:指定讀物 4.2	設 PSMCD 一職是對課改的決心，訊息是邀請抱觀望態度的教師接納課改。 我十分同意。 然而校長的贊同和支持才是課改能否成功的主要因素。 使校長對 PSMCD 的任務更清楚了解，則是教署必需加一把勁的事，否則會功虧一饋。
P330	2002/12/05 08:51	Ms 羅	Re:Re:Re:Re:Re:Re:Re:Re: 指定讀物 4.2	修正： 設 PSMCD 一職是對課改的決心，訊息是邀請抱觀望態度的教師接納課改。 我十分同意。 然而校長的贊同和支持才是課改能否成功的主要因素。 使校長對 PSMCD 的任務更清楚了解，則是教署必需加一把勁的事，否則會功虧一簣。

Excerpt 44:

資料編號	時間	發言者	標題	內容
P1425	2003/01/03 02:01 PM	Ms 李		題目：對《教師對〈小學課程指引〉的見解究摘要》的意見 根據研究的報告，第 22 及 23 題出現的情況，極可能是老師忽略了……
P1426	2003/01/03 02:57 PM	Ms 李	對《教師對〈小學課程指引〉的見解究摘要》的意見	根據研究的報告，第 22 及 23 題出現的情況，極可能是老師忽略了……