A CASE STUDY OF TEACHERS' CODESWITCHING BEHAVIOURS IN MAINLAND CHINA'S UNIVERSITY EFL CLASSROOMS AND STUDENTS' REACTIONS TO THE CODESWITCHING

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ABSTRACT

This study explores the oral interaction between teachers and their students in university English as a foreign language classrooms in Mainland China with particular focus on teachers' codeswitching behaviours and students' reactions to these behaviours. Codeswitching in foreign or second language classrooms has been the subject of a great deal of research interest from the applied linguistics community in recent years, but patterns of codeswitching in "broadly communicative" classrooms have rarely been studied in great detail nor have students' strategic reactions to codeswitching been directly elicited from learners as a means of gauging the impact of teacher codeswitching. Moreover, there is a clear need to situate the debate about teacher codeswitching in a more rigorous theoretical framework.

A case study approach best suited the aims of this research and two teachers were selected in an initial phase (Phase 1) of the study because they conformed to a number of pedagogical and interaction-related criteria.

In the main phase of the study data were elicited through a combination of systematic observation, stimulated recalls and teacher interviews. The codeswitching patterns of the two teachers were analysed both quantitatively and qualitatively. However, much greater emphasis is placed on the qualitative analysis of the codeswitching and students' reactions towards it.

The findings show that the amount of codeswitching was relatively low but varied considerably by lesson. Most codeswitching was for medium-oriented lexical explanations. Students' reactions to their teachers' codeswitching varied by individual not by groups. The findings suggest an interesting pattern of variance between the two teachers in terms of their codeswitching behaviours and enrich our understanding of codeswitching in L2 classrooms and provide hypotheses that could be tested with larger samples. The findings also contribute to an understanding of the functions and consequences of codeswitching from the learners' perspective, which may contribute towards major advances in the field and have direct pedagogical implications.

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TABLE OF CONTENTS

Abstract

Acknowledgements

List of Tables and Figures

List of Appendices

Abbreviations

Chapter One: Rationale 1

1.1 Rationale 2

1.2 Context of the study..... 4

1.2.1 University English as a foreign language in Mainland China.....4

1.2.2 Communicative language teaching in Mainland China.....6

1.2.3. The Ministry of Education guidelines on codeswitching in Mainland China..... 8

1.2.4 Codeswitching studies in L2 classrooms in Mainland China 9

1.3 Aims of the study..... 10

1.4 The structure of the thesis..... 12

Chapter Two: Literature Review 15

2.1 Defining codeswitching 16

2.1.1 Defining codeswitching in the naturalistic setting 16

2.1.2 Sociolinguistic approaches to codeswitching.....18

2.1.3 Structural approaches to codeswitching.....20

2.1.4 The psycholinguistic approach to codeswitching.....25

2.1.5 L2 classroom codeswitching. 27

2.1.6 Medium and message functions of classroom codeswitching 29

Summary of 2.1..... 31

2.2 The L1 and L2 debate 31

2.2.1 Excluding L1 32

2.2.2 Including L1 34

2.2.3 The neutral view of L1..... 35

2.2.4 Theoretical premises for the debates 37

2.2.4.1 Arguments based on L1 and L2 comparison.....38

2.2.4.2 Arguments based on language compartmentalization 39
2.2.4.3 Arguments based on input theory 40
Summary of 2.2 41
2.3 Theories of codeswitching in L2 learning 42
2.3.1 Cognitive theory of codeswitching 42
2.3.2 Socio-cultural theory of codeswitching 45
2.3.3 Naturalistic codeswitching theory 48
Summary of 2.3 51
2.4 Quantity of L1 and L2 use 51
2.4.1 Studies based on sign sampling 53
2.4.2 Studies based on category sampling 58
Summary of 2.4 66
2.5 Functions of teacher codeswitching in L2 classrooms 66
Summary of 2.5 71
2.6 Teachers' beliefs about codeswitching in L2 classrooms 72
2.6.1 Reasons for, and purposes of, teachers' codeswitching 72
2.6.2 Factors related to teachers' use of codeswitching 75
2.6.3 Teachers' attitudes towards the use of L1 77
Summary of 2.6 79
2.7 Teachers' codeswitching from learners' perspective 79
Summary of 2.7 84
2.8 Learner strategies 85
2.8.1 How are strategies defined 86
2.8.2 Claims made in strategy research 87
2.8.3 Problems with definitions, lists, and categories (Macaro 2006) 89
2.8.4 Revising the theoretical framework on LLS 91
Summary of 2.8 94
Chapter Summary 95
Chapter Three: Methodology 97
3.1 Introduction to second language classroom research and its methods ...98
3.1.1 The foci of second language classroom research 98
3.1.2 Research methods in second language classroom research 99
3.1.3 Case studies research 102

3.1.4 Discourse analysis 111
3.1.5 Systematic classroom observation 115
3.2. Design of the study 119
3.2.1 Research questions 119
3.2.2 Research population 120
3.2.3 Sampling 123
3.2.3.1 The selection of two universities 125
3.2.3.2 The selection of two teachers 126
3.2.3.3 The participating students 128
3.2.4 Access 131
3.3 Description of Phase 1 132
3.3.1 Data collection tools 132
3.3.1.1 Video-assisted classroom observation 133
3.3.1.2 Communicative Orientation of Language Teaching observation scheme (COLT) 134
3.3.1.3 Stimulated recall in Phase 1 137
3.3.1.4 Semi-structured interviews. 140
3.3.2 Procedures for Phase 1 141
3.3.2.1 Preparation, access and selection 141
3.3.2.2 On the day of observation 143
3.3.2.3 Procedure for stimulated recall in Phase 1 144
3.3.2.4 Procedure for conducting the semi-structured interviews 147
3.4 Description of Phase 2 149
3.4.1 Data collection tools 149
3.4.1.1 Video assisted classroom observation 149
3.4.1.2 Stimulated Recall 152
3.4.2 Procedures for Phase 2 study 155
3.4.2.1 Procedures for video assisted classroom observation 155
3.4.2.2 Procedure for Stimulated Recall 157
3.4.3 Collection of data of Teacher Estimation of their Students' Lexical Knowledge (TESLK) 160
3.5 Description of the data analysis 163
3.5.1 COLT analysis 163

3.5.2 Timed analysis of video recordings 164
3.5.3 Function (discourse) Analysis of codeswitching bounded by L2 168
3.5.3.1 Transcribing the codeswitching episodes 170
3.5.3.2 Coding the transcribed segments of codeswitching 170
3.5.3.3 Discourse analysis of codeswitching episodes 172
3.5.4 Qualitative analysis of stimulated recall data 173
3.5.4.1 Analysis techniques 173
3.5.4.2 Coding 174
3.5.4.3 Comparing two teaching groups 176
3.5.5 Issues of translation 177
3.6 Ethical considerations 177
3.6.1 Informed consent and the minimisation of harm 178
3.6.2 Confidentiality 180
Chapter Summary 181
Chapter Four: Results from Phase 1 of the Study 182
4.1 Results from lesson observations 183
4.1.1 The results of timed sampling 183
4.1.2 The results of the COLT analysis 185
Summary of 4.1 190
4.2 The results of teachers' interviews 191
4.2.1 Question category one 191
4.2.2 Question category two 193
4.2.3 Question category three 194
4.2.4 Question category four 196
4.2.5 Question category five 197
4.2.6 Question category six 197
4.2.7 Question category seven 198
4.2.8 Question category eight 199
Summary of 4.2 199
Chapter Summary 200
Chapter Five: Results from Phase 2 of the Study 202
5.1 Result from timed analysis of teacher L1 use 203
5.1.1 The amount of Teacher L1 use 204

5.1.2 Teacher L1 use and Students talk 205
5.1.3 Teacher 1: Cindy 208
5.1.4 Teacher 2: John 209
Summary of 5.1 210
5.2 Linguistic analyses 211
5.2.1 Quantity of codeswitching 211
5.2.1.1 Quantity of codeswitching across teachers and lessons 212
5.2.1.2 Quantity of codeswitching by type 214
5.2.1.3 Quantity of codeswitching by orientation 215
5.2.1.4 Quantity of codeswitching by function 216
5.2.2 The length of codeswitching 217
5.2.2.1 Mean length of codeswitching across teacher groups and lessons 219
5.2.2.2 Mean length of codeswitching by codeswitching type 220
5.2.2.3 Mean length of codeswitching by codeswitching orientation 221
5.2.2.4 Mean length of codeswitching by codeswitching function 222
Summary of 5.2 222
Chapter Summary 223
Chapter Six: Codeswitching Findings from Functional Analysis 225
6.1 Medium-oriented codeswitching 227
6.1.1 Translation L2 to L1 227
6.1.1.1 Codeswitch after the target term 229
6.1.1.2 Codeswitch after the 'Repeat' option of the target term 231
6.1.1.3 Codeswitch after the 'Paraphrase' option of the target term 233
6.1.1.4 Codeswitch after the 'Elicit in L2' of the target term 238
Summary of 6.1.1 242
6.1.2 Translation L1 to L2 243
6.1.3 Teacher Echo in L1 248
6.1.4 Correcting the L1 250
6.1.5 Grammar teaching 251
6.2 Eliciting and Repairing 253
6.2.1 Eliciting 253
6.2.2 Repairing 257
6.3 Message-oriented codeswitching 260

6.3.1 Information giving 260
6.3.1.1 Outside plane shift 261
6.3.1.2 Inside Plane Shift 263
6.3.1.3 Evaluative feedback 266
6.3.1.4 Reprimand (1:30) 268
6.3.1.5 Focus on rapport 269
6.3.2 Instructions 271
6.3.3 Reprimand 273
Chapter Summary 275
Chapter Seven: Results of Students' Reactions 277
7.1 Attitudinal Reaction to codeswitching 279
7.1.1 Positive reactions to codeswitching 280
7.1.2 Negative reactions to codeswitching 286
Summary of 7.1 288
7.2 Strategic reactions to codeswitching 289
7.2.1 Accommodation 289
Summary of 7.2.1 296
7.2.2 Selective attention and processing 296
Summary of 7.2.2 316
7.2.3 Topic intensification reactions through schema activation 316
Summary of 7.2.3 323
7.2.4 Social cultural reactions 324
Summary of 7.2.4 326
Chapter Summary 327
Chapter Eight: Discussion 330
8.1 Patterns of codeswitching in L2 classrooms 331
8.2 To what extent is classroom codeswitching in the present study similar to a naturalistic environment? 344
8.3 Codeswitching as a strategy to reduce the cognitive load 346
8.4 Codeswitching and learner strategy development 349
Chapter Summary 350
Chapter Nine: Conclusion 352
9.1 Summary of the findings 353

9.2 Implications 356
9.3 Limitations of the study 358
9.4 Recommendations for further research 361

LIST OF TABLES AND FIGURES

Figure 1 A functional model of teacher codeswitching (Macaro 1998a).....30
Figure 2 A cognitive framework for learner strategies (Macaro 2006:326).92
Table 2 Factors influencing language choices (Grosjean 1982:136).....75
Table 3.1 Profile of three teacher participants at the phase 1 study.....128
Table 3.2 Student participation number 129
Table 4.1 Percentage of L1 by teacher in lessons in phase 1 study 184
Table 4.2 Measures of teacher talk in Phase 1 study.....184
Table 4.3 Classroom interaction participant organization (%).....186
Table 4.4 Lesson content: language (%) 187
Table 4.5 Lesson content: management (%).....187
Table 4.6 Lesson content: other topics (%) 188
Table 4.7 Lesson content control (%).....188
Table 4.8 Student modality (%)..... 189
Table 4.9 Source of teaching materials (%) (1) 190
Table 4.10 Source of teaching materials (%) (2) 190
Table 5.1 Percentage of TL1 and SL1.....205
Table 5.2 Number of CS in the corpus lessons by two teachers.....212
Table 5.3 Distribution of inter-sentential CS and inter-sentential CS.....215
Table 5.4 Distribution of medium- and message-oriented CS.....215
Table 5.5 Distribution of CS functions.....217
Table 5.6 Mean length of CS in two teacher groups and their lessons 219
Table 5.7 Mean Length of CS in Chinese characters by CS type.....221
Table 5.8 Mean Length of CS in Chinese characters by orientation.....221
Table 5.9 Mean length of CS in Chinese characters by function.....222
Table 7.1 Student respondents' positive reactions toward CS.....281
Table 7.2 Student respondents' negative attitudes toward CS.....287
Table 7.3 Profile of CS episodes producing the reaction of 'accommodation' 291
Table 7.4 Profile of CS episodes producing the reaction of 'selective attention and processing'..... 298

Table 7.5 Profile of those CS which produce the reaction of ' topic intensification through schema activation' 318

LIST OF APPENDICES

Appendix 3.1 A sample of COLT scheme coding

Appendix 3.2 Teacher Interview Questions

Appendix 3.3 The transcript sample of one of Mark's lessons

Appendix 3.4 Guidelines for conducting stimulated recall sessions

Appendix 3.5 Worksheet for taking notes during lesson observation

Appendix 3.6 An overview of video recorded lessons for analysis in phase 2 of the study

Appendix 3.7 TESLK data collection sheet

Appendix 3.8 Codeswitching Coding system (Macaro 1998: 138-140)

Appendix 3.9 Coding sheet based on 5 second sampling used in both phase 1 and 2 of the study

Appendix 3.10 Transcription conventions

Appendix 4.1 Cindy's interview transcript

Appendix 4.2 John's interview transcript

Appendix 5 Correlation data for phase 2 study

Appendix 7 TESLK results

ABBREVIATIONS

CLT---Communicative language teaching

DES---Department of education and science

EFL---English as a foreign language

ELT---English language teaching

FL---Foreign language

L2---Foreign language or second language

L1---Native language or mother tongue

MOE---Ministry of education

MT---Mother tongue

SED---State educational development committee

SLA---Second language acquisition

SLCR---Second language classroom research

SL1---Student use of L1

SL2---Student use of L2

SR---Stimulated recall

TESLK---Teacher's estimation of student lexical knowledge

TL---Target language

TL1---Teacher use of L1

TL2---Teacher use of L2

Chapter One: Rationale

Introduction

This chapter outlines the rationale and aim of the research, and provides a context for situating the study in terms of both personal interest and professional need. It also summarizes the content of each chapter.

1.1 Rationale

I have long been interested in how bilinguals and multilinguals make use of their language resources. For example, when I was a child I noticed that my father would switch from Mandarin (or Putonghua), the language he used with us daily, to a He Bei dialect [1]when he was talking to my grandparents. Why did he do that, to express intimacy, respect or for some other reason? Later, my curiosity about the simultaneous use of two or more languages intensified as I experienced my former secondary school English teachers using Chinese to explain English. I sometimes wondered what would happen to the class and to me if the teacher used English all the time without uttering one single word of Chinese? Would the experience resemble that of being stranded on an island with a population who did not speak your native language? Even during my undergraduate study as an English major student, immersed in exclusively L2 classrooms, I would still hear occasional L1 words. Why was that?

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1. He Bei is a northern province of People's Republic of China surrounding Beijing. In general, the dialects of He Bei are quite similar to and readily intelligible with the Beijing dialect which forms the basis for Standard Mandarin, the official language of the nation. However, there are also some distinct differences, such as differences in the pronunciation and intonations.

These questions still lingered when working as an English teacher in a private language school in the northeastern part of Mainland China. Was I justified in using the mother tongue of any student in the classrooms for any reason? If so, how much should I use? What factors would prompt me to switch? Was the trigger to switch between English and Mandarin instinctive in some way or based upon a belief shaped by external influences? How did my students react to my codeswitching behaviour? Did they like it or hate it? Why was there no standard guideline from the external agencies at all levels regarding this? Why was there little empirical evidence that I could consult for much needed advice in this regard?

All of these questions dwelled deep within me until they were brought under the spotlight when I commenced my professional development courses in applied linguistics and second language acquisition in the UK. Drawing upon the input of my two years of postgraduate study and the present doctoral study on classroom codeswitching, I have come to realize that not only do I take the issue of codeswitching for granted, but also that it is indeed a contentious issue, despite increasing interest in investigating it. Furthermore, little is known about the optimal use of codeswitching in foreign or second language classroom. In other words, the understanding of the effects of teachers' codeswitching on students' learning is scarce.

Given this, there appears to be an incremental need for empirical studies to establish the pattern of codeswitching and to explore its impact on learning. Therefore, a study of teachers' codeswitching behavior in Chinese university

EFL classrooms would probably yield a number of fruitful outcomes:

- It may help fill the gap in empirical studies on this subject;
- It may contribute to a fuller understanding of the issue;
- It may help the teacher to make soundly informed decisions in their classroom teaching.

With these broader ideals in mind, I embarked upon my four-year journey of research into university teachers' classroom codeswitching in Mainland China, the specific objectives of which are detailed in Section 1.3 of this chapter. Before explaining them, it is necessary to look at the backdrop against which the current study was conducted.

1.2 Context of the study

1.2.1 University English as a foreign language in Mainland China

With regard to China's English language teaching (ELT) development in the past three decades, there would seem to be a consensus view that opportunities and challenges coexist (Wu 2001; Yu 2001; Hu 2003). This is also true in terms of EFL education at tertiary level in Mainland Chinese universities. In the last two decades, university English as a foreign language (EFL) teaching in Mainland China has undergone tremendous development due to the enormous expansion of students' enrollment (Cai 2005). University non-major students are obliged to take English as a compulsory

subject and to pass the College English Test (CET) before being awarded a degree. [2]In the mean time, the quality and qualifications of EFL teaching staff at the university level has also been enhanced considerably (Zhang et al 2003). Today, EFL teachers employed by universities need at least a master degree in a related field. A small number of people also return to Mainland China to teach in universities after having been educated in English-speaking western countries.

Despite such progress in university EFL teaching and learning, there still remain a number of problems and challenges. Wu (2001) seemed to raise more questions than she was able to answer with regard to the pressing need to address the issues that China's ELT is facing such as English language planning, teacher education, materials and assessment in order to improve the quality of ELT in China. This problematic situation with ELT in Mainland China is echoed in Hu (2003). He also identified some typical problems which plague ELT in China such as traditional teaching pedagogy, large class size, inadequate investment in teacher training, regional imbalance in student proficiency (urban and rural), and the washback effect [3] of the CET.

All these problems have led to the advent of the need for a new curriculum which give more emphasis to language communicative competence. In 2004, a new syllabus guiding EFL at the university level in Mainland China was issued, with the reform of CET ensuing in the same year which was partially

[2] At the time of the research, the situation is changing. Some of the famous institutions in mainland China have canceled this regulation.

[3] The washback effect is often referred to as the effect of testing on teaching and learning and it often contains a negative connotation.

the outcome of increasing media coverage of the nationwide debate on, and criticism of, the CET band 4 and band 6 exams. However, the reform of the CET was still considered a modest step forward; for example, changes include a new question format, an increase in listening content, and a new marking system. Issues remained unresolved such as oral examinations, which were still marginalized. Furthermore, guidelines or advice with regard to the use of L1 and L2 in EFL classroom have, unfortunately, remained absent.

1.2.2 Communicative language teaching in Mainland China

Communicative language teaching (CLT) is an innovation in English language teaching (ELT). It advocates the complete or partial replacement of the focus on form by the predominant use of meaningful and authentic language use in the L2 classroom. There may be two versions of CLT. The strong version advocates the extensive use of group and pair work as the dominant interaction pattern for classroom while teachers withdraw to be the facilitator. The weak version of CLT is that it has allowed teachers to incorporate motivating and purposeful communicative activities and principles into their teaching while simultaneously retaining the best elements of other methods and approaches rather than discarding them completely.

While CLT emerged as a new teaching approach in Britain in the 1970s, in the Chinese context, the success of its reception appears to be limited. As early as 1980s, experts like Li X (1984 cited in Yu 2001) began advocating the CLT approach. In 1992 the State Education Development Commission

(SEDC) in Mainland China called for the training of four skills and the use of English as the target language (TL) for communication. Later, Wang (1999) reported a five-year (1993-1998) project to compare the communicative approach and traditional analytical approach, and found both to have a number of weaknesses and strengths.

However fashionable it may be, the CLT approach has never taken a firmer root in the ELT profession in Mainland China and indeed, there may even be retrogression to the traditional analytical method. This view is echoed in Yu (2001), who also regarded genuine CLT to be virtually impossible in most L2 classrooms in Mainland China as it was constrained by a number of factors such as the low income of ELT teachers, sizable classes, the pervasive influence of Confucian ideas with regard to the role of teachers as imparters of knowledge rather than as more back-stage observers and facilitators. Above all, the most constraining factors appear to be the lack of well-qualified English teachers.

Given the present condition of CLT in Mainland China, it may be argued that at present, methodology is mixed. In a sense the methodology adopted by most EFL classrooms are broadly communicative, which may best represent the balance between emphasis on meaning and emphasis on form, between authentic communication and formal instruction. An eclectic method may be a more accurate description of the current state of China's ELT. Such a method accepts the best teaching techniques from other methods according to the actual situation. To be eclectic, teachers are required to use CLT as one

method while accepting elements of the traditional method. As Rao (1996) states, this is the best method to reconcile communicative approaches to the teaching of English with traditional Chinese methods.

1.2.3. The Ministry of Education guidelines on codeswitching in Mainland China

The issue of codeswitching in English language teaching (ELT) in Mainland China is deliberately neglected in the new syllabuses (2001, 2004) issued by the Ministry of Education (MOE) in Mainland China, as displayed by the shift from vague guidelines (see below) to a complete absence of any comments relating to the issue. This absence of official guidelines regarding the codeswitching issue has happened at both central and local level, except in the now obsolete guidelines for the secondary school and universities more than a decade ago, quoted here : "Try to use English (L2) as much as one can, with appropriate recourse to mother tongue." (MOE in Mainland China 1992:2, 1993:2).

By the same token, there are no policies at the school level regarding the issue of codeswitching (my own data source). Although universities do not have written guidelines, a tacit policy favours the immersion mode and strongly discourages the use of students' native language in the teaching of English. Thus, the use of Chinese in the teaching of English has not been a topic for discussion at the school level, it having been assumed that all teachers use only L2 in their classrooms.

The reasons for the lack of recognition of the codeswitching issue in policies at both national and local levels are not known. One possible interpretation points to the contentious nature of the issue and the lack of confidence in making informed pedagogical recommendations by the educational authorities at all levels. It is also conceivable that there is a fear that such teaching would not be able to sustain exclusive L2 use because of lack of competence on the part of teachers.

1.2.4 Codeswitching studies in L2 classrooms in Mainland China

In recent years, codeswitching in L2 classrooms has come into focus as an area of specific interest and investigation. Influenced by a worldwide trend, there has been increasing interest in examining codeswitching in L2 classrooms at all levels in Mainland China. However, studies based on empirical evidence are virtually non-existent. For example, a simple key word search in one of the biggest online academic data base to provide academic papers and journals in Mainland China will yield a good number of papers and articles on the topic of classroom codeswitching or L1/L2 use, though the overwhelming majority of them are not empirical studies. In other words, these papers and articles, normally published in Chinese language, offer speculative thoughts, arguments, reviews of others' findings and positions on the topic. There are nearly none of them which report or discuss the research methods employed.

In spite of this, effort was still made to look for relevant literature in order to help to situate the present study in the Mainland Chinese EFL context. During the fieldwork in 2005, I was able to browse those few core journals published in Mainland China such as *Foreign language teaching and research*（外语教学研究）; *Foreign language teaching* (外语教学); *Foreign languages* (外国语); *Modern foreign languages* (现代外语) in the library of one of the universities in which I was conducting my study. The search revealed only one empirical study, that of Liu and Jiang (2004), which was a suitable comparison for the current study. Between 2006 to the present time, I have been making continuous effort to search for relevant literature online and the scope was expanded to relevant academic journals published in English. One further study, found in the on-line English teaching forum, was reported, i.e. Tang (2002). Both studies adopted an empirical study design which employed one or more than one method of the following: classroom observation, questionnaire and interviews to collect data on the target codeswitching behaviour. Both were written in good quality English and published in credible journals. However, as we shall see in Chapter Two, none of them addressed the learners' perspective with regard to classroom teacher codeswitching which is pursued in the present study, which sought to explore an important research orientation, learners' cognitive reactions to, and/or strategies for, processing teachers' codeswitching.

1.3 Aims of the study

Studying the way in which learners react to their teacher's codeswitching

in Chapter Two, the use of L1 or the codeswitching phenomenon within the classroom has been a subject of considerable debate for quite some time. It is only recently that a group of researchers (e.g. Macaro, Turnbull, Levine) suggest a shift of focus from debating the legitimacy of codeswitching in the language classroom to working toward a complete set of pedagogical guidelines for utilising codeswitching in the language classroom informed by research evidence. Therefore, this study was conducted in response to the call made by Macaro (2001b), stating that "future research needs to establish some principles for codeswitching in foreign language (FL) classrooms by understanding its functions and consequences" (Macaro 2001b: 545). It is hoped that this study can fill the gap in the literature, thus enabling us to attain a greater understanding of the issue, and provide some valuable feedback hopefully to inform and guide the teaching practice, if possible.

1.4 The structure of the thesis

Chapter One raises the issue of codeswitching in university EFL classroom in Mainland China and outlines briefly how the researcher became increasingly interested in the topic. It also details the broad aims of the study, followed by an outline of the structure of the thesis.

Chapter Two starts by looking at codeswitching in naturalistic settings then thoroughly reviews the relevant arguments and empirical studies relating to L1/L2 distribution both from a theoretical and empirical perspective. An extensive review of empirical studies on codeswitching in second language

embedded in the input may bear a somewhat close resemblance to an investigation into learners' strategies for accessing meaning in reading and listening activities. While there is a wealth of theoretical and empirical literature dealing with the latter, there is virtually no published research on learners' strategies directed at teachers' codeswitching, which forms part of the input in most L2 classrooms around the world. The lack of research into students' perspective leaves the picture of the effect of classroom methodologies on learning incomplete, thus rendering it difficult to offer recommendations for methods and practice in second language pedagogy. This reality is warned of by O'Malley and Chamot (1990:129), in their underscoring of the efficacy of investigating students' strategies for learning. They argue:

> The exclusive focus on teacher behaviors fails to take into consideration deliberate learner strategies for comprehending language texts, for processing new information and for learning and retaining concepts related to academic language and content.
>
> (O'Malley and Chamot 1990:129).

The present research is partially motivated by such a suggestion. It attempts to bring in such a learner perspective, the one previously prevalent only in the context of discussions and suggestions in the literature. Below the aims of the study are detailed.

There are two central aims which guide the present study. One is to delineate the pattern of teachers' codeswitching behavior in the context described above. The other one is to explore the strategies learners deploy when processing codeswitching by their teachers. As we shall see in greater detail

classrooms, with a focus on studies pertinent to the present study, is provided.

The beginning of Chapter Three introduces a number of methods used to research L2 classrooms and briefly discusses the theoretical literature pertaining to research approaches, such as case studies and discourse analyses. Reasons for adopting the theoretical framework for this study are given, and criteria for methodological decisions are provided. This chapter also gives a detailed description of the method by which the data for the study were collected and analysed. It details ethical issues related to the study towards the end of the chapter.

In Chapter Four, the results of the pilot study are presented to help explain the decisions made with respect to sampling the teacher participants. Teachers' attitudes toward the codeswitching issues are also detailed by presenting the results from teacher interviews. This data provides an extra layer of evidence, contributing to a richer understanding of teachers' codeswitching in the L2 classroom.

Chapters Five to Seven detail the main findings. Chapter Five presents the findings of quantitative analyses of codeswitching distribution, which comprise the outcomes of timed analysis and linguistic analysis. Chapter Six presents the results of the functional analysis of classroom codeswitching. Chapter Seven presents the results of students' reactions to teachers' codeswitching.

In Chapter Eight, the discussion draws on the preceding chapters and links the outcomes of the present study with the findings from the literature. Some initial observations are made in terms of the emerging patterns of teachers' codeswitching behaviour and students' attitudinal and strategic reactions to teachers' codeswitching.

Chapter Nine concludes the thesis by providing a summary of findings in this study regarding classroom teacher codeswitching, and about the implications this may have for language learning and teacher education. Reflections are provided on the research methodology adopted and on pertinent areas for future research.

Chapter Two: Literature Review

Introduction

This chapter consists of a number of sections, the purpose of which is to provide both the theoretical and empirical contexts for the current study. The review starts by looking at how the issue of codeswitching is defined in the naturalistic setting in which language contact and language choices occur before narrowing down its focus to classroom codeswitching. The review then proceeds to concentrate on the contentious issue of codeswitching in the L2 classroom, and to explore both the theoretical and empirical premises which underlie the debate about L1 and L2 use in the L2 classroom. Different theoretical viewpoints and findings in the literature are also reflected, even though the empirical research has not been able to offer any clear-cut findings. I do not believe that the research findings to date provide definitive specifications for the emerging issue of classroom codeswitching; rather I wish to utilise the review to provide a backdrop for the current study.

2.1 Defining codeswitching

There are two tasks in this section. The first task is to define codeswitching in the naturalistic setting and the second one is to define codeswitching in the classroom. It is the latter which forms the research focus of the present study.

2.1.1 Defining codeswitching in the naturalistic setting

Codeswitching as a result of language contact and a common feature of

bilingual speech refers to an alternation between two or more languages within a single discourse or sentence. This typical linguistic behaviour in a naturalistic setting is also described as code-mixing, code alternation, language-switching, language-mixing, language alternation, and code-changing. While some authors draw distinctions among these terms, others do not. Although attitudes toward codeswitching are somewhat mixed, there is an increasingly common view that codeswitching implies a degree of linguistic competence rather than deficiency (Li Wei 2000: 15).

In broad terms, definitions of codeswitching are made and accepted from both structural and functional perspectives. Structurally speaking, codeswitching is 'the alternation of two languages within a single discourse, sentence or constituent' (Poplack, 2000: 214). Similarly, Valdes-Fallis (1978) defines codeswitching as the alternating use of two languages on the word, phrase, clause or sentence level. In contrast, there are those who define codeswitching more in terms of its functions. Auer (1984) defines codeswitching as the locally functional use of multiple languages in an interactional episode, which places emphasis on the roles of the different codes. Gumperz (1982) focuses on the functions of codeswitching when he defines it as a discourse phenomenon that can generate conversational inferences; that is, language choice itself can carry meaning in addition to the content of the message. In addition, Milroy and Muysken (1995) define codeswitching as "the alternative uses by bilinguals of two or more languages in the same conversation" (Milroy and Muysken 1995:7).

These broad theoretical understandings of codeswitching give rise to a number of research traditions in codeswitching studies to pursue this interesting yet highly complex linguistic phenomenon. So far these research traditions include sociolinguistic, psycholinguistic and structural approaches. The sociolinguistic approach attempts to explain why bilingual speakers talk the way they do, while the structural approach (sometimes referred to as the linguistic approach) seeks to identify the structural features of morpho-syntactic patterns underlying the grammar of codeswitched language. Apart from these two approaches, the psycholinguistic approach studies mechanisms involved in production, perception and memorisation of multilingual speech. Below each approach will be looked at in some detail.

2.1.2 Sociolinguistic approaches to codeswitching

The sociolinguistic approach seeks to describe why speakers alternate languages. In other words, it examines key social variables such as the identity of the speakers, their relationships in a conversation and the formality of the context (Li Wei 2002:162). This approach to codeswitching comprises two directions. The first direction is to study the identity-oriented dimension of codeswitching. This is also described as the 'language-reflects-society' approach (Cameron 1990). There is both quantitative and correlational work (such as Poplack 1988) and qualitative approaches (such as Gardner-Chloros 1991; Heller 1995); There are also theories such as the 'we/they' code by Gumperz (1982) and the Markedness model by Myers-Scotton (1993). The central question of this type of research is how language choice is negotiated

as a consequence of power and inequality, or as an index of the 'rights and obligations' attributed to incumbants of certain social categories. However, according to Auer (1995,1998), neither macro identity related research nor grammatical constraint research (which will be examined in 2.1.3) can address codeswitches occurring at the conversational level, thus leaving a gap between the macro sociolinguistic attention to language choice and the micro analysis of intra-sentential grammatical constraint.

Therefore, the second direction is to address such a gap and study the interactional or organisational aspect of codeswitching in discourse. Such research in the conversation analytic (CA) tradition argues that social structure must be demonstrated to be relevant to the participants themselves through a close, detailed examination of turns at talk in a sequential context (Li Wei 1998; Schegloff 1991). Such an approach scrutinises codeswitches in conversations in order to address the issue of why speakers codeswitch and what impact it has on interlocutors. The merit of employing a CA approach to codeswitching is, according to Auer (1998), that it can take into account both the larger social context and the syntactic regularities of intra-sentential switching.

Li Wei reconciles sequential interaction not only with 'linguistic identity' in the sense of locally constructed positioning (e.g. Li Wei 2002), but also with the sociological context (Li Wei 1994, 1998) and 'identity' (Li Wei 2005) in the sense of rights and obligations. However, Li Wei, like other CA analysts, insists that observations about social roles and language norms be tied to

close observation of discourse, rather than simply being posited on the basis of an analyst's intuition. He has been consistently critical of 'analyst-oriented, theory driven, top down approaches (1998:157)' to the analysis of codeswitching, including Blom and Gumperz's (1972) description of situational and metaphorical, and especially Myers-Scotton's (1993) markedness model. In a seminal example which Li Wei (2005:383), presented in his study of the Tyneside Chinese community in the UK about a mother and a daughter dialogue on making a request for money to go to the cinema, he compares the strength of sequential analysis advocated by him and the rational choice analysis in Myer Scotton's markedness model. He points out that the rational-choice analysis may tell us something interesting about the exchange (that is, that the daughter ameliorates her request for money), but it is the sequential analysis that gives fuller evidence for this activity, and thus a warrant for the claim. Therefore, rather than throwing out notions of rights and obligations, Li Wei (ibid) recommends complementing such analyses with close observation of discourse. He states:

> To focus on the interaction-external factors alone means ignoring the richness of the interactive work speakers do in conversation and risks imposing of the analysts' interpretation without evidence.
>
> (Li Wei 2005:387).

Furthermore, according to him, close observation both strengthens analyses and leads to greater reliability.

2.1.3 Structural approaches to codeswitching

As stated earlier, the structural approach to codeswitching seeks to identify and establish grammatical rules for language alternation, that is to say, the morpho-syntactic constraints that are likely to restrain language choices within sentences or one sentence. Although various models and constraints have been proposed in recent decades, they cannot be fully presented here due to the constraint of space (For details refer to Muysken, P. 2000 in Li Wei [ed] 2000). This review will be restricted to a number of seminal works in this direction.

Two constraints related to the switch site were proposed by Poplack (1980). One is the free morpheme constraint and the other is the equivalence constraint. In the former constraint, speakers are more likely to switch languages after constituents that are not bound morphemes. The latter constraint suggests that codeswitching may occur at points in which the surface structures of the languages correspond to each other. In other words, the juxtaposition of the elements from the two languages will not break the syntactic rules of either language. This theoretical model has been tested and found applicable in many language pairs, for example, typologically closely related language pairs such as English-Spanish and English-French. However, this model may not be applicable to all possible language pairs, for example, English and Arabic, French and Chinese. This has made the universal application of this model less possible. Given that, the framework seems to represent an early significant effort to systematically describe the morpho-syntactic structures of codeswitching, i.e. the grammatical constraints of codeswitched language.

Similarly, Myers-Scotton developed her Matrix Language Frame model (1993), in an effort to provide detailed systematic description of the possible morpho-syntactic mechanisms of codeswitching. She distinguishes two types of languages involved in codeswitching: the matrix language and the embedded language. Her matrix language hypothesis simply states that the matrix language brings the order of morphemes and that system morphemes must be provided by the matrix language. Related to this, the blocking hypothesis advocates that embedded language words that are not congruent to the matrix language in terms of system and content morphemes are blocked, and as a result, no switching between languages is allowed. For example, if the embedded language expresses a notion with inflection while the matrix language uses a preposition, no switching to the embedded language can occur. These are similar to the free morpheme constraint and the equivalence constraint proposed earlier by Poplack. The limitation applicable to Poplack's model reviewed earlier may also pertain to this model.

Myers-Scotton's model also distinguishes between a switch from one language to another within a sentence (intra-sentential codeswitching), and a switch between sentences or at the end of a sentence (inter-sentential codeswitching). In inter-sentential codeswitching, the language switch is made at sentence boundaries. The notion of inter-sentential codeswitching may be problematic in speech data because people do not speak in sentences necessarily. In intra-sentential codeswitching, the shift is made in the middle of a sentence, with no interruptions, hesitations, or pauses to indicate a shift.

The classification of inter-sentential codeswitching and intra-sentential codeswitching is based on the syntactic and morpho-syntactic aspect of codeswiching. In contrast to the view that intra-sentential codeswitching may be a sign of laziness or weak linguistic competence, Poplack (1980) suggests that intra-sentential codeswitching may actually require the greatest skill and fluency in each language. This is also echoed in Romaine (1994), as she states that intra-sentential codeswitching involves the greatest syntactic risk because of the difficulty of integrating two or more linguistic systems.

In the presence of the proliferation of various typologies and systems in describing the grammatical aspect of codeswitching, Muysken (1997) proposes a tripartite model to describe the structure of codeswitching. He suggests three distinct types of intra-sentential codeswitching, namely, alternation, insertion and congruent lexicalisation. Alternation is described as a true switch from one language to another, which means that both grammar and lexicon switch. With alternation, there is no embedding of one language within another; rather there is juxtaposition of two or more languages. In alternation, there is surface linear equivalence at the switch site, which is roughly the equivalent of Poplack's equivalence constraint. With insertion, items from one language are embedded within the frame of the other language; that is, the rules of syntax and the bulk of lexemes come from the embedding language, while items from the embedded language are subsumed in the structure of the framing language. Insertion roughly corresponds to the tenets of Myers-Scotton's Matrix Language Frame model, in which the host language determines the order of constituents, which may then be filled by

items from the donor language. Codeswitching involving congruent lexicalisation requires the languages involved to "share a grammatical structure which can be filled lexically with elements of either language" (Muysken 1997: 362). Congruent lexicalisation, according to Muysken, occurs most frequently in typologically closely related languages that share many syntactic patterns, which can then be filled with words and phrases from either language.

None of the above systems can explain everything and they also tend to contradict each other. Muysken (2001) proposes the notion of neutrality to neutralise the system conflict:

1) Switching is possible when there is no tight relation (e.g. of government) holding between two elements; so-called paratactic switching;
2) Switching is possible under equivalence;
3) Switching is possible when the switched element is morphologically encapsulated, shielded by a functional element from the matrix language;
4) Switching is possible when at the point of the switch, a word could belong to either language, as in the case of homophonous dimorphs (e.g. *in* in English, German or Dutch).

(Muysken 2000: 295).

He states that this model may be all encompassing in that it reflects the pluralistic and idiosyncratic nature of various mechanisms and their roles in different codeswitching contexts (ibid).

Muysken (2000) also made an attempt to link the sociolinguistic settings of codeswitching with his structural model of alternation, insertion and

congruent lexicalisation. Muysken's proposed categories of intra-sentential codeswitching provide an approach to the study of language alternation that addresses both structural and sociolinguistic issues. Belwo we will turn to the psycholinguistic approach to codeswitching.

2.1.4 The psycholinguistic approach to codeswitching

Related to questions of the psycholinguistic aspect of codeswitching are issues of storage and acquisition of multiple languages. Weinreich (1953, 1968) identified three possible types of bilingualism: coordinate bilinguals, compound bilinguals, and subordinate bilinguals. Coordinate bilinguals may be analogous to two monolinguals with two distinct, parallel lexicons as well as separate sets of concepts to which lexical items are mapped. For example, coordinate bilinguals might have both the English word 'book' mapped to a notion of a book, and the Chinese character '书' (tr: book), which maps to a separate notion of a Chinese book. Compound bilinguals, on the other hand, are assumed to have one single set of concepts, but with two sets of lexical items and grammatical rules to express that notion, e.g. 'dog' and '狗'(tr:dog), containing the notion of a dog. For subordinate bilinguals, one language dominates the other language or languages, and the subordinate languages are processed through and with the help of the dominant language.

Early researchers viewed codeswitching as evidence of coordinate bilingualism. In other words, bilinguals' two languages were regarded as being organised in a separate and distinct mental lexicon. For example, some

research suggests that the time used by bilinguals to process, i.e. to read and comprehend sentences containing codeswitched words, is longer than monolingual sentences because there is a switch mechanism to activate two languages successively during the course of language comprehension. Thus, for Chinese-English bilinguals speaking English, the English linguistic system is turned on, whereas the Chinese linguistic system remains off. However, if during the course of comprehending a sentence, a Chinese codeswitched word is encountered, the mental switch must disable the English linguistic system, and enable the Chinese linguistic system.

This notion of coordinate bilinguals has met with criticism from Grosjean (1985). He rejects the idea that an ideal bilingual should be the equivalent of two monolinguals. He criticises such a belief on the grounds that it is simplistic and takes into account neither social nor psycholinguistic factors that are likely to influence the way bilinguals use their languages. He stresses the need for the study of simultaneous activation that is required for codeswitching (1985: 470). In addition, he advises that more work should be done to describe bilinguals' mixed competence as distinct from the competence in two separate languages, and studies should focus on language processing when language input and output are monolingual as well as when input and output are multilingual (1985:472). Grosjean's perspective is that multilingualism and codeswitchingh should be studied from a multilingual, not monolingual perspective. This position presumes that multilingualism is normal and not a deviation from monolingualism, and that it may shed light on the organisation of functioning of the multilingual brain, including the production and processing of codeswitching.

In sum, we have briefly looked at the definitions of codeswitching and its related research traditions in a naturalistic setting. Alternatively, in language acquisition, second language acquisition or language learning, codeswitching refers to the classroom and learner practice involving the use of more than one language. In light of this, it is necessary to examine classroom codeswitching in considerable detail.

2.1.5 L2 classroom codeswitching

Codeswitching in a naturalistic setting happens frequently and naturally. However, in the classroom setting, especially in L2 classroom, when L1 should be used either by the teacher or the students may be somewhat contentious (cf. Macaro 2005). Sometimes the insertion of L1 in L2 discourse is viewed as something to frown upon, which should be avoided at all costs. This attitude is, for example, exemplified in the natural approach advocated by Krashen and Terrell (1983), which is 'based on the use of the language in communicative situations without recourse to the use of the native language' (Krashen and Terrell 1983:9). 'Falling back on L1', similar to the word 'recourse', is indicative of the interference associated with the use of the L1 in the communicative L2 classroom. This negative view of L1 use permeates much of the second language acquisition (SLA) literature, especially studies dealing with input and interaction (e.g. Brooks 1990; Ellis 1999; Gass 1997; Johnson 1995), in which codeswitching or use of the L1 in L2 discourse often does not enter into discussion (Levine 2003:342).

However, there has been a gradual shift of attitudes towards classroom codeswitching from being negative to positive. Despite the considerable debate about whether the derogatory phrase 'recourse to L1' should be substituted by 'codeswitching', which carries little negative connotation (Macaro 2003, 2005), a number of researchers have argued for the use of the term 'codeswitching' on the basis that it is a bilingual competence (Li Wei 2000), and that consequently, it should be included in the L2 curriculum. For example, Macaro (2005) argued that:

> Learners deprived of codeswitching in the discourse cannot develop an important communication strategy. Many 'future' conversations will, in fact, be undertaken by speakers who share the same two languages 'to some extent'. This is increasingly so in the commercial world as globalisation of work locations increases.
>
> (Macaro 2005: 80).

This argument clearly needs to be substantiated with empirical evidence in order to be made more forceful. Some empirical evidence have emerged to support the view that codeswitching reflects a competence rather than a deficiency, and rectifying the use of L1 in the classroom as 'codeswitching' rather than 'recourse to L1. For example, Arnfast and Jørgensen (2003) identified that codeswitching patterns developed in American learners of Danish appear to follow a certain trajectory such as employing codeswitching as a compensatory strategy at the beginner level of language learning, then progressing towards more natural and bilingual codeswitching behaviours as their proficiency gradually develops. This finding, thus, provides empirical support for the legitimate use of codeswitching in L2 classroom.

However, in order to establish the status quo of teacher L1 use as a type of codeswitching behaviour in the classroom, more empirical evidence may be needed. If the establishment of the legitimacy of the teacher L1 use as codeswitching behaviour remains our goal, some further difficulties need to be tackled. For example, we need to ascertain apart from the functional parameter of codeswitching, how much codeswitching should take place in the L2 classroom. In addition, we need to explore the effect of codeswitching on learners' strategies development and their L2 learning (Macaro 2005).

2.1.6 Medium and message functions of classroom codeswitching

One model that account for the variations in the use of classroom codeswitching is Macaro's functional use of codeswitching (Macaro 1998a). This model, developed by Macaro (1998a) based on his data collected from secondary schools in England, categorises the functions of teacher classroom talk primarily as 'medium' and 'message' (Butzkamm and Dodson 1980, quoted in Hakansson and Lindberg 1988). Medium functions of classroom codeswitchingc, according to Macaro (ibid), include translation from L2 to L1, translation from L1 to L2, correcting the L1, teacher echo in L1, while message functions of classroom codeswitching include information giving, instruction, reprimand. There is also one cross category: eliciting and repairing in L1 which can be both medium and message. The graphic detail of the model is provided below.

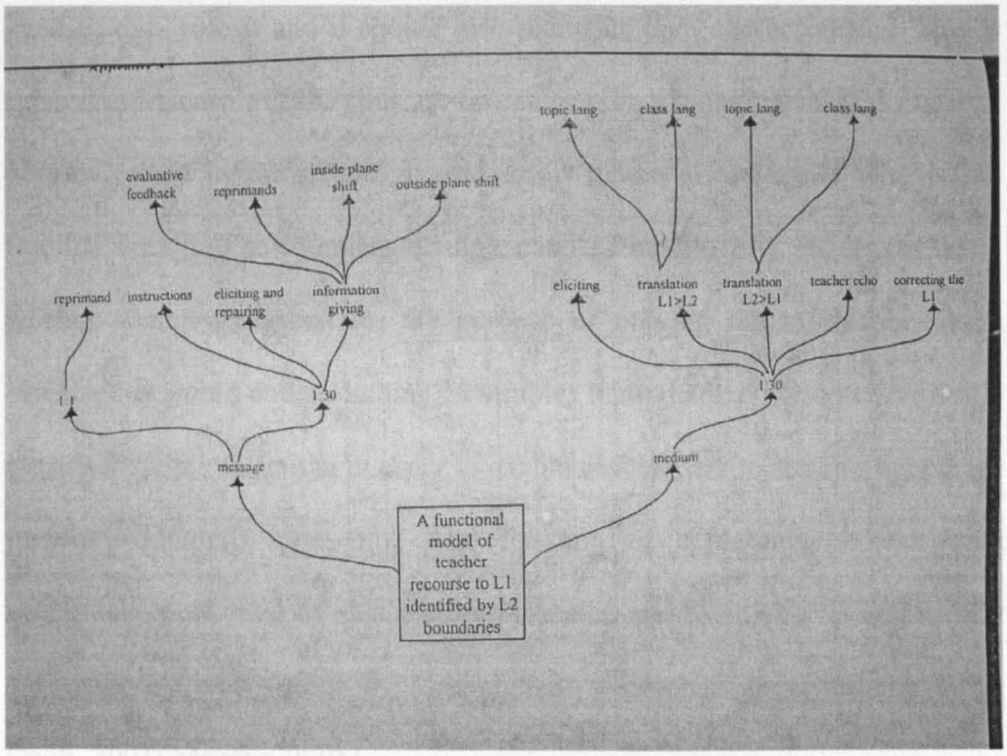


Figure 1: Macaro's functional model of teacher codeswitching (1998a)

This model forms the backbone of the present study primarily because of its ability to contextualise teachers' language choices in L2 classroom discourse. In addition, this model may be of help to build up an optimal use of codeswitching and the model of medium and message functions of codeswitching will be further elaborated with data in Chapter Six.

Nonetheless, some resesrchers (e.g. Turnbull 2001; 2006) may compare classroom codeswitching with naturalistic codeswitching mechanically, cautioning that some medium functions may be problematic, for example, those intra-sentential lexical translations that may be less close to the naturalistic behaviours of those message-oriented codeswitching. While his concern may be understandable, it seems that, while classroom codeswitching may need to resemble naturalistic codeswitching to some extent, it does not

need to duplicate it and it should also retain its own characteristics. This is echoed in Macaro's (2005) discussion centring on a hypothetical (L2 English) phrase 'raised in the gutter' uttered to an Italian (L1) learner who is not familiar with it (The complete example can be found in 2.8). He argues that a teacher switch to Italian for the purpose of moving the interaction along (message-oriented codeswitching) resembles naturalistic codeswitching while a teacher switch to Italian in order to enable the learners to acquire the phrase (medium-oriented), does not. The function of explaining or clarifying vocabulary perfomed by this medium-oriented codeswitching is empirically supported by works done by a number of researchers (e.g. Kaneko 1991; Cook, 2001; Macaro, 2001).

Summary of 2.1

In this first section, we have outlined codeswitching from two perspectives, i.e. the naturalistic perspective and classroom perspective. We have learnt that while models and frameworks exist to account for codeswitching, the phenomena is indeed complex not only in the naturalistic context but also in the classroom environment. This will be manifested in the debate in the next section.

2.2 The L1 and L2 debate

The issue of whether or not to include L1 in the L2 classroom has long been controversial among academics. The recent revival of interest in this area has

brought the matter into the spotlight once again. Macaro's three positions regarding the L1 exclusion debate, namely, the 'virtually all', 'maximal', and 'optimal' perspectives (Macaro 1997: 73), encapsulate all of the arguments in the debate about language choices and alternations in L2 classrooms. The 'virtually all' argument promotes the view that L1 has no value whatsoever and should be avoided at all costs. Similarly, the 'maximal' view does not acknowledge the role of L1, although, its position in this respect is less extreme than that held by the proponents of the 'virtually all' view. The 'maximalists' view upholds that while the use of L1 should be avoided, in view of the fact that the ideal classroom state does not exist, the use of L2, where necessary, is inevitable. Those proponents of the third perspective, the 'optimal' view, consider the use of L1 to have pedagogical value, and as a consequence, believe that its role should be acknowledged. However, there is general agreement among those holding the 'optimal' perspective that L1 use should be controlled, and that the optimal principles and guidelines should be established and informed by empirical research. Having introduced these three principal views, it is necessary to examine in detail the 'virtually all' and 'maximal' positions, both of which argue for the exclusion of L1 from the L2 classroom.

2.2.1. Excluding L1

Advocates of virtually all and maximal use of L2 (Chambers, F 1991; Frey 1988; Halliwell and Jones 1991; Macdonald 1993; Neather, Woods, Rodriguez, Davis & Dunne 1995; Liu, Ahn, Beak and Han 2004) tend to

subscribe to the tenet that sufficient comprehensible input in the form of L2 will lead to acquisition (Krashen and Terrell 1988). In other words, TL promotes natural acquisition, and use of L1 impedes this process by interfering with students' levels of concentration on their L2 learning. In addition, in some 'input poor' FL contexts, introducing L1 or increasing its use will inevitably deprive learners of opportunities for exposure to the L2 (Ellis 1984). Therefore, the elimination of L1 use in the class is suggested. If the total exclusion of L1 is not possible, its role, at least, should be minimised. The importance of excluding L1 emphasised in these two views is for example supported indirectly by Morgan and Neil (2001), who offer the following summary of the arguments for working exclusively in the medium of L2:

> 1. Learners are provided with a good model of the language;
> 2. Students have maximum opportunities to learn by doing;
> 3. Using the L2 accords with a communicative approach;
> 4. L2 should be used for important communications with students, so that it is not seen as an unimportant medium.
>
> (Morgan and Neil 2001: 148).

This belief in the value of L2 forms the backbone of those methods in teaching foreign or second language such as the Total Physical Response (TPR), the Direct Method and the Natural Approach, which are premised on the assumption that the maximum use of L2 is the key to the success of L2 acquisition. This view is also couched in the debate as to who is the more effective practitioner of L2 teaching: the native speaker teacher or non-native speaker teacher, as it may be assumed that the two kinds of teachers will

provide different kinds of input in terms of L2 and L1 distribution. National policies regarding the use of L2 and L1 in some countries also provide the catalyst for using L2. For example, the one issued by Department of Education and Science (DES) in England and Wales quoted as: " The natural use of the target language for virtually all communication is a sure sign of a good modern language course." (DES 1990:58).

Apart from this one, the two syllabi in Mainland China we looked at earlier in Chapter One have begun to ignore the issue, due, in all probability, to its contentiousness. Consequently, the use of L1, as pointed out by Macaro and Meng (in progress), is often described in derogatory terms such as 'resorting to the L1', and has become 'an issue about which methodologists have succeeded in inducing a sense of guilt in teachers'(Mitchell 1988: 28).

2.2.2 Including L1

Contrary to those who tend to view L1 as interference, there are those who are less convinced about such a negative attitude toward the role of L1. They believe that the use of L1 can have considerable positive impact on learners and their learning. The use of L1 may be viewed as a strategy (Atkinson 1987, Harbord 1992, Arnfast and Jørgensen 2003) for communication or learning. Atkinson (1987), for example, notes how pedagogically unfashionable translation techniques actually 'form part of the preferred learning strategies of most learners.' (1987:42). Butzkamm (1998, 2003)

states that teachers' use of L1 can function as a 'bilingual dictionary' (1998:96) as well as a 'language acquisition support system' (2003: 29). Canagarajah (1995) considers that codeswitching to L1 can increase learners' motivation to learn. Macaro (2003) hypothesises that teachers can use codeswitching as a 'modelling strategy' that encourages learners to imitate.Harbord (1982) offers three reasons for allowing some use of L1 in the classroom. He states:

> 1) Using L1 to facilitate communication;
> 2) Using L1 to facilitate teacher and student relationships;
> 3) Using L1 to facilitate learning of L2.
>
> (Harbord 1992:352)

Nonetheless, there appears to be some overlap between the two opposing views that have been discussed. Below let us look at a possible third view which may help mitigate such a contentious issue.

2.2.3 The neutral view of L1

This view tends to acknowledge the inevitable use of codeswitching but remains cautious of the dangers of its overuse (Turnbull 2001; Turnbull & Arnett 2002; Castellotti 1997). These researchers express concern that permissive L1 use may set a tone that implicitly promotes its wider application. If more L1 is allowed, learners' opportunities to produce comprehensible output and meaningful negotiations are likely to decrease.

Consequently, the class may run the risk of reverting back to a L1 dominated lesson.

Therefore, this third view dictates that any language choices in the classroom need to be prudent and systematic in the light of the absence both of evidence that exclusive use of L2 leads to effective language learning, and of evidence of how L1 can be best employed. Thus, it is important to be cautious about the unbridled use of L1, and to strive to establish the 'optimal' use of codeswitching. For example, Guo Minghua (2002), acknowledging the possible negative impact of L1 in L2 learning, argues for the necessity of understanding the positive role of L1 in L2 learning.

Apart from this, however, both Harbord (1992) and Macaro (1997, 2003) raise methodological questions concerning the use of L1, such as when and how much should we allow L1 and on what grounds; and how can we define 'judicious'? Macaro and Meng (in progress) also warns that these debates are made mostly at the pedagogical level, that is to say, the concern has been oriented towards the maximum use of L2 rather than as a contribution to L2 acquisition theory.

In the next section, theoretical premises for the L1 and L2 debate will be examined.

2.2.4 Theoretical premises for the debates

The L1 versus L2 debate has been primarily concerned with pedagogical arguments and have never seriously been framed theoretically. With regard to the use of L2, Macaro (2000) summarises six arguments and counter arguments:

1. Argument: A language acquisition device (Chomsky, 1965) or universal grammar (Chomsky 1980) appears to be universal and operates with L2 learners.

Counter-argument: This device, operational though it may be, can be superseded, with older learners, by high level cognitive skills which have been developed through the L1.

2. Argument: As the natural sequence in learning a language has been detected in L2 learners as well as in native speakers, such sequencing in the language acquisition process should be respected.

Counter-argument: The sequence can be affected by context and teaching. One can learn, retain and use L2 structures encountered out of any 'natural' order.

3. Argument: Hypothesis testing is used by both L1 and L2 learners to explore new language.

Counter-argument: Apart from hypothesis testing, L2 learners also have L1 as a resource.

4. Argument: The linguistic progress of L2 learners can be organised in the same way as L1 learners acquire the language.

Counter-argument: Language is linked to psychological development. One cannot compare the psychological development stages of a baby with those of a child of L2.

5. Argument: Teacher-talk in the L2 classroom, like child-directed speech in L1, can lead to learner acquisition, as long as input modifications are used.

Counter-argument: L1 and L2 learners may differ enormously in terms of the amount of input received, despite the input and interaction effect of the teacher talk.

6. Argument: A learning environment similar to that found in L1 acquisition can be created in the L2 classroom.

Counter-argument: An L2 classroom can never be an L1 learning environment such as home.

(Macaro 2000:173-174).

The above six arguments and counter arguments are by no means exhaustive and conclusive; however, they represent an initial attempt to establish a theoretical framework to understand the controversial issue of codeswitching in the L2 classroom. These theoretical arguments and counter arguments can boil down to three respective theories which will be examined in detail below. The first one is related to the comparison of L1 acquisition and L2 learning.

2.2.4.1. Arguments based on L1 and L2 comparison

The first premise for the avoidance of L1 is the belief that L1 and L2 are the same in terms of their acquisition process. In other words, L2 learning can be facilitated simply by copying the L1 process, i.e. the way we learn our native language as babies. If the duplication of L1 acquisition in L2 learning is possible, this implies a priori that there should only be one language involved in the learning. Thus, the exclusion of L1 would seem to be justified. Furthermore, due to the fact that monolingual L1 children learn L1 without another language and L1 acquisition will always be successful, L2 acquisition should be able to succeed by using only one language. Therefore, a teacher who uses the students' L1 for classroom interaction may interfere with the functioning Language Acquisitions Device (LAD) (Chomsky 1965) or universal grammar (Chomsky 1980); depriving the students of the only true experience of the L2 that they may ever encounter. Thus, the teachers may be considered to be wasting a golden opportunity if they employ codeswitching.

2.2.4.2 Arguments based on language compartmentalisation

The second premise is related to the way in which languages are processed, stored and retrieved in the learner's mind. This argument postulates that successful L2 acquisition depends on the separation of L2 from L1 (Cook 2001). Therefore, excluding L1 may imply that the goal of L2 teaching is co-ordinate bilingualism, in which the two languages form distinct systems in the mind, rather than compound bilingualism, in which they form a single compound system (Weinreich 1953). Hence, L2 learning should happen solely through the L2 rather than being linked to the L1.

This compartmentalisation is found particularly in the L2 classrooms featuring a style of teaching that uses L2 predominantly along with recourse to L1. Teachers who explain the L2 word, define or mime its meaning, show pictures, etc. without translating, hope that in the long-term this will build up the L2 as a separate system. This appears to be the cornerstone for some of the teaching approaches and for those who practise them. According to Kharma and Hajaj (1989), the methods and approaches giving rise to the exclusion of L1 include the Direct Method, TPR (Asher 1977 cited in Kharma and Hajaj 1989), and the Natural Approach (Krashen and Terrell 1983). Common features of these approaches and methods are the termination or minimising of the role of L1 in the teaching and learning of a second language.

2.2.4.3 Arguments based on input theory

The input hypothesis that sufficient comprehensible input in the form of L2 leads to acquisition (Krashen 1987), may be regarded as a bedrock of theoretical support for the exclusion of L1 from the L2 classroom. In order to achieve a 'sufficient amount' of comprehensible input, anything other than L2 should be kept to a minimum, if not completely eliminated. Failing to do so leads to the depriving of valuable TL input for learners (Ellis 1984). Such failure also renders impossible the provision of a rich environment that exposes learners to all kinds of functions, in which not only instruction and drills are executed in TL, but also disciplinary and management operations (Chaudron 1985: 21, Nunan 1992:7). In Wong-Fillmore's (1985) view, the lack of adequate input may also deprive learners of opportunities to guess what the teacher and others say to them, an important part of the language learning process, and will tend to shift learners' attention away from the target input. It seems logical to argue, therefore, that the more students are exposed to TL input, the more they will learn. Exposing learners to TL input provides the strongest theoretical rationale for maximising teachers' TL use. Therefore, L2 rather than L1 should be the language of real communication during the class. A typical communicative teaching view is that:

> Many learners are likely to remain unconvinced by our attempts to make them accept the foreign language as an effective means of satisfying their communicative needs, if we abandon it ourselves as soon as such needs arise in the immediate classroom situation.
>
> (Littlewood 1981: 45).

This is the basis for such claims as, for example, in British government policy

statement with regard to the use of L1 and L2 in FL classrooms, which we have looked at earlier in 2.2.1.

Summary of 2.2

To sum up, in the first part of this section we have reviewed the three designations of L1 /L2 use which underlie the debate. Following on from that, we have taken an extensive look at the theoretical foundations which fuel those highly contestable positions in codeswitching issues in L2 classrooms. These theories seem to provide some support for the exclusion of L1 in the L2 classroom; however, the issue of L1 use or codeswitching in the L2 classroom is far from straightforward. Central to the argument appears to be the issue of input. On the one hand, exposure to L2 input is emphasized. On the other hand, mere exposure to L2 input, according to some researchers does not ensure intake. There are other variables such as the nature, relative frequency, and modification of the input, as well as interaction and/or output (Swain, 1985, 1993) that appear to determine whether input becomes intake. It then may be sensible, therefore, to consider whether L2 input might become intake more readily if teachers use the L1 judiciously to catalyse the intake process in some way. Moreover, in the past decade there has been incremental interest on the debate about the use of L1 in the L2 classroom, despite little empirical evidence available to establish the role of L1 in L2 classroom. The theoretical rationale for this role of L1 will be provided in the following section.

2.3 Theories of codeswitching in L2 learning

We have just reviewed the L1/L2 debate and the theoretical premises which underpin excluding L1 from L2 classroom. In contrast, in this section, theories that postulate the facilitative effect of codeswitching (or L1) in L2 learning will be appraised. Such theories include cognitive theory, socio-cultural theory and linguistic theory. Cognitve theory of codeswitching will be looked at first below.

2.3.1 Cognitive theory of codeswitching

Macaro (2003) argues that the mechanism for L1 use or codeswitching in the L2 classroom would seem to be better accounted for by cognitive theory than Chomsky's universal grammar. The former refers to the theory of codeswitching that explains how the complex structure of the mind of a bilingual can be unravelled in terms of the processing, storage and retrieval of two languages. Macaro (ibid) particularly advocates the use of a cognitive model to frame the codeswitching or use of L1. This is echoed by Cook (2001), emphasising a connectionist view of L2 acquisition:

> Learning an L2 is not just the adding of rooms to your house by building an extension at the back: it is the rebuilding of all internal walls. Trying to put languages in separate compartments in the mind is doomed to failure since the compartments are connected in many ways.
>
> (Cook 2001:420)

What both Macaro (2003) and Cook (2001) appear to propose is the integration of two languages in the L2 user's mind, rendering any attempt to compartmentalise them futile. In other words, they advocate not a model of lexical architecture based on the formation of separate, language-specific lexicon, i.e. a coordinate bilingual model (Weinreich 1953) in which 'ideal' bilinguals should be the equivalent of two monolinguals (Grosjean 1985), but a rather homogeneous compound bilingualism (Weinreich 1953).

The two languages are interwoven in the mind of the L2 user in vocabulary, in terms of syntax, phonology and pragmatics, and more importantly, this language or lexical structure is assumed to have, as we elaborated in 2.1.4, one set of concepts containing the notion of a word, but with two sets of lexical items and grammatical rules to express that notion. This model of the composition of the L2 learner's mental lexicon, despite being contestable, is further supported by evidence obtained from recent research suggesting that homogenous architecture is much more likely. In such composition, all closely related representations are activated by a given stimulus, regardless of whether they were originally created through one language or another (Kroll 1993; Libben 2000; N. Ellis 2005).

In a similar vein, the formation of the mental lexicon is described in Swan's work on the 'equivalence hypothesis'[4]. In putting forward the hypothesis, he (1997:166) argues that L1 is an asset and puts the L2 learner 'ahead of the game'. He further details the advantages of such a single language lexicon

[4] The simplest version of the learner's equivalence hypothesis might be stated as follows: "foreign words look different from mother tongue, but work in the same way (semantically and grammatically) (Swan 1997:166)

system; when reflecting on vocabulary-related pedagogy, he makes it clear that:

> Second language learners have one great advantage over infants: they have already learnt how one culture categorises and labels the world. Whatever the differences among human cultures and their perceptions, there is also massive common ground, so we already know a lot about the scope of much second language vocabulary before we have learnt it....a second language learner is likely, then, to short-cut the process of observing new words, various references and collocations, by mapping the word directly onto the mother tongue.
>
> (Swan 1997:165).

This is echoed in Ellis (1995)'s updated transfer research, which suggests that there has been a reconceptualisation of the influence of L1, which should be viewed not as an impediment, but as a resource that learners can draw upon in the cognitive aspects of second language acquisition. With focus on developing multiple competences in learners, Cook (1999: 202) argues that exclusive use of L2 is 'virtually impossible to achieve and ... denies their status as L2 users'. He (ibid) further argues that "using more L1 in teaching may make students realise that they are not simply imitating active speakers and they can be a multi-competent speaker"(Cook 1999: 204).

Similar ideas with regard to the benefits of using L1 can also be found among applied linguistics scholars in Mainland China, even though some of their ideas need to be empirically tested. For example, Gui (1985) posits that "L2 acquisition and FL learning do not begin with zero, they begin with mother tongue" (Gui 1985: 246).

In the light of the findings from cognitive psychology with respect to the role

of L1 in L2 learning, Macaro and Meng (in progress) further argue that there are advantages to be gained in making L1 and L2 semantic associations because of the stronger associations already established in L1 between a word and its referent. Macaro (2001b) tentatively suggests: "Given our discussion on the limits of working memory processing capacity, it is not an unwise conjecture that the noticing will be mediated by the L1."(Macaro 2001b: 126).

However, further research needs to provide unproblematic evidence in this regard. The use of L1 in such a homogeneous model, as Macaro (2003:41) claims, "can have at least as substantial a facilitating acquisition role as it can have an inhibitory role".

2.3.2 Socio-cultural theory of codeswitching

There have existed a number of empirical studies on the analysis of L2 classroom interaction from the socio-cultural perspective (e.g.Brooks and Donato 1994; Lantolf and Appel 1994; McCafferty 1992; Swain and Lapkin 1995). In a recent review, Lantolf (2006) touched on the role of L1 to mediate cognition, i.e. the deployment of language to mediate psychological activity. On the basis of the outcome of the studies undertaken by Lantoff and Frawley (1984) and Ushakova (1994), Lantolf (2006) ascertains that L1 can be used for the externalisation of learners' private (inner) speech to regulate or organise their cognitive activities, though conclusive evidence is not found regarding the causal link between the externalisation of private speech and the successful solution to the problem in the language tasks. Lantolf (ibid) draws

attention to the finding that learners in the studies tend to switch to L1 to perform the function of regulating cognitive activities. He states:

> Although it (L2) might be used for fluent and proficient social speech, the L2 (at least in the studies conducted to date) seems to take up a sufficient amount of a speaker's attention so that it cannot fully serve to mediate cognition.
>
> (Lantolf 2006:74).

The above socio-cultural account of codeswitching concurs with the following studies. Hird (1996) examines assumptions underlying the use of group work in the teaching of EFL in China. The study concludes that the primary role of small group discussion in FL learning should be in the development of collaborative learning strategies to master content rather than interpersonal communication in the TL. When examining the language choices in learner group work, Hancock (1997) argues that the learner's discourse has on-record (in the literal frame) and off-record (in the non-literal frame) features. The former is performed in the negotiation by learners and the latter is performed to be overheard by a referee (L2 audience). The significance of the identification of this pattern, as the author argues, underpins the decision-making of the teachers and their choice of language behaviour in the L2 classroom. Swain and Lapkin (2000) focus on the use of L1 by Grade 8 French immersion class learners when they attempt two different tasks. The results seem to suggest that the amount of L1 use does vary with the nature of task. They conclude:

> A social-cultural theory of mind suggests that L1 serves as a tool that helps students as follows: to understand and make sense of the

> requirements and content of the task; to focus attention on language form, vocabulary use, and overall organisation; and to establish the tone and nature of their collaboration.
>
> (Swain and Lapkin 2000:268).

What the above studies seem to suggest is that L1 plays a vital role in the learner's inner speech, or in the language of task management, and that the L1 is an integral component of cognitive processing and task achievement.

In addition, Anton and Dicamilla (1999) note that from a socio-cultural perspective, L1 is an important 'semiotic tool, especially among L2 learners with the same L1 background and a low level of proficiency in the second language'(Anton and Dicamilla 1999: 234). Auerbach (1993) emphasises the effects of L1 on the affective domains of the learners. He argues that the use of L1 can,

> reduces anxiety and enhances the affective environment for learning, takes into account socio-cultural factors, facilitates incorporation of learners' life experiences and allows for learner-centred curriculum development'
>
> (Auerbach1993: 20).

Similarly, Harbord (1992) maintains that students' L1 can function as the primary means of communication and cultural expression. The absence of such a humanistic approach may pose a threat to local culture and community languages as it reinforces unequal relationships (Atkinson1993; and Phillipson 1992).

There are also a few more studies on the language of thought which may be appropriate to review here. These studies have looked at the effect of composing in the L1 and then translating into the L2 (Cohen and Brooks-Carson 2001; Kobayashi and Rinnert 1994). They have found that the lower L2 proficiency writers benefit from composing in the L1 and then translating into the L2, a result that highlights the importance of using L1 composing strategies for lower L2 proficiency writers. Having used think aloud to study two groups of learners during reading and listening tasks, Macaro (1998a and 1998b) notes that the language of thought is always L1, regardless of whether or not it is in the think aloud task. In other words, the 15-year old learners in England always employ L1 to check for the cognates, while the Italian learners listening to a recorded text with the L2 subtitles would appear to process everything in L2. However, as argued by Macaro (2001a), the notion of thinking in L1 needs to be defined. According to Cohen (1998), most memorisation techniques, for example, key word association deployed by learners involve some association between the L1 and the L2.

2.3.3 Naturalistic codeswitching theory

If we link the discourse pattern of the FL classroom with that of the bilingual speech community, questions we may ask are: How natural is the FL classroom discourse? How close does the FL classroom discourse resemble natural discourse found in bilingual speech community?

The answers to these questions are not straightforward. The L2 classroom in

which teaching and learning of a foreign or second language take place is part of social milieu; therefore, it may have overlap with the outside bilingual communities. However, it differs from outside bilingual communities in many respects.

In the naturalistic context, stakeholders are speakers and interlocutors. The roles can be reversed, i.e. speakers can be interlocutors, and interlocutors can become speakers. However, in classrooms, the two parties of teachers and students are rather fixed. Relatively more authority and power contribute to the asymmetry of interaction pattern of teachers and students. In most L2 classrooms around the world, IRF (Interaction, Response and Feedback; see Sinclair and Brazil 1982 for more detail) is the norm, in which the teacher dominates the turns. In a naturalistic context, an IRF pattern is rarely the case if ever encountered. In addition, in the classroom, it is common for teachers to codeswitch to fill students' lexical gaps, a phenomenon that is not common outside the classroom, even if sometimes it might occur. Guthrie (1987) further adds a few distinguishing features of L2 classroom:

> To discuss the classroom as a language acquisition environment, we must account for circumstances unique to the classroom—the structural nature of classroom discourse, the limited choice of conversation partners, the effect of written support on spoken interaction, and the like—and we must recognise that certain basic conditions of naturally occurring discourse, such as participants' mutual agreement to be engaged in the conversation, cannot be taken for granted in the classroom.
>
> (Guthrie 1987:190).

Despite the belief that the classroom discourse pattern is less natural, a

number of researchers concur that FL classes can be viewed as emerging multilingual speech communities as it retains its own distinctive rules and norms. In such a multilingual speech community like the classroom, of which learners are a part, developing bilinguals can take part in the speech community of a classroom, even if they do not use their second language outside the classroom. This concurs with the notion of 'multicompetent language users' (Cook 1999:185). Thus, the notion of ideal and balanced bilinguals discussed earlier in 2.1.4 should be suspended, as they are not appropriate for many multilingual speech communities because speakers use their languages in very different domains.

The underlying assumption of the argument that the classroom is an emergent bilingual community probably is the belief that codeswitching behaviours in L2 classrooms could be treated as equally natural and legitimate as codeswitching which occurs in bilingual and multilingual environments. Therefore, FL students in the present study could be considered emergent bilinguals. Such developing bilinguals could take part in the speech community of a classroom, even if they do not necessarily use their second language in other domains of their lives.

There is virtual consensus in the literature on codeswitching behaviour among bilinguals in naturalistic settings (Poplack 1980, 1988; Tay 1989; Myers-Scotton 1993) and in the bilingual classroom setting (Canagarajah 1995; Lin 1996) that codeswitching is a bilingual competence and not a deficiency. It can be employed as a form of communication strategy which helps to put

across meaning. This positive appraisal of switching may provide some theoretical underpinnings for the legitimising of L1 use in the L2 classroom, a phenomena which used to be depicted negatively as 'unfortunate recourse to L1' (Macaro in progress). Thus, it may be fruitful to investigate to what extent naturalistic codeswitching and classroom codeswitching resemble each other in terms of why they occur and what function they perform in the two contexts. In other words, it is important to ask whether naturalistic codeswitching is similar to teacher codeswitching in 'broadly communicative' classrooms where the primary objective is the promotion of L2 proficiency (Macaro in progress).

Summary of 2.3

In sum, these codeswitching (or L1) theories from different angles and theoretical traditions have begun to provide valuable insights into the contentious issue of codeswitching in the L2 classroom, though these presumptions remain largely untested empirically. Below we move to the review of empirical evidence of the issue.

2.4 Quantity of L1 and L2 use

Empirical studies dealing with codeswitching in the L2 classroom have focused on the following themes:

1) Measuring and quantifying the use of L2 and L1.

2) Describing why codeswitching takes place across different educational settings or classifying the functional use of codeswitching.

3) Investigating and documenting the beliefs about, and attitudes toward, codeswitching from both teacher and learner perspectives.

4) Measuring the impact of codeswitching on L2 classroom interaction, L2 learner strategy development and learners' achievements.

In this section, studies which focus on theme 1 will be examined. The proliferation of interest in calculating the amount of codeswitching in the FL classroom is probably related to the growing belief that teachers are the mere providers of the input which is known to be necessary (though not sufficient alone) for acquisition to occur, the more L2 is used by teachers, the more conducive the linguistic environment is to students. In other words, the quantity of L1 and L2 is employed as the yardstick to measure or describe the quality of the linguistic environment.

The methodology utilized by research on the quantitative distribution of L1 use is primarily comprised of two kinds. One type elicits data via direct classroom observation, while the other is reliant upon elicitation of perceptions and beliefs from those who make the estimation based on their experience. The former kind is predominant, as most studies reviewed in this chapter are based on classroom observation. Both kinds have strengths and weaknesses in terms of validity and reliability, and that the choice of method should be dictated by the particular research objectives.

Studies that have measured the quantity of codeswitching used by teachers through direct observation include the following ones: Guthrie 1984; Duff and Polio 1990; Macaro 1997, 2001, Neil 1997; Turnbull, 1999; Arnett 2001; Macaro and Mutton 2002; Rolin-Ianziti and Brownlie 2002. These studies differ in their respective frameworks of analysis. To illustrate, some studies employ the sign sampling approach to analyse data which codifies the precise nature of the classroom activity every time a signal is provided at regular intervals (e.g. decide which language the teacher stays in , L1 or L2 , every five seconds of viewing the videoed lesson), while others adopt a category approach to analysing data, which provides frequency counts of the occurrence of a particular class phenomenon or event (e.g. count the number of times in a lesson a teacher makes reprimands in L1). For discussion of the strengths and weaknesses of these two approaches, see Chapter Three. Studies based on each of the two approaches will be reviewed respectively. First to be reviewed are the studies which employ the timed analysis approach.

2.4.1 Studies based on sign sampling

Probably one of the earliest studies on the amount of codeswitching was that conducted by Wragg (1970), who measured the interaction pattern between student teachers and their students in their first twenty minutes of FL (either French or German) lessons in southwest England. The measure was achieved by tallying on a category system every three seconds. Using 3-second sampling technique, Wragg (1970) discovered that 59% of total talk was in L2, of which 64% was spoken by the teacher. However, when examining these findings, it is important to bear in mind that they were based on the

Such a high variability in L1/L2 use identified in their 1990 study prompted the researchers to look for what lay behind the ratio of L1/L2 use four years later (Polio and Duff 1994). They first discounted the teacher's level of English proficiency as a factor influencing L1 and L2 use on the grounds that all were either fluent in English or balanced bilinguals. Without analysing all of the teacher interview data, they selected three critical cases which demonstrated rather different behaviours in the use of L1 and L2. One represented the highest user of L2, another the lowest, and the third represented a mixed use of L1 and L2. The highest provider of L2, who used only one word of L1 in two lessons, admitted that his practice was shaped by his teacher training experience, policies for excluding L1 use and his predilection for a direct method. The second teacher used predominantly L1, citing L2 forms occasionally before explaining them in L1, a style typical of a teacher operating in a grammar translation framework. Furthermore, they discovered that L1 and L2 use was not influenced by length of teaching experience. Thus, they concluded that variables such as language type, materials, formal teacher training, departmental policy, and lesson content were found to interfere with the use of L2 or L1 in the classroom.

Another study, based on sign sampling, is that of Neil (1997), who collected video observation data of 400-minutes of lessons from 10 German as a FL teachers in a secondary school in northern Ireland. Analysing slightly more than one third of the data based on a 10-second sampling technique, he found that teacher L2 use varied between 97.5% and 33.1% as a proportion of

lesson time, and teacher L1 use ranged from 0.8% to 42.8% as a proportion of lesson time. Based on the findings, he further concluded that very few teachers used L2 exclusively and that they seemed to have a clearly defined reason for affirming their appropriate use of L2. He also revealed the fact that lack of substantial use of the TL by students made the class somewhat teacher-dominated, a finding that concurs with Mitchell's study (1986). However, Neil's study suffers from a number of problems. One problem is related to his decision to disregard a large amount of data in the analysis which would seem to be ill-advised, there being no explanation as to why 50% of recorded data was not used. Another problem relates to the sampling techniques used for data analysis. As a sampling decision of every 10 seconds was made, it would be questionable as to whether this would be short enough to pick up the quick burst of codeswitching which is likely to take place within 10 seconds. Such disparity in the sampling intervals makes it difficult to compare the results both of the above studies and of those studies reviewed below.

The following two studies (Macaro 2001, and Macaro and Mutton 2002) took place in secondary schools in southwest England. The first focused on student teachers, while the second focused on more experienced teachers. The analysis of data from both studies, based on 5-second sampling, revealed the low level of teachers' L1 use across lessons, i.e. 4.8% as a proportion of the lesson, and 6.9 % as a proportion of the teacher talk in the first study; 5.5% as a proportion of interaction time, and 5.0% of the total lesson time. Such low level use of L1 by both teachers and learners led them to suspect that total

exclusion of L1 was indeed necessary for L2 classroom teaching. One strength of these studies is that unlike the other studies in the literature, the correlation between the key variables related to L1/L2 use by both teachers and students was calculated. No significant correlation was found to exist between teachers' and students' use of L1, a finding which does not lend support to the popular belief that teacher L1 use lead to the increase of student L1 use. The finding led Macaro to conclude:

> ...we are a long way from being able to claim that increased use of the TL leads to improved learning. The fact that no study so far, to my knowledge, has been able to demonstrate a causal relationship between exclusion of the L1 and improved learning should lead educationalists and practitioners to avoid, as yet, strong claims for the effectiveness of L2 exclusivity in classrooms where learners share the same L1.
>
> (Macaro 2001:544,545).

Although all of the above studies employed the timed analysis approach for quantifying L1/L2 use, i.e. to mark which language was being spoken during certain time intervals, their outcomes varied greatly across studies. Excluding other factors, in respect of the method of analysis, these studies tend to adopt the sampling interval of timed analysis at random, thus rendering the comparison of these results virtually impossible, and as a consequence, shedding little light on the issue and the practice. Macaro (1998a, 2001b) provides a detailed critique of the previous studies of L1 and L2 in classrooms based on the sign systems which vary with the interval time; for example, Wragg (1970) sampled every 3 seconds, whereas Neil sampled every 10 seconds. Polio (1990) sampled every 15 seconds, while Macaro (1998a) sampled every 5 seconds. The researcher in the present study opted

for sampling at 5-second intervals. The reader may ask whether sampling with shorter intervals pertains more closely to reality. However, as the pursuit of proximity to reality is impracticable, the issue of how to balance practicability and accuracy was resolved by placing the sampling's reliability on a continuum, with the concern for practicability and the length of sampling at two opposing ends. Thus, the adoption of a middle position appeared to be preferable to one that was biased more to one end than another. For this reason, the sampling choice of 5 seconds in Macaro's study (1998a) appeared to be the most appropriate of all options. Therefore, timed analysis, if employed in a more controlled way in terms of its sampling frame, i.e. the sampling interval time is standardized, may be more capable of yielding fruitful outcomes for measuring codeswitching distribution across different programme contexts. Below let us turn to a number of studies employing the category sampling as its method of analysis.

2.4.2 Studies based on category sampling

The category approach is employed to analyse the data in the following studies: Guthrie 1987, Duff and polio 1994, Macaro 1997, Turnbull 2000, Jinlan Tang 2002, Rolin-Ianziti and Brownlie 2002, Liu et al. 2004, Kim and Elder 2005. This approach, as demonstrated earlier, refers to the provision of frequency counts of the occurrence of a particular class phenomenon or event; for example, the number of times in a lesson a teacher makes reprimands in L1. A number of empirical studies utilising this approach are presented below.

Guthrie (1987) examined university level FL lessons delivered by six

university graduate teaching assistants. For each of the six classes, the percentage of teachers' French and English and student talk versus teacher talk was established through word count. He discovered that in general, the use of L1 (English) was rather low (the average L2 French use in all six classes being 85%), with the exception of one teacher. He classified lessons into three phases: form-focused, content-focused and exercises focused. He then ranked the teachers in terms of the L2 French used in the class, the amount of student talk and the number of content-based activities used by each teacher. With the exception of the fact that two teachers were very similar in all three aspects, the remaining teachers varied greatly in their patterns. Such a varying pattern of quantitative data led Guthrie to resort to a detailed qualitative analysis of the transcript to look for the answers as to what lay behind the variation. She concluded that it was less straightforward to determine the quality of linguistic environment simply by means of generalisation as to topics, teaching techniques, activities types, or even codeswitching distribution. Perhaps one methodological weakness worth pointing out in her study is that we are only told that each of the six classes was videoed on two occasions. We are not told exactly what kind of occasions and how long each occasion lasted; neither do we know whether the percentage of L2 French in class pertained to the lesson or to teacher talk.

It is interesting to note that four years after Duff and Polio conducted their timed analysis of L1 and L2 distribution by employing sign sampling (Duff and Polio 1990 reviewed in 2.4.1), re-analysed the same data via category approach i.e. by counting the utterances (Polio & Duff, 1994: 325), In

retrospect, they criticised the weakness of the timed analysis method, and on the basis of the discrepancy detected, they posited that a timed-based coding scheme may create more chance of landing on an L1 utterance as L2 utterances tend to be shorter than L1 ones. This criticism of the timed analysis approach in general is perhaps less convincing. While it may be true that L1 utterances are slightly longer than L2 utterances, the interval time of 15 seconds may be so long that it can accommodate a number of quick language alternations during this period. If the sampling interval time is reduced from 15 seconds to, say, 5 seconds, as in the present study and Macaro's (1998a, 2001, 2002), a sampling frame, which is practically more feasible than 3 seconds, could possibly generate a more accurate picture of the pattern of the quantity of L1 and L2 use. Indeed, as Duff and Polio (1994) admit, the weakness of counting the number of utterances in each language is not necessarily preferable to other techniques, precisely because it does not take into account the length or quality of the utterance. Counting words is also problematic in cross-linguistic comparisons because of different orthographic, morphological, and syntactic systems; a word in an agglutinative language may be comparable to a sentence in another type of language.

Apart from the studies conducted in a university setting, Macaro (1997) looked at secondary French classes in southern England and Wales, employing a category approach to analyse the data. He found the average total L1 per hour for student teachers, inexperienced and experienced teachers to be 27.57 %, 23.58 % and 23.14 % respectively. Relating teachers' L1 activities, pupils and teaching experience, he established three theoretical

positions in terms of the use of L1 and L2, namely, 'virtual all', 'maximum' and 'optimal', which we have reviewed in 2.2. In line with other studies that utilise the category approach to analyse data, Macaro (1997)'s study also experienced problems with respect to the accurate categorising of activities. Consequently, no result in terms of the quantity of L1 and L2 use was reported in his study as it is probable that the categories in the logs used in the study generated a number of difficulties (Macaro 1997:211). For example, in Macaro (ibid), a decision had to be made as to what constitutes an instance. It was decided that two observers were needed to separate the lesson into activity segments such as: teacher giving instructions for an activity; teacher giving directions or changing focus; teacher giving feedback on a reading comprehension. Thus, even if one segment was broken by several codeswitches, it would only count as one instance. This by no means solved the problem of accurately recording all instances of codeswitching, although it did give a fairly clear idea of what areas cause the most difficulties in attempting to sustain L2. In order to record codeswitching accurately, there would seem to be a need for a more sophisticated model of lesson categorisation, one which has a discourse analysis structure as its scaffolding. Similarly, Macaro (1998a) has identified the difficulties of coding reliability with the category system. He argues that when a teacher reprimands a student in L1, it is less straightforward to demarcate the boundary between the start of the reprimand and the end. If it were identified by its L2 boundary, a sampling of a larger interval, say 10 seconds, could provide the number of quick short bursts of 'reprimand in L1'. In addition, he points out that if it were identified by a functional objective, this would also be problematic, as

the L2 might be embedded in the L1 in some cases.

Another study of L1 /L2 use by Turnbull (1999) was conducted in four secondary core French (French as a second or FL, which is different from immersion in which French is the medium of instruction) teachers. He compared students' results of tests based on their teachers' instructional differences observed in the implementation of a multidimensional project teaching period. The teachers' discourse was broken down into episodes and coded in real time by employing the MOLT observation scheme. A considerable variance in teachers' use of L2 French by these four teachers, ranging from the highest at 89% to the lowest at 4%, was identified. In addition, a very small amount of student input, ranging from 0.4% of the time to none, was observed. He concluded that student outcomes are likely to be influenced by teachers' use of L2 French. Though this study was not directly related to teachers' use of L1, and the conclusion was tentative, the value of this study may lie in its attempt to link the students' outcomes with teachers' use of TL, which was not evident in other studies reviewed here. While acknowledging the impact of L2 on students' learning, this study made no mention of any beneficial pedagogical value of L1. Again, the sampling based on the macro category in this study and the coding conducted in real time in the classrooms may serve to make the coding more subjective.

A study by Tang (2002) on teachers' L1 and L2 use is of much interest and relevance here, as it was conducted in university level English classrooms in Mainland China, a context which roughly matches the present study, even

though the student participants were English major students. The classroom observations of three 50-minute reading classes were analysed by categorising the number of times and occasions that Chinese was used in the lessons. The result shows that the greatest use of Chinese, 13 times, was found in the explanation of the meaning of words. The study appears to have the following problems: first, the reason for selecting reading classes only are not clearly defined. Second, the sample size would appear to be small. Despite the large number of teacher participants in the questionnaire, only three lessons were videoed and analysed, i.e. only one lesson from each teacher. This makes it difficult for the study to be generalisable, as it does not provide statistics on the timed distribution of teacher L2/L1 talk, and only refers to the the number of occasions of teacher L1 use for certain fucntions. We are not told as to how 'occasion' is defined and operationalised. Thus, we know little about the details of how much L1 and L2 was used and their distribution in terms of their pedagogical functions.

Unlike other studies, much less variation in L1 and L2 use by teachers was found in Rolin-Ianziti and Brownlie's (2002) research, which studied the French classes of four professors in Australia. They found the highest teacher L2 talk to be 100% and the lowest to be approximately 70% in both studies, with an average of 91.2 % L2 use. The percentage of L1 and L2 use was arrived at by counting words rather than by using timed analysis. Unlike the majority of other studies, all four teachers used the L1 relatively infrequently, with the range of L1 use among these teachers also being quite low (from 0% to 18.2%). However, it must be pointed out that we do not know whether this low variation in use would still hold true if the category sampling were

replaced by a different sampling method, i.e. timed analysis. In addition, no notable differences in students' use of L1 on the basis of the instructors' L1 were observed. The low ratio of L1 use found in this study is similar to the findings of Macaro's study (2001a), even though the two studies were conducted in two different programme contexts: one at secondary school level and the other at university level.

Following the same method of analysis used in Rolin-Ianziti and Brownlie (2002), the study by Liu et al. (2004) analysed data from 13 videoed lessons of Korean secondary school FL classes. The result shows that the teachers in this study used L2 in widely varying amounts, ranging from as little as 10% to as much as 60%, and the average use was rather low (32%). A range of 53% to 58% of teachers and students considered the amount of TL use also to be lower (32%) than appropriate. There are some weakness related to this study. The data collection procedure is not explicitly stated, as we do not know the extent of the researchers' involvement in the data collection; for example, whether or not they were present at the research site. The sampling decision of using one lesson by one teacher may also be a factor influencing the representativeness of the data in the study.

Another more recent study, that by Kim and Elder (2005), was conducted on seven native-speaker teachers of the four FLs (Japnese, Korean, German and French) at five secondary schools in Auckland. In their study, data collected via audio-recording beginner classes at Year 9 level was analysed using category approach. The result showed a high level of variation in the

proportion of L2 use, ranging from 23% to 88%. Considerable variance existed across teachers both in the amount of time used for codeswitching and the amount of L2 used. In addition, there was variance in the pedagogical functions frequently employed by the teachers as well as in the language they chose for those functions.

Finally, before closing this review of empirical studies on the quantity of L1/2 use, worthy of report here is a unique study by Levine (2003) which is not based on actual classroom observation. In response to Macaro's (2001: 545) suggestion that 'future research needs to establish some principles for codeswitching in FL classrooms by understanding its functions and consequences', Levine undertook a large scale questionnaire study of students and instructors' beliefs and attitudes about TL use, first language use and anxiety. The participants included 600 undergraduate FL students and 163 FL instructors. In the study, he administered questionnaires to solicit information about teachers' use of L1 and L2 based on their self-report rather than classroom observation. The findings seem to suggest that more L2 is used than previous studies report, according to the responses of both teachers and students. The reported amount seems to vary between teachers and students, and also varies across different communicative contexts. One may argue that as the data reported is based on estimation rather than on direct and systematic observation, which the majority of other studies rely upon, it may be difficult to compare its findings with those of other studies. However, this study has considerable value, for example, one of its contributions was the introduction of the notion of 'Target language anxiety' related to the use of

L2 for the purpose of quantifying students' reactions to codeswitching, a construct which could be used in future research.

Summary of 2.4

What we can learn from this snapshot view of empirical studies is that the quantitative ratio of L1/L2 use is not uniform across studies, and seems to be affected by complex factors. While it is useful to understand the 'quantitative context' (Macaro 2001:533) when discussing the quality of the linguistic environment of a classroom, these quantitative estimates should be interpreted cautiously, since they vary depending on the viewpoints of the particular researcher and methods of data collection and analysis used (Chaudron 1988).

In the next section, the review will focus on codeswitching functions in L2 classrooms.

2.5 Functions of teacher codeswitching in L2 classrooms

It has been identifierd in empirical studies that teacher codeswitching in L2 classrooms has multiple functions encompassing pedagogic, cognitive and social dimensions, each of which will be examined in the following studies.

A study of 59 French teachers in UK secondary schools undertaken by Mitchell (1988) revealed that the participating teachers preferred to use English (L1) for a range of classroom functions, including grammar

explanation and disciplinary matters. It also disclosed that 'instruction' for explaining a new task or activity in a lesson, was the most difficult function for these teachers to perform in their TL.

Similar functions are also found in teachers in the US university FL classroom. Polio and Duff (1994) classified teachers' use of codeswitching as mainly to explain grammar, to manage the class, 'to index a stance of empathy' or 'solidarity' towards students, to translate unknown vocabulary items, and to help students when they have problems in understanding.

Another two studies, both conducted in Mainland China and published in the same year, examined teachers' codeswitching in the university classroom for students whose English was their major (Ho and Zhao 2002; and Jinlan Tang 2002). In the first study, conducted by Ho and Zhao (2002), pedagogical and social functions were found to exist. Pedagogical functions include clarification, efficiency and highlighting while social functions include identifying praise, showing disaproval and giving refusal. In the second study, Tang (2002) showed that Chinese (L1) was used by the three teachers to give instructions and to explain the meaning of words, complex ideas, and complex grammar points. These three class observations indicate that Chinese is used on occasions when English explanations fail to work; hence, L1 plays a supportive and facilitating role in the classroom.

A number of effective functions are also identified in the study by Liu et al. (2004) in the South Korean secondary school context reviewed earlier. They

include:

1) Explaining difficult vocabulary and grammar;
2) Asking questions to check comprehension
3)providing directions and instructional, comments
4)providing compliments and confirmation
5) Giving compliments or confirmation;
6)personal talks and jokes
7)Managing students' behaviour;
8) greetings

(Liu et al. 2004:617).

According to Liu et al.(2004)'s study the frequency counts of these uses indicate that these functions are used on a continuum, ranging from the highest use of codeswitching (1) to the lowest use (8).

As already mentioned, these studies above contain not only pedagogical functions, but also social functions. However, the social functions of codeswitching are elaborated upon in greater detail in the following studies.

Canagarajah (1995) identified codeswitching used in ESL classrooms in Jaffna as serving various macro and micro functions. On a macro level, codeswitching, as a vehicle for compromise, may solve conflict confronting the community. On a micro level, codeswitching can perform functions such as classroom management and content transmission. Based on classroom observation, she ascertained that the L2 (English) and L1 (Tamil) served different interactional functions. L2 was used primarily for interaction related to the textbook and the lesson, while Tamil, the L1, was used for all other more personal and unofficial interactions. She further suggested that language

alternation in the classroom might prepare students for larger outside classroom multilingual societal communications, by revealing the values behind each code and enabling the students to discover how to negotiate identities via codeswitching. Thus, the ESL class becomes a site for the skilful negotiation of identities, roles, values and group membership held by teachers and students.

Another study involving younger learners (preadolescents and young adolescents in primary school) was conducted in primary school immersion classes in the US and Canada by Tarone and Swain (1995). Drawing on the evidence from classroom observation and interviews, they suggest that for the young learners they researched, the L2 was the institutional language of academic discourse, i.e. the official language of the classroom, while the vernacular version of the children's L1 was the language of peer-to-peer social discourse.

This parallels Hancock's (1997) notion of on-record and off-record speech, where one language serves as the official language of classroom discourse, while the other is more personal and therefore, off-record. His distinction of on-record and off-record discourse may resemble Canagarajah's official and unofficial uses of language reviewed earlier. When learners are performing in the context of official class activities, they are on-record, whereas asides and other more personal utterances are off-record. He reported that code choice and volume change were both contextualisation cues used by learners to signal whether their utterances were on- or off-record. He also addressed

social functions of language in FL classes by speaking of different layers of discourse, and suggested that the unmarked code for each layer might be different. He claimed that the unmarked language choice varies according to the layer of discourse, i.e. whether the speech is meant to be on- or off-record; in the classes he observed, the unmarked code for off-record speech was the learners' L1, while the unmarked code for on-record speech was the L2.

Unlike the above studies, which attempted to establish the social roles of L1 and L2 use between teachers and students inside the classroom, Antón and DiCamilla (1998) conducted qualitative analyses of students' interaction during pair work and discovered that L1 use provides, through collaborative dialogue, an opportunity for L2 acquisition to take place. This is aided by three main functions: 'construction of scaffolded help, establishment of intersubjectivity, and use of private speech' (1998:237). In other words, learners' L1 satisfies significant inter-and intrapsychological needs. On the external plane (interpsychologically), switching to L1 serves communicative and scaffolding functions. That is, learners use their shared native language to accomplish the pedagogical tasks together. L1 also helps learners to act strategically to tackle the problem and stay focused on the task, which is also the theme of the present study. On the internal plane (intrapsychologically), the L1 becomes the medium for personal speech, that is, self-directed speech used by the learners while thinking through the cognitively complex task. In brief, for the participants studied, native language served both cognitive and social needs.

In the next section, we will consider studies which report teachers' perceptions of, and attitudes toward, codeswitching.

2.6 Teachers' beliefs about codeswitching in L2 classrooms

The following review is an account of both teachers' perceptions of their codeswitching behaviour in the classroom and the possible factors that may influence their behaviours of language choices. The purpose in considering teachers' opinions about codeswitching is to understand in more depth the pattern of their codeswitching behaviour by obtaining another layer of evidence which would otherwise be understood only partially by means of classroom observation. For this reason, studies to be reviewed here differ from those reviewed in Section 2.5, which were based on data collected from classroom observations rather than questionnaire and interviews, as is the case in the present section. It is perhaps to be expected that the results from the self-reports of teachers' beliefs and attitudes may have some discrepancies from the empirical observations reviewed earlier, for what a teacher claims to do may sometimes conflict with what is actually observed in the classroom.

2.6.1 Reasons for, and purposes of, teachers' codeswitching

Kharma and Hajjaj (1989) conducted studies of EFL secondary teachers' codeswitching in Kuwait via classroom observation, teacher and student questionnaires. They found that the use of L1 was for various purposes: for

example, for explaining new and difficult items, grammatical points, and difficult questions, for explaining instructions, reading attendance lists, advising late-comers, conducting part of a discussion, assigning homework, explaining reading passages, giving everyday instructions, explaining lesson procedures and greetings and leave-takings. In addition, most teachers believed the use of L1 was for what they regarded to be beneficial for the learners. A few teachers also believed that the use of L1 was suggested in the course books. Very few reported that their use of L1 was prompted by the direction of their supervisors. This would suggest that teachers' use of L1 stemmed from their own conviction rather than from external influences.

Another study that is methodologically proximal to the above is that of Macaro (1997). He used similar instruments such as surveys, semi-structured interviews, and classroom observation to explore L2 and L1 use amongst experienced, inexperienced, and student teachers of FLs at the secondary level in England and Wales. The majority of teachers reported that L2 was useful and important for giving basic instructions and feedback, and a near majority (47%) indicated the same for organising classroom activities. However, these teachers preferred their L1 for discipline, socialising, or relationship building and for explaining difficult grammar.

A similar pattern of teachers' opinions about codeswitching was also found in the study by Liu et al. (2004) reviewed in the previous section, which discovered that teachers' codeswitching followed certain patterns, although it was not often based on clearly defined rules. The teachers used English primarily to greet, give directions, and ask questions, and used Korean (L1)

principally to explain grammar and vocabulary, provide textual background information, and highlight important points. They also often switched to Korean when they felt their students had difficulty understanding them or when they had trouble expressing themselves in English. However, although the teachers in general seemed to follow these patterns and principles in codeswitching they sometimes used Korean for reasons that were not evident.

Published in the same year as the above study, Liu and Jiang (2004) in Mainland China conducted a study of first year English major students by analysing forty minutes of classroom audio observation. It was found that the purpose in teacher codeswitching was to reduce social distance; to relax learners' cognitive pressure; lessen their anxiety; to improve the quality and quantity of input; to avoid communication breakdown; and to consolidate the teacher-student relationship (Liu and Jiang 2004:289).

In a review of relevant empirical studies that collected data from teachers, Macaro (2005) summarises the reasons for, and purposes of teacher L1 use across learning contexts:

> 1. To build personal relationship with learners (the pastoral role that teachers take on requires high levels of discourse sophistication);
> 2. To give complex procedural instructions for carrying out an activity;
> 3. To control pupils' behaviour;
> 4. To translate and check understanding in order to speed up learning due to time pressure (e.g. exams);
> 5. To teach grammar explicitly.
>
> (Macaro 2005: 69).

In 2.6.2 we will examine the factors influencing teachers' use of codeswitching.

2.6.2 Factors related to teachers' use of codeswitching

In a naturalistic context, Grosjean (1982:136) lists a number of factors influencing language choice (see Table 2).

Table 2: Factors influencing language choice (Grosjean 1982:136).

Participants	*Situation*	*Content of discourse*	*Function of interaction*
Language proficiency Language preference Socio-economic status Age Sex Occupation Ethnic background History of speaker's Linguistic interaction Kinship relation Intimacy Power relation Attitude toward languages Outside pressure	Location/setting Presence of monolinguals Degree of formality Degree of intimacy	Topic Type of vocabulary	To raise status To create social distance To exclude someone To request or demand

Some of these factors (though not necessarily all) would also affect how teacher codeswitch in L2 classrooms as well. For example, studies that look at teacher codeswitching have identified that learners' ability and age seem to be the catalyst for teachers' recourse to L1. For example, low ability and older learners, as Macaro (1997, 2000, 2005) postulates, result in greater use of L1 or codeswitching by teachers than young and high ability learners. Similarly, Chaudron (1988), in a review of research, suggests that variance in the extent of L2 use seems to be related to learner types and the classroom.

Drawing upon their studies, Kharma and Hajjaj (1989), together with Dickson (1996) suggest that students' level of competence is a major factor influencing the use of L1, stemming from their fear of not being able to convey their message, resulting in students' loss of interest and motivation. In a study to examine the Grade 9 core French classroom, Arnett (2001) also reports that, the participating teacher stated that she felt that she needed to use the L1 as a reference point to help the students, especially those with learning disabilities, as it can process the L2 information more easily and readily.

Factors other than ability and age of learners determining the codeswitching behaviours may include the language contrast. Rolin-Ianziti and Brownlie (2002) studied the French classes of four professors in Australia and found that intra-sentential translation and language contrast were the most common reasons for codeswitching. The authors hypothesise that teachers who codeswitch within the same sentence to contrast the L2 and the L1 may help to avoid negative transfer. Strategic translation may contribute to enhanced input, drawing learner attention to specific features of the L2 and, hence, promoting vocabulary uptake.

According to Franklin (1990), activity types may determine why teachers found it so difficult to use L2 with students who were learning French in secondary schools in Scotland. Explaining grammar, discussing language objectives and teaching background were the types of teacher-led activities which appear to have caused most problems. Giving activity instructions was seen as something that could be done in L2 but with difficulty.

Disciplining remained a fairly difficult activity to carry out in L2.

In addition, there seems to be some conflictual views towards teacher's proficiency in L2 as a factor influencing their codeswitching behaviour. On the on hand, Dickson (1996) conducted a questionnaire study to ask teachers to report factors influencing their use of L2. The first factor was the teacher's proficiency in the spoken language. On the other hand, Polio and Duff (1990) drew on the fact that the low ratio of L2 use reported even among their native speaker teacher participants suggested that teacher proficiency in the L2 may not be the major determinant of the amount of L2 used.

All these but learner related factors are found in Duff and Polio's list (1990). The factors that they believed affected the amount of instructor L2 use include 'language type, department policy on TL use, lesson content and objectives, pedagogical materials, and formal teacher training' (Duff and Polio1990: 161).

2.6.3 Teachers' attitudes towards the use of L1

According to Macaro (2005), teachers' attitudes towards the use of L1 have been remarkably similar across age phases and educational settings. The majority of teachers view the use of L1 as recourse to L1 rather than codeswitching . This observation has been confirmed in the following review of the available studies which document the teachers' beliefs about, and attitudes toward, codeswitching.

Mitchell (1988) reported that while her participants acknowledged that it would be feasible to use their L2 for 'organisational matters' (e.g. the physical environment of the classroom, assignation of seats or speech turns), they failed to do so in many instances. She argues that the reason for this reluctance was the dominance of English as a powerful means of communication and its 'ever present availability' for immediate classroom transactions (Mitchell 1988:4). A further explanation of this reliance on L1 offered by a number of participating teachers in Mitchell's (ibid) study was their limited fluency in the L2.

However, research by Duff and Polio (1990) reports a low ratio of L2 use, even among their native speaker teacher participants, which suggests that teacher proficiency in the target language (TL) may not be the major determinant of the amount of TL used. Ambivalence in this respect may be best illustrated in Polio and Duff (1994), in which they analysed interview data and discovered a lack of consensus in teachers' attitudes toward the use of L1. With regard to teachers' attitudes towards L1 and L2 use, the results varied considerably as to why they did or did not use the L2 more often. Those who favoured greater use of the L2 did so for different reasons. Two of them believed that such use was effective, and another two had theoretical convictions for conducting classes rich in L2. However, a number of teachers had reservations about using more L2 than they currently did. Some teachers restricted their use of L2 for the sake of their students' comprehension, while others who taught facts about culture, history and language, considered the

use of L1 to be normal.

Summary of 2.6

What Macaro (2005) aptly summaries is that there is a virtual consensus among teachers of all levels that L2 should be the predominant language for the L2 classroom, and that failing to produce it will invite criticism and a sense of guilt. This attitude and belief, as he argues, is not based on evidence from cognitive development, but on realisation of the non-existent reality of L2 exclusivity in the L2 classrooms in which these teachers work on a daily basis. This belief seems to be echoed in teachers from all kinds of national and cultural backgrounds. He finally points out: that the guilty feeling by many teachers when they they resort to the L1 is not 'a healthy outcome of a pedagogical debate' (Macaro 2005:69).

2.7 Teachers' codeswitching from learners' perspective

The evidence of the learner's perspective is 'scant and unfocused' (Macaro 2005:70). However, in order to have a better understanding of teacher codeswitching, the learners' perspective cannot be neglected. This is the focus of the present study. In other words, the present study aims to discover learners' strategic reactions toward teacher codeswitching as this may provide indirect evidence for the effectiveness of codeswitching.

The studies which attempt to measure the effect of codeswitching are scant as well. To date, there is only one piece of evidence which has tested empirically

the hypothesis of an influence of L1 use on acquisition. The results are significant, indicating that a 'mixed' discourse may be beneficial to student uptake in vocabulary and grammar (Kaneko1992:158). However, the findings are limited to one institutional context and cannot be generalised before experiments are repeated in other environments. Similarly, there are also some on-going attempts to determine the impact of teacher codeswitching on acquisition. Macaro and Meng (in progress) are making an initial attempt to probe the issue of the effect of teacher codeswitching on learners' vocabulary acquisition by providing empirical evidence via a quasi experiment involving 159 Chinese high school EFL learners. Although the results are inconclusive, they do, at least, provide evidence that codeswitches of this type have no obvious detrimental effect on one aspect of learning. Another piece of ongoing research (Tian in progress) aims to measure the effect of codeswitching and non-codeswitching on vocabulary acquisition. Apart from these two studies, there is little attention on measuring the effect of codeswitching on L2 learning except for a small number of studies in the literature which investigate the nature of learners' attitudes and beliefs toward codeswitching.

According to Kharma and Hajjaj (1989), more than 200 questionnaire responses were collected from Arabic speaking students of English in secondary schools in Kuwait. Results showed that despite a very small number of students (5.4%) having reservations about the use of the mother tongue, most (81%) thought that the use of the L1 helped them to understand the content of the class better; they felt happy and relieved when they were

allowed to use the L1, 'especially when they know a given point but are unable to express it in English' (1989:229). Such a reaction was also verified by teachers' comments.

Another study collected evidence from university students in the USA (Duff and Polio 1990). When asked about how happy they were with the current amount of L1 in their class, there was a distinct lack of consensus in the reporting by student respondents. Between 71% and 100% of students reported that they were happy with the current amount of L1 in their class, regardless of the actual amount in their classes. This, Duff and Polio concluded, indicates that students were not particularly concerned about the TL use. In addition, they also found that there was a small number of students (9%-18%) who were immersed in the total L2 class environment that desired their teachers to use more L1. However, learners in the other classes did not share the same view. This request for more L1 use may be linked to the idea of 'TL anxiety' (Levine 2003). It implies that students in the context of L2 exclusivity have a preference for L1, although the extent to which they would like L1 to be used is not known. However, it may be worth pointing out that the student questionnaire used in the study is simplistic in its design, which may raise questions about the validity of the study's findings.

The source of students' unease about L2 exclusivity was revealed in Macaro (1997)'s study as well. He collected the attitudinal responses to codeswitching from secondary students of French via questionnaires and suggested that students' reactions could be split into two groups: one group

comprised of more able girl students, though a minority of them, 'did not get flustered when teachers used large quantities of L2' (1997:103) and could tolerate the fact that they could not understand everything. This group even believed strongly that important information (e.g. about homework or exams) should be conveyed in L1 after having been communicated in L2. Another group, however, had strong views about the idea of L2 exclusivity. They were unable to tolerate any ambiguity in meaning, and craved the use of L1 to remove the frustration and failure to fulfil tasks set by the teachers. Such differences in reactions, as tentatively accounted for by Macaro, are less likely to be affected by factors such as teachers and instruction differences than individual learner differences.

Similar to Macaro's study examined above, a number of gender differences in the attitudes toward L2 exclusivity have been identified in studies by Stables and Wikeley (1999), and Jones, et al. (2001). The key factor related to the issue of codeswitching is the extent to which one can tolerate the ambiguity encountered in the comprehension of input from teachers. The unequal power relationship where L2 predominates has become, in the view of Stables and Wikeley (1999), a source of negative reactions to L2 exclusivity and TL in the classrooms. Though this negative attitude was found to be acute among boys, this was by no means only restricted to boys, as it could also be found in girls (Clark and Trafford 1996).

Furthermore, there are two studies which examine how teacher codeswitching affects classroom interaction. Macaro (2001b), and Macaro and Mutton (2002)

are probably the only two studies in the field to provide quantitative evidence of the effects of codeswitching by the teacher on general interaction. These two studies clearly indicate that as long as the teacher's codeswitching level does not exceed a certain limit, i.e. below around 10%, there will be no significant increase in the learner's use of L1 in the context of whole group interaction. In other words, the hypothesised correlation between teacher use of L1 and learner use of L1 does not necessarily exist. Conversely, no significant increase in the student's use of L2 is caused by the teacher's exclusive or near exclusive use of L2. Therefore, Macaro concludes that codeswitching by the teacher has no negative impact on the quantity of student L2 production. Indeed, he argues forcefully that 'expert codeswitching may actually increase it and improve it' (2005:72). Nevertheless, he also cautions that:

> There may be a kind of threshold reached by teacher use of L1 where the codeswitching resembles less a communication strategy than simply a discourse carried out entirely in L1 with only a marginal reference to the L2.
>
> (Macaro 2005:72).

What the message suggests is, apart from these initial theoretical attempts to understand the effect of codeswitching on the learning of L2, empirical evidence is needed to establish the parameter of codeswitching use in L2 classroom.

Summary of 2.7

The importance of conducting more studies that focus on the learner's perspective is encapsulated in the following quotation:

> A better understanding of the nature of classroom discourse will bring the process of contextualising the functions for which L1 and L2 are used in the classroom. However, no causal link, no matter how tentative, between input and output can possibly be posited without some evidence from one particular source, the learner himself/herself.
>
> (Macaro 1998a:111).

What we have gleaned from the above section is that in general research has only focused on teacher observation and teacher perceptions rather than directly collecting reactions from learners. Apart from eliciting attitudinal reactions to teacher codeswitching from learner perspectives,research needs to provide evidence to gauge the effectiveness of teacher codeswitching especially in terms of learning outcomes. In other words, the issue concerning the positive role of codeswitching needs to be addressed and the way such a role shall be empirically verified. For example, to what extent does the L1 actually help one to learn, and how? Concern about the direct impact of L1 would seem to be lacking here. In addition, as the studies of learners' beliefs about, and attitudes toward, codeswitching are still emerging, little, as yet, is known about their online reactions to teachers' codeswitching. This forms part of the motivation of the present study. Given the dearth of empirical studies, it is somewhat meaningful for future researchers to be oriented towards the establishment of principles of optimal use of codeswitching. In this respect, the current study seeks to deploy a retrospective protocol to elicit

the online reaction and processing of teachers' codeswitching from the perspective of the learner. In other words, it is intended to measure the effect of codeswitching indirectly.

2.8 Learner strategies

The shift in research focus from understanding the behaviour and perceptions of teachers to understanding the behaviour and perceptions of learners (especially good language learners) in SLA has led us into another important research arena: language learner strategies (LLS). In the past three decades, there has been considerable growth in LLS research (for a recent review see Cohen and Macaro 2007). Research in cognitive psychology in the 1960s contributed to the growing interest in the research of LLS. As Wenden (1987are) states "Research on learner strategies in the domain of second language learning may be viewed as a part of the general area of research on mental processes and structures that constitutes the field of cognitive science" (1987:6). O'Malley and Chamot (1990) attempted to establish a foundation for understanding learning strategies in a cognitive context. They applied Anderson's model of mental operation in general learning skill to language learning. According to Anderson (1985), there are two kinds of knowledge involved in learning. One is declarative knowledge and the other is procedural knowledge. The former is static factual knowledge, which essentially consists of knowing the 'what' of language whereas procedural knowledge consists of knowing the 'how' of language. For example,

knowing that a verb is a 'doing' word is declarative knowledge but shouting 'stop!' when somebody is about to step out in front of a bus relies on procedural knowledge.

Based on Brown and Palinscar (1982)'s model of general learning strategies as meta-cognitive or cognitive, O'Malley and Chamot (1990) divide LLS into three main sub-categories: meta-cognitive strategies (e.g. planning, monitoring, and evaluating), cognitive strategies (any mental action directly linked to language processing) and socio-affective strategies (attempts by learners to interact with native speakers and to control anxiety etc.). What follows is a brief account of how LLS have been defined in the literature.

2.8.1 How are strategies defined

Within second and foreign language education, a number of definitions of LLS have been provided by key figures in the field. Early on, Rubin (1987) state that LS "are strategies which contribute to the development of the language system which the learner constructs and affect learning directly" (1987:22). In their seminal study, O'Malley and Chamot (1990) defined LS as "the special thoughts or behaviours that individuals use to help them comprehend, learn, or retain new information" (1990:1). Later, Oxford (1992/1993) provided the following definition: "Specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective and more transferable to new situations." (Oxford 1990:8).

Cohen (1998) put a greater emphasis on language *use*. That is, strategies involved in skills such as speaking and writing in actual tasks. He therefore defined LLS as:

> Second language learner strategies encompass both second language learning and second language use strategies. Taken together they constitute the steps or actions consciously selected by learner either for the learning of a second language, the use of it, or both.
>
> (Cohen 1998:5).

Although the terminology is not always uniform, with some writers using the terms "learner strategies" (Wendin & Rubin, 1987), others "learning strategies" (O'Malley & Chamot, 1990; Chamot & O'Malley, 1994), and still others "language learning strategies" (Oxford, 1990, 1996), there are a number of basic characteristics in the generally accepted view of LLS and this will be summarized later together with the latest development in this field.

2.8.2 Claims made in strategy research

Three threads of development have been identified in the research of LLS. They are 1) attempts to define LLS 2) investigation into their impact on learning performance 3) study of the relationship between LLS and learner variables as well as other aspects of second language acquisition.

Earlier research into LLS was descriptive and was concerned principally with identifying what "good language learners" do to optimise their learning, with the hope that strategies found in good learners could be passed onto less successful learners (Rubin 1975; Stern 1980; and Naiman et al., 1978). Researchers later in the 1980s continued their investigation into the

techniques learners employed to aid their learning. An array of methods such as questionnaires, interviews and "think-aloud" procedures were used to study the data from a wide range of sources. As a result, they not only established a comprehensive list of strategies, but also concluded that LLS are the steps students take to improve their own learning, and were important to ultimate language performance. As a result, a number of researchers have advocated strategy instruction. That is, that teachers can help students identify and make good use of the strategies identified in good language learners (Oxford 1990; Graham 1997). As O'Malley *et al.* (1985) pointed out,

> Strategies training was successfully demonstrated in a natural teaching environment with second language listening and speaking tasks. This indicates that classroom instruction on learning strategies with integrative language skills and LLS can facilitate learning "
>
> (O'Malley et al. 1985:577).

Many researchers underscore the importance of training learners to optimise their learning by employing meta-cognitive, affective and social strategies. Developing LLS in these three areas can help the language learner to build up learner independence and autonomy, whereby he/she can take control of their own learning.

The outcomes of both theoretical and empirical deliberations on LLS have enabled researchers to link LLS with various aspects of L2 learning processes and claim that:

> 1. Strategy use appears to correlate with various aspects of language learning success.
> 2. There are group differences and individual differences in learner strategy use.
> 3. The methodology for eliciting learner strategy use, although imperfect, is at an acceptable level of validity and reliability.
> 4. Despite some setbacks (O'Malley, 1987; Wenden, 1987b), and some reservations (Dornyei, 1995; Lam & Wong, 2000), learner strategy instruction (or "training") appears to be effective in promoting successful learning if it is carried out over lengthy periods of time and if it includes a focus on meta-cognition.
>
> Macaro (2006:320-321).

Despite the achievement of LLS so far criticisms of LLS research also exist. For a full review of the criticisms levelled at LLS see Macaro (2006).

2.8.3 Problems with definitions, lists, and categories (Macaro 2006)

According to Wenden (1989), LLS are elusive, as in the literature, strategies have been referred to as "techniques", "tactics", "plans", "operations", "skills", "language learning procedures". Moreover, in their definition of LLS, Cohen (1998) and Stern (1992) stress the notion of consciousness. They both claim that learners choose or engage in those strategy related activities or processes consciously. Cohen (1998) goes even further and suggests that "the element of consciousness is what distinguishes strategies from those processes that are not" (Cohen 1998:4). Cohen (ibid) insists that only conscious strategies are LLS, and that there must be a choice involved on the part of the learner in listing the key features of LLS. However, other researchers express a cautious attitude by stating "LLS are often conscious"(Oxford, 1990:9). When discussing LLS, Wenden & Rubin (1987a), and Oxford (1990a) note a desire for control and autonomy of

learning on the part of the learner through LLS. Moreover, Skehan (1989) relate the goal of LLS to the transfer of a strategy from one language or language skill to another. Another point which is worth mentioning is that LLS differ from language learning skills where the latter are conceived as operating at a level above LLS, and they can be seen as the executive processes which manage and co-ordinate the LLS (Williams and Burden, 1997).

Although the current research into strategic behaviour demonstrates that strategy use is associated with learners' proficiency and with their eventual attainment, and may be affected by cultural and contextual variables, to date, researchers in this field are cautious to hail the achievement of strategies studies. Tentative attitudes towards this are expressed by Skehan (1989), and Vann and Abraham (1990), who argue that strategies research is still in its infancy. For example, a note of caution was voiced by Skehan (1989), who warned that a good language learning strategy may also be employed by less proficient learners, and recent research also suggests that a single strategy pattern is less likely to be used by effective language learners. Successful learners tend to use an array of strategies in an "orchestrated" manner (Oxford, 1990). In addition, their use is mediated by factors such as learning styles, personalities, demands of the task and the context of cultural influences. Ideal learners know how to tailor their strategy use to their individual needs and they develop combinations of strategies that work for them (Oxford, 1990). More research needs to be done to find out 1) what combined use of strategies are more effective 2) whether there is a

hierarchical structure of strategy use 3) whether strategies can be used by all learners at different stages of learning or level of maturity 4) what essential ingredients an effective training programme should have.

However, most of these attempts to classify LLS reflect more or less the same categorizations of LLS without any radical changes. Moreover, the proliferation of strategy systems has caused problems for those researchers who believe it is important to compare results across studies. Problems with these differing typologies, pointed out by many researchers include the lack of a coherent, well-accepted system for describing these strategies. Efforts are now underway to make the learning strategy field more coherent by establishing a more rational way of defining and explaining such strategies (Cohen and Macaro 2007).

2.8.4 Revising the theoretical framework on LLS

In response to the criticisms and a general consensus of a lack of theoretical rigour identified in the research literature on learner strategies, Macaro (2006) proposes a new framework within the realm of cognitive psychology and information processing, one that clearly, as he claims, establish the links between strategies with other domains of language learning and language use. Within the framework (see Figure 2), strategies are not defined in the traditional sense, but characterised as "having a series of essential features" in order to avoid semantic interchangeability and circularity of

argument."(Macaro 2006:325) which is the actual quote?

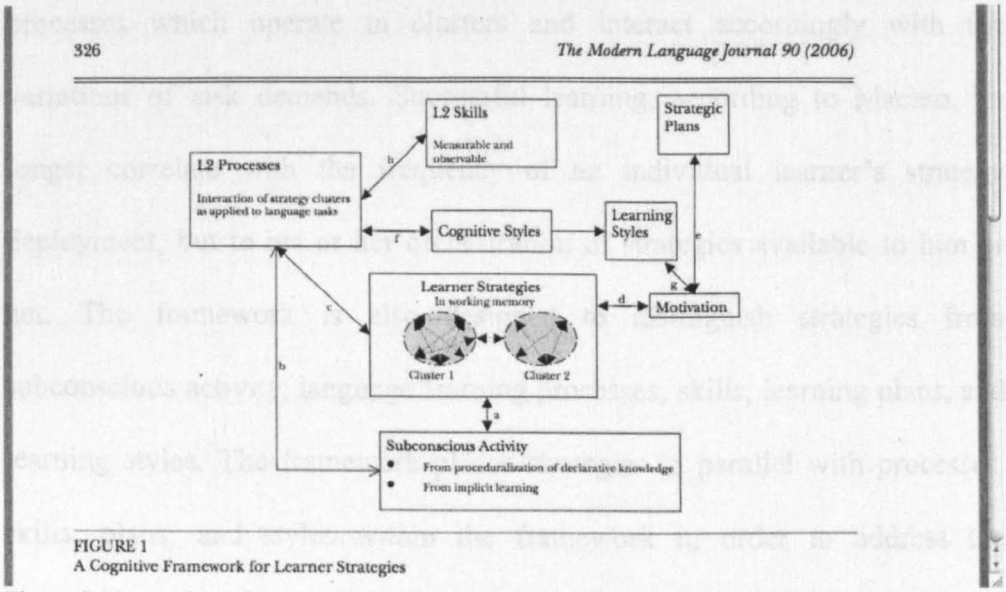


Figure 2: A cognitive framework for learner strategies (Macaro 2006:326)

Quintessentially, this framework, according to Macaro (2006), dismisses the notion of "the dual location of a strategy"(2006:332) and proposes that (a) a strategy occurs "in the brain, in working memory"(2006:327). In doing so, the framework clearly adheres to cognitive psychology's quest to demonstrate that human knowledge is organised and that learning needs to be interpreted in the light of this organisation (McLaughlin, 1990). Macaro (ibid) further describes strategies in terms of "a goal, a situation, and a mental action". This is believed to be able to effectively solve the problems of strategy size and strategy abstractness that are often the source of fierce criticisms levelled at LLS research. In addition, he states that strategies are "the raw material of conscious cognitive processing, and their effectiveness or non effectiveness derives from the way they are used and combined in tasks and processes"(Macaro 2006:325). This integration of strategies into the

components of cognitive processing rather than an impetus to accelerate processing has enabled the possibilities of delineating strategies as L2 processes which operate in clusters and interact accordingly with the variations of task demands. Successful learning, according to Macaro, no longer correlate with the frequency of an individual learner's strategy deployment, but to his or her orchestration of strategies available to him or her. The framework is also designed to distinguish strategies from subconscious activity, language learning processes, skills, learning plans, and learning styles. The framework places strategies in parallel with processes, skills, plans, and styles within the framework in order to address the "semantic equivalence problem"(Macaro 2006:332). The framework also ensure that strategies remain both situation specific and transferable so that the reduction in the size of strategies and the learning situations and task which are applied to. In order not to "offer a superficial glimpse of L2 learning from the learner's perspective", Macaro proposes a number of further areas of study to test the model empirically. This include:

> (a) that conscious cognitive activity can be described in terms of action, goal, and learning situation;
> (b) that strategy clusters can be systematically mapped against L2 tasks;
> (c) that automatised strategies can be brought back to selective attention and evaluated by learners;
> (d) that a reduction of categories, to cognitive strategies and meta-cognitive strategies only, is theoretically justifiable and sufficient; and
> (e) that language learning and skills development result from the repeated successful activation of L2 processes, which are the relatively successful applications of strategy clusters to L2 tasks.
>
> (Macaro 2006: 332).

Summary of 2.8

Considerable research has been carried out in all four language skills (See Macaro and Cohen 2007 for a review). The skills which are of most interest to this study are reading comprehension and listening comprehension. In fact, I would argue that listening comprehension is the most relevant area as the codeswitching takes place in the context of interactive listening, that is listening to the teacher's explanations and engagement with a written text. Listening strategies fall into two broad categories: top-down strategies (using prior knowledge of the context and the topic) and bottom-up strategies (decoding and parsing the actual text that the learner hears).

All studies involving these listening strategies (Goh 1997; Vandergrift 2003; Thompson and Rubin 1996) have involved a speech stream entirely composed of the L2. This is not surprising as students were listening to authentic or semi-authentic texts via a tape recorder or video. There have been, to my knowledge, no studies which described the strategies used by students when listening to text in which there was the presence of both languages – i.e, 'codeswitched text'. This study then seeks to investigate the strategic behaviour of Chinese learners of English as they hear codeswitched text produced by the teacher. In other words, what is their cognitive and metacognitive mental behaviour in reaction to spoken codeswitches embedded in a matrix L2 text?

Chapter Summary

The review of the literature in this chapter has placed the current study into the context of the research community. The predominant view emerging from the literature is that, under certain circumstances, codeswitching in the L2 classroom can be facilitative; however, the issue of its use is contentious. Theories about classroom teacher codeswitching exist; however, as they have, as yet, not been tested empirically, their value remains to be determined.

The studies of classroom teacher codeswitching have yielded detailed descriptions of the pattern of L1/L2 distribution. Perhaps because most of these studies have been conducted using various methods and analysis frameworks, the resulting picture for models of behaviour seem perplexing and far from informative.

In light of this, more progress needs to be made towards understanding the way in which classroom teacher codeswitching works. Given the current landscape of teacher codeswitching research, therefore, a need exists for empirical study from the learners' perspective. That is to say, there is a need to investigate the students' voices—their articulated reasons for engaging in classroom interaction in which teacher codeswitching occurs as well as their notions about the purpose and value of teacher codesiwitching and how these notions might influence their strategic reactions toward their teachers' codeswitching, if at all.

Exploring the perceptions of both teachers and students with respect to these issues could also help to shed light on the perceived place and value of classroom codeswitching at an educational institution. To that end, one of the goals of the present research is to investigate learners' strategic processes when reacting to teacher codeswitching as they occur in the classroom, with an interest in deepening understanding of the consequences and role of teacher codeswitching phenomena. Also central to this study is an examination of the extent to which Macaro's functional model of teacher codeswitching, developed out of the British secondary school context, can be applied in a different programme context in which the behaviours and thought processes of university level teachers and students in Mainland China are the subject of investigation.

In sum, this literature review has presented the previous research and thinking that informed the design and implementation of the present study. Chapter Three: Methodology, will present the study's research questions as well as the methods employed in designing the study, and in collecting and analysing the data.

Chapter Three: Methodology

Introduction

This chapter describes the research rationale and general decisions made in various stages of the studies which comprise the design, the implementation and the analysis. It begins with a brief examination of the second language classroom research (SLCR) context for the current study, followed by a detailed description of the decisions made in the sampling, access and procedures and analysis of data which span across Phase 1 and Phase 2 study. This chapter concludes with an extended discussion of the potential ethical issues involved in the study.

3.1 Introduction to second language classroom research and its methods

In this section, the scope of the SLCR will be introduced first and then the four research traditions related to it will be discussed followed by detailed discussion of case study research, discourse analysis and systematic classroom observation.

3.1.1 The foci of second language classroom research

As part of SLA research, SLCR sets out to provide a range of variables that can facilitate the acquisition of TL in the classroom setting. SLCR focuses on the investigation of issues pertaining to both teaching and learning language inside classrooms. This differs from those SLA studies conducted in laboratory settings which examine the effect of certain interventions on

learners and their L2 learning. The aims, goals or issues on SLCR focus on teachers or learners, or sometimes on the interaction between both. Teacher-focused research probes factors such as the classroom decision-making processes of teachers, methodology employed, and the nature of teacher talk. For example, research focus on teacher talk encompasses different kinds of questions that teachers ask, the amount and type of talking that teachers do, the type of error correction and feedback that teachers provide, and the speech modifications teachers make when talking to second language learners. In the present study, the focus is on teachers' L1 and L2 use in the classroom.

Research that focuses on the learner, which is an increasingly important factor contributing to the shift in research paradigm in SLCR, looks at, for example, the developmental stages and aspects of learner interlanguage, the learning strategies and styles used by different learners, the type of language prompted by various types of materials and pedagogic tasks and activities, the classroom interaction that takes place both between teachers and among learners, and the effect of such interaction on learners' linguistic development.

3.1.2 Research methods in second language classroom research

Chaudron (1988) identifies four traditions in SLCR: (1) psychometric studies, (2) interaction analysis, (3) discourse analysis, and (4) ethnographic analysis. Psychometric studies are concerned with quantitative results and, if possible,

generalisable conclusions designed typically to gauge the learning in terms of learners' performance and rate of learning and knowledge, involving the use of experimental methods, for example, pre- and post-tests for both control and experimental groups. Interaction and discourse analysis involve the use of analytical observation frameworks which focus not only on the social meanings inherent in classroom interaction (interaction analysis), but also on the linguistic aspects of interaction (discourse analysis). The fourth tradition identified is ethnography in the classroom. According to Chaudron (ibid), this tradition aims to interpret events occurring in the classroom.

The two main traditions commonly associated with L2 research are the psychometric and ethnographic traditions. These two traditions seem to mirror the commonly observed distinction within the mainstream educational literature between qualitative and quantitative methods. However, for some, this distinction might be regarded as oversimplistic. With regard this, Nunan (1989) comments:

> Each of these research methodologies has a different focus and function, and it is not possible to say that one is necessarily better than another without knowing what it is that the researcher is trying to find out.
>
> (Nunan1989: 4).

Nunan's view is echoed by Seliger and Shohamy (1989). They argue that second language classrooms are such complex entities that they cannot be investigated from a single perspective. They identify four parameters of

second language research, providing the meta-theoretical basis for the research methods. The four parameters of second language research are:

> Parameter 1: synthetic & analytic
> Parameter 2: heuristic & deductive
> Parameter 3: control and manipulation of the research context
> Parameter 4: data and data collection
>
> (Seliger and Shohamy 1989:41).

The parameter generally adopted in the present study is the second, which is related to heuristic research where the hypothesis is derived inductively. The aim of inductivism is to derive general principles or 'truths' from an investigation of single instances (Nunan 1992:134). In heuristic research there is a discovery or description of the patterns or relationships yet to be identified in some aspects of second language. As the study aims to investigate and describe EFL teachers' codeswitching behaviours and students' reactions to them in a comparative manner, an area which, to date, has been little researched, this study can be classified as heuristic research. When the aim of the research is heuristic, recording and observation of FL learning takes the form of direct observation of classroom events, followed by detailed transcripts. Heuristic research is data driven with no preconceptions and capable of generating as its product a description of hypotheses (Seliger and Shohamy 1989:37).

A further description of classroom process research and the principles that govern it is provided by Gaies (1983). He identifies three basic principles: firstly, the classification of second language instructional experience should

be complex and not one-dimensional. As this study sets out to address a number of research questions concerning both teacher and students, a one-dimensional approach was rejected. Secondly, classroom process research should aim at providing a full description of the complexity of the second language instructional environment, with the emphasis on 'thick description' (Geertz1973). The present study, in the form of multiple case study design, employing a mixed method consisting of both quantitative and qualitative elements which can produce multiple sources of data, adheres to this principle of describing as fully as possible the second language instructional environment. Finally, one aspect throughout classroom process research should be the priority of direct observation of classroom activity. This third principle was also followed in the present study, with the researcher being present in the classroom observing and recording activities going on.

Before proceeding to examine the details of the specific design and methodology used in this study, it is important to explore further the research traditions by examining case studies research.

3.1.3 Case studies research

Case study is an intensive investigation of a specific individual or specific context. A classic and often cited definition was made by Yin (1994:13), where he defines a case study as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident". Case

study is essentially qualitative, descriptive and heuristic. Moreover, it contains quantitative elements, e.g. quantitative evidence (Yin 2002).

According to Yin (1984), case studies are the preferred strategy when:

> 'How' or 'why' questions are asked;
> The researcher has little control over the events;
> There is a contemporary focus within a real-life context.
>
> (Yin 1984:13).

A case study research approach was considered to be the most appropriate way to frame this research, since the aim was to gain a holistic, unique and universal understanding of the complexity of the phenomenon, and was concerned with the interaction of a number of factors (Nisbett and Watt 1984, Yin 1994). As Mackey and Gass (2005) point out, case studies clearly have the potential for rich contextualisation that can shed light on the complexities of the second language leaning process. In addition, the adoption of a case study approach was motivated by the fact that it would have been impossible to attempt a generalisable study with such an enormous population of teachers and learners in university EFL classrooms in Mainland China.

Stake (1995) describes three types of different case study: intrinsic, instrumental and collective case studies. The first two are single case studies focusing within the case, while the last is a multiple case study approach, which focuses both within and across cases. Examined in the present study were multiple case studies (Miles and Huberham, 1994; Merriam, 1998). The aim of this multiple case study was to understand teachers' codeswitching

patterns and students' reactions to them by accessing the meanings "embedded in participants' experiences and mediated through the investigator's own perceptions" (Merriam 1988:19). This was realised via the multiple sources of evidence collected in two phases of the study. Multiple case studies involve more than one case. In the present study, two cases comprise of two teachers and their student group from two universities in Mainland China. The reason for choosing a multiple case study approach was to study not only one particular case (class) in depth, but also to compare and contrast the two cases in order to draw out differences and commonalities. One of the many advantages of employing more than one single case would be to 'enable the researchers to identify what is common and what is particular about the case' (Stake 1994:238).

In addition, the external validity or generalisability of the findings could be enhanced by the adoption of a multiple case studies method (Merriam1998), even though the issue of generalisability in case studies are still debatable. For example, Miles and Humberman (1994:29) makes the following suggestion as to the generalisability of case studies: "If a finding holds in one setting and, given its profile, also holds in a comparable setting, but does not in a contrasting case, the finding is more robust".

Given the advantages of employing the case study method, however, case studies research is sometimes criticised as being beset with problems. The thrust of the argument made by critics of the case study method seem primarily to lie in issues such as the case study's validity, reliability and

generalisability. The central question is, to what extent can the researcher trust the findings of a qualitative case study? In light of this, it is perhaps important to spend some time to consider each of those issues which could possibly discredit case studies research as a scientific research strategy, and also those possible guidelines which could enhance the rigour of this approach proposed by a number of researchers, for example Yin (1984).

Validity is concerned with the extent to which the study has dealt with the constructs that it was meant to study. Researchers differ in the issue of validity. On the one hand, some researchers (e.g. Stake 1995) hold the view that internal validity is important, while external validity is irrelevant in a case study. On the other hand, some researchers (e.g. Yin 1984) tend to believe that the issue of validity is just as important in a case study as in any other type of research. For those critics of case studies method, they argue that the validity for a case study is difficult to test, with construct validity being especially problematic in such research. This has been a source of criticism because of potential investigator subjectivity in data collection. Another problem with internal validity is the inferences researchers have to make about those unobservable behaviours. In other words, there is a question of whether researchers are really observing what they think they are observing. However, internal validity, as Yin (1984:38) argues, may not be problematic to studies other than those seeking to establish causal and explanatory relationships. For Lincoln and Guba (1985), internal validity takes precedence over external validity. If the data collected were meaningless, then it would be meaningless to make generalisations.

Inextricably linked with the validity of the case study is its reliability. Reliability refers to the extent to which the results of one's study can be repeated. In other words, if the study is repeated, will it yield the same results? If the reliability of one's study cannot be guaranteed, its validity might be meaningless as well. With regard to the issue of reliability, there are basically two different viewpoints. Some researchers (e.g. Lincoln and Guba 1985) argue that the notion of reliability can be applied to qualitative case studies in a sense similar to its meaning in traditional research. This is echoed by Yin (1984), who argues that reliability and validity are just as important for case study research as for any other type of research. Similarly, Robson (2002:176) admits "… researchers using flexible designs do need to concern themselves seriously with the reliability of their methods and research practices." However, Merriam (1988) makes somewhat critical and contrasting comments:

> What is being studied in education is assumed to be in flux, multifaceted, and highly contextual, because information gathered is a function of who gives it and how skilled the researcher is at getting it, and because the emergent design of a qualitative case study precludes a priori controls, achieving reliability in the traditional sense is not only fanciful but impossible.
>
> (Merriam1988: 171).

Despite the caution made in the issue of reliabilities with case studies, there are a number of techniques offered which could be employed to enhance the reliability of a case study. First, reliability can be enhanced by using case study protocols throughout the study (Yin 1994), i.e., the 'audit trial' used by Robson (2002:176), describing an overview of the case study project, field

procedure, case study questions, and a guide for case study reports (Yin, 1994:64,65). A second tactic is to develop a case study database during data collection (Yin, 1994:33). The aim here is to keep track of all the notes, recordings, materials, or documents related to fieldwork in a systematic way, so that their retrieval and use are quick and efficient. Third, the explicit description of the study's methods and procedures should be provided to enable the reader to follow the process as a whole, and to make the links between data and conclusion drawing. This description needs to be comprehensive, accessible, well-documented and should discuss any assumptions, or possible bias (Marshall & Ross, 1995:146-148).

External validity, or generalisability, relates to how generalisable the results of a research study are, i.e., whether the results are generalisable beyond the immediate case. Those sceptical of the generalisability of case studies argue that such studies are difficult to generalise because of their inherent subjectivity and because they are based on qualitative subjective data, sometimes a single case. This difficulty may in part be related to the logic of considering generalisability in the same way as investigators do using experimental or correlational design. It is true that case studies may be difficult to generalise at the statistical level; however, it is possible to make analytical generalisations. In dealing with the issue of external validity (generalisability), Yin (1984) argues that there is a false analogy between the generalisability of a case study and that of survey research, and he proposes the need to seek analytical generalisation rather than statistical generalisation (1984:39). Yin (1984) also points out that the generalisation of results, from

either single or multiple designs, is made to theory and not to populations. Multiple cases could strengthen the results by replicating the pattern-matching, thus increasing confidence in the robustness of the theory.

However, Nunan (1992) regards Yin's proposal as weak on the grounds that a single piece of disconfirming evidence offered by the case study is insufficient to falsify a given hypothesis or claim. He argues:

> It seems to me that Yin is arguing that case studies are appropriate as a tool for falsifying a particular hypothesis or claim on the grounds that a single disconfirming instance is sufficient to refute a given hypothesis or claim providing, of course, that it is formulated in a way which enables it to be falsified-this is by no means true of all hypotheses.
>
> (Nunan1992: 81).

Despite such dispute, some advocates of case study research (e.g. Guba and Lincoln 1985) simply reject the fact that generalisablity is an issue for case study research. They state that as a case study is not designed to achieve generalisability, the accusation that a case study is unable to generalise its findings seems not valid. In other words, the criteria for measuring its generalisability might not apply to the case study. Moreover, some argue that the criticism levelled at case studies applies to other research methods as well (Bromley 1986). The issue is whether or not it is possible to devise appropriate checks to demonstrate what in experimental design terms are referred to as the reliability and validity of the findings (Bromley 1986:168). Most argue that qualitative research, because it is based on different assumptions about reality, i.e., a different worldview, a different paradigm

should have different conceptualisations about validity and reliability (Lincoln and Guba 1985).

Yin (1984) suggests that though quantitative data collection sits snugly with case study research, the use of statistical generalisation as the method for generalising the results of a case would be faulty. In order to add rigour to case study research, Yin provides a number of guidelines, which Macaro (1998a) summaries and adapts:

> Data collection:
> 1.Documents should be carefully used and should not be accepted (unsupported by other evidence) as literal recording of events
> 2.Direct observation corroborates other evidence
> 3. Participant observation allows the researcher to see the reality from the view point of someone inside
>
> Data analysis:
> 1. Extensive use of pattern matching: comparing an empirically based pattern with a predicted one
> 2. Ensure the possibility of rival explanations
> 3. Explanation building: initial theoretical statement; initial case; revision of initial statement; other evidence of the case; revision; other cases (if possible); revision
> 4. Time-series analysis: hypothesizing that some events must come after others
> 5. Provide cross-sectional analysis when using multiple case studies as well as individual analysis
>
> Assuring reliability:
> 1. Constantly monitor the study for construct validity and reliability, not just at the beginning
> 2. Informants should be invited to review the whole or part of the case study
>
> (Macaro 1998a, adapted from Yin 1984:105).

Although statistical generalisation was not intended, the aim of the present research was to provide insights of wider applicability from the study of the

two cases. Generalisation, in this study, took the form of 'theoretical inference' (Hammersley1998), in which the conclusions moved beyond the claims made about the individual cases to a more general, theoretical level, potentially of wider interest. Descriptions of the individual cases in this study were therefore, used to theorise about the possibilities and problems of teaching a second or foreign language with reference to codeswitching in the classroom. Any theoretical understanding thus produced should be considered provisional in nature, requiring further investigation. However, the current lack of research in this area rendered this project valuable as an exploratory study.

Another issue for a case study approach is the problem of 'going in' and 'going native'. While Walker and Adelman (1976) argue that an outsider cannot understand insider interaction, and McIntyre and Mcleod (1986) counter this view by asserting that the amount one cannot understand is minimal, Macaro (1998a) adopts the middle position. He argues for a redefinition of the term *outsider*, stating:

> …is an outsider to a FL classroom a person who has hardly ever been in one? Is the notion of insider one of culture or of previous experience? Would an American FL teacher who had never been in a British classroom be more of an insider than a British researcher who had never taught foreign languages but had spent many hours observing foreign language lessons in Britain?
>
> (Macaro 1998a:16).

This argument raises the question of the researcher's awareness in this study of the role he adopted and its possible effect on the data collected. It is my

view that both 'culture' and 'previous experience' can be criteria to define the *insider*. The researcher in the present study shared the 'culture' of teaching English as a FL in Mainland China, qualifying him for the role of an *insider*, even though he had not taught in the university setting. The absence of university teaching experience might provide him with the unique advantage of being able to avoid the danger of 'going in too far' and becoming too subjective, as warned by Macaro (1998a).

3.1.4 Discourse analysis

The use of discourse analysis (DA) in the classroom observation data collected for the present study, on the one hand, provided an alternative dimension of the teacher codeswitching pattern compared to the L1 and L2 distribution pattern offered by timed analysis, and on the other hand provided a discoursal context in which students' reaction data were situated.

DA, as a classroom research tradition, has grown from a variety of disciplines and has provided a foundation for research into applied linguistics and language pedagogy. The main principle of DA is that it views language as social interaction, using principles and methodology typical of linguistics. DA in second language teaching and learning provides examples of how teachers can improve their teaching practices by investigating actual language use both inside and outside the classroom, and how students can learn language via exposure to different types of discourse.

The value of DA as a legitimate research method in L2 classroom was recognised in the 1970s and one well cited piece of work was undertaken by Sinclair and Couthard (1975), who, following Halliday's systematic grammar (1961), developed a systematic model of classroom discourse which was later adapted to the second language classroom. Sinclair and Coulthard (1975) developed a hierarchical model by identifying 'ranks' in the structure of a lesson, consisting of 'lesson', 'transaction', 'exchange', 'move' and 'act'. The element of structure most clearly defined is the 'exchange', which typically has three phases: an 'initiating' move, a 'responding' move and a 'follow-up' move. This became known as the IRF exchange when related to teacher-student discourse. They also identified twenty-two different classes of 'act', which when combined, make five classes of 'move'. These consist of framing and focusing moves, which together make boundary exchanges and opening, responding and follow-up moves, thus making the teaching exchange. A number of these exchanges contribute to the making of transactions, which combine to make the lesson.

The employment of DA can be rewarding as it can bring to the surface those deep-seated aspects of classroom practice which might not be accessible through other research methods. For example, DA can be preferable to the interview method, as the latter is likely to suffer the problem of 'validity' by virtue of the possibility of the interviewee leading the interview and not telling the truth (Walker 1986). Apart from methodological superiority, DA has the potential to facilitate the comparison between traditional language learning activities and more authentic contexts beyond the classroom. The

goal of locating interactional modifications in L2 classroom-based research has necessitated a form of DA based on quantification of predetermined categories. McCarthy (1991) argues that DA is useful in analysing patterns of interaction where talk is relatively tightly structured.

The interaction aspect of DA is highlighted by Stubbs (1983:1), where he defines DA as 'naturally occurring connected speech or written discourse' which attempts to study 'larger linguistic units', such as conversational exchanges or written text, and is primarily concerned with 'language use in social contexts', in particular with 'interaction or dialogue between speakers'. This definition covers three key aspects of DA. First, it is concerned with language use beyond the boundaries of a sentence or utterance. Second, it is concerned with the interrelationship between language and society; and finally, it is concerned with the dialogue or interactive properties of everyday communication. The latter two points also reveal more of the tradition of conversation analysis (CA), which some researchers tend to subsume under the broad heading of DA. What are the differences between DA and CA?

Nunan (1992:160) draws four distinctions between DA and CA, which are summarised by Macaro in the following way:

> 1)The means by which the data is collected [discourse analysis is not always taken from naturalistic settings];
> 2)DA admits the use of written text (CA does not);
> 3)DA admits the use of pre –determined categories (CA generally does not);
> 4)DA uses linguistics as its theoretical base, whereas CA uses ethno methodology and sociology (see Edmondson 1981 for a critique of CA).

(Macaro 1998a: 20).

The present study employed DA as its analytical framework for the investigation of interaction. However, DA is not without its problems. The criticisms levelled at discourse analysis include being largely acontextual, ignoring non-linguistic data (Levinson 1983, Francis and Hunston 1992 Seedhouse 2004) and not being sufficiently concerned with 'real-life data' (Edmondson1985).

This lack of contextual information appears to be the defining characteristics of the British tradition of DA in opposition to American DA. This British tradition, according to Macaro (1998a), was criticised by researchers such as Furlong and Edwards (1986) and Stubbs (1986) for analysing the structure of talk with little reference to the pedagogical and social structures, which tend to vary from teacher to teacher.

In response to these criticisms towards DA, Shriffin (1994:18) argues that in order to achieve textual coherence, one has to include extensive information from outside the text. Moreover, she suggests an ethnographic approach to discourse as 'the most inclusive and integrative of approaches' (Shriffin 1994:185). In addition, the extent to which there is reliance on the context is questioned by Coulthard (1981), as he argues that there are aspects of discourse that one can predict without constant reference to context. He claims:

> A speaker can do anything he likes at any time, but what he does will be classified as a contribution to the discourse in the light of whatever structural predictions the previous contribution may have set up.
>
> (Coulthard et al, 1981: 84).

Despite the 'context' criticism, researchers like Hamersley (1986) and Macaro (1998a) tend to abandon the distinction between discourse and pedagogy, viewing classrooms as consisting of 'interrelated actions which are not just of rule following but of decision making' (Hammersely1986:10). They also argue that in classroom discourse, 'the meanings and values and pedagogical intentions of classroom discourse reside behind and beneath what is said' (Macaro1998a: 22). Therefore, a researcher's interpretation of classroom discourse is best based on the participants' perspective.

DA also studies the functions of utterances, and for this reason, the context remains important. According to Nunan (1993: 20), the aim of the DA is to study the purpose and functions of text-forming devices in the context in which it occurs 'with the ultimate aim of showing how the linguistic elements enable language users to communicate in context'. Thus, the integrated approach of CA and DA, as suggested by Seedhouse (2004), to capture the dynamics and fluidity of interactions may already be present in the DA approach.

3.1.5 Systematic classroom observation

Classroom research has undergone a shift of focus from that of the prescriptive tradition i.e., methodological comparisons to one that is descriptive in nature. This is depicted aptly by Allwright (1988):

> ...the time was ripe, then for an alternative approach to classroom language learning research, an approach that would no longer see the language teaching world in terms of major rival 'methods' and one that would be more respectful of the complexities of the language teacher's tasks.
>
> Allwright (1988:10).

Given the fact that observation has a part to play in classroom research, different approaches to the use of observation have been used to serve different research purposes. In a systematic observation, more detailed and more carefully prepared schedules are required. In this approach, the researchers determine what to look for in advance. The term 'systematic' can now be used to refer to 'any observation which is subjected to a detailed analysis for the purpose of classifying in some explicit way the events and or utterances recorded' (Allwright 1988:255).

Different types of systematic observation techniques are generated due to the use of sampling. Numerous systems and schemes have been based on two kinds of sampling, i.e., sampling by category or sampling by sign (The examination of the strength and weakness of these two methods have been detailed in 2.4 of Chapter Two.) At present, there are at least twenty systems for coding teacher and student behaviour in second language classrooms, including the classification of verbal interaction as discrete linguistic/pedagogic events or as interrelated units of discourse (Long 1983:

5). However, coding systems have been subject to considerable criticism by sociolinguists. The main criticisms of these systems are summarised below.

First and foremost, the criticism directed at classroom observation systems relates particularly to the issue of context highlighted by Mehan (1979: 10): 'The relationship of behaviour to context is lost'. For example, there is the problem of on-the-spot coding without the aid of recording facilities, which was made explicit by Stubbs (1983): as " Since the classroom talk is generally not recorded but `coded' by the observer on-the-spot in real time, the actual language used by teachers and pupils is irretrievably lost." (Stubbs 1983:92).

As classroom language discourse is fluid, complex and dynamic, the coding systems are less likely to capture all of it, therefore, it is likely to cause, as pointed out by Van Lier (1988: 45): '...failure to address the complexity of classroom interaction.' Similarly, the functions of language may not be captured (Mehan, 1979:14) and may '… fail to reflect accurately the multiple, simultaneous functions that language serves in the classroom'. This view is shared by Delamont & Hamilton (1976: 8), who made a similar point: "Interaction analysis systems are usually concerned only with overt, observable behaviour. They do not take directly into account the differing intentions that may lie behind such behaviour".(Delamont & Hamilton 1976: 8).

Finally, Long (1983) highlighted the danger of the potential loss of the participants' perspective of interpretation of the data collected by those observation instruments. He argued:

> ...the systems themselves are no less subjective than the impressionistic comments they were designed to replace. Observational instruments are, in fact, no more (or less) than theoretical claims about second language learning and teaching. Their authors hypothesize that the behaviors recorded by their categories are variables affecting the success of classroom language learning. Very little has been done to test those hypotheses.
>
> (Long1983: 10).

In spite of these criticisms, there is no suggestion that coding or quantification schemes are of no value. On the contrary, there are a great number of coding schemes that are effective for the purposes for which they have been developed, e.g. facilitating observation, teacher training, isolating specific behaviour, capturing differences in the communicative orientation of L2 interaction. According to Chaudron (1988), the category system has the greater potential to identify every behavioural event that occurs, while a sign system would tend to avoid any extra weighting due to events which occur very frequently.

In view of the fact that an important aspect of this study was an enquiry into teacher codeswitching, which was then subjected to statistical analysis, a structured and systematic approach to observation was considered preferable to other approaches, as exemplified in Macaro (2001b)'s study. This decision was based on a consideration of the approach that would best elicit the information needed to address the research question.

3.2. Design of the study

In this section, an account of the research questions, research population, sampling, research strategies, data collection, and data analysis and ethical issues are presented.

3.2.1 Research questions

The context of this study is in university EFL classroom in Mainland China. The aim of this study is two fold. One is to uncover the pattern of teachers' codeswitching behaviour and another one is to explore how students react to their teachers' codeswitching. These aims were reflected in the development of research questions which were based on Chapter One and Two in that the rationale for the research and the review of relevant research were furnished.

The research questions which guide this study consist of the following|:

Research question one: What patterns of codeswitching are found in a purposive sample of teachers of EFL in two universities in Mainland China?

There are four sub questions under research question one:

Sub question 1: what is their amount of L1 and L2 use?

Sub question 2: What is the effect of teachers' codeswitching time on student talk?

Sub question 3: what is the codeswitching distribution by L2 boundary?

Sub question 4: what is the functional distribution of their L1 and L2 use?

Sub question 5: what do teachers perceive their codeswitching behaviours?

Research question 2: What reactions do learners have towards teachers'codeswitching during oral interaction in L2 classrooms?

There are two sub research questions under research question 2:

Sub question 1: what are the online strategic reactions that learners have towards their teacher's burst of codeswitching in oral interaction with them?

Sub question 2: what are the attitudinal reactions that learners have towards their teachers' codeswitching?

In the following sections, the ways these research questions were addressed such as research strategies, sampling, data collection and analysis etc will be described and presented. The research population from which the participants of this study come from will be looked at first in the next section.

3.2.2 Research population

It is clear from the research questions in 3.2.1 that the research population is comprised of university teachers and learners in Mainland China. Universities in Mainland China on one hand tend to resemble each other probably because the overwhelming majority of them are funded by the government and run undergraduate and postgraduate courses. On the other hand, they may differ from each other in terms of:

- University type (comprehensive, technical oriented, etc.);

- Differences in teaching and research focus;
- Reputation for quality of teaching and research;
- Length of history.

Faculty members are an important part in the university and they may have an effect on the quality of education offered. Within the teacher population, university EFL teachers tend to share the following attributes:

- University EFL teachers in Mainland China tend to share a common cultural background; Normally they are of the same ethnic group and work under the same professional context;
- The overwhelming majority of university EFL teachers in Mainland China are non-native speakers (with the exception of a very small proportion of short-term temporarily employed native-speaker teachers);
- University EFL teachers in Mainland China in virtually all cases have met certain qualification criteria, such as degrees, teaching qualification and teaching experience.

Characteristics which may distinguish them from each other include:

- Demographic differences (e.g. age and gender);
- Academic ranks (e.g. teaching assistants versus professors);
- Teaching experience and their learning experience;
- Teaching methodological preferences;

- TL fluency
- Whether they have been to an Anglophone country or not.

In addition, these teachers tend to have at least four years of studying English as their major and increasingly they are required to have a master degree and overseas study background in an Anglophone country with varying length of teaching pedagogy training. However, they may differ in terms of their TL fluency, especially their oral skills, which are increasingly seen as important in their teaching profession. This is a decisive factor in selecting the participating teachers in this study. (See 3.2.3 for sampling). With regard to the student population, the characteristics common to them may include:

- Similar cultural and ethnic background;
- Degree level study in various subjects;
- Full-time student status.

On the other hand, they differ in the following aspects:

- Demographic differences (e.g. age and gender);
- TL proficiency;
- Levels of course (e.g. undergraduate level versus postgraduate);
- Aptitude;
- Learner strategies and style;
- Socio-economic status;
- Place of origin (rural or urban).

The above commonalities and differences for university EFL teachers and their students are by no means exhaustive, but are simply intended here to provide readers with a general impression of the backdrop against which the samples in this study operate. They may also provide reference points later as the case study data begins to emerge.

3.2.3 Sampling

The sampling strategies in this study were primarily determined by research-driven criteria and access (Miles and Huberman1994). Guided by the research questions and the nature of the case study enquiry, the sampling strategy adopted in the study was purposive. This type of sampling approach is 'sampling in a deliberate way, with some purpose or focus in mind' (Punch 2005:187), which is based on the presumption that in order for one to 'discover, understand, [and] gain insight … one needs to select a sample from which one can learn the most' (Merriam1988:48). The sampling method should align with the purposes and the research questions of the study (Punch 2005).

Miles and Huberman (1994) suggest six general questions against which to check a qualitative sampling plan:

1. Is the sampling relevant to your conceptual frame and research questions?
2. Will the phenomena you are interested in appear? In principle, can they appear?

> 3. Does your plan enhance generalisability of your findings, through either conceptual power or representatives?
> 4. Can believable descriptions and explanations be produced - ones that are true to real life?
> 5. Is the sampling plan feasible, in terms of time, money, access to people and your own work style?
> 6. Is the sampling plan ethical, in terms of such issues as informed consent, potential benefits and risks and the relationship with informants?
>
> (Miles and Huberman 1994:34).

Questions 1 and 2 were addressed by the sampling strategies adopted in the present study; that is to say, purposive sampling, through which a deliberate effort was made to choose those practices congruent with the research interest and also within the researcher's reach. Questions 3 and 4 were concerned with the extent to which the sampling could enhance the external and internal validity of the present study. Through the criteria used for measuring internal and external validity, the greatest possible effort to maximise the representativeness of the sampling in the study could actually enhance the credibility and trust people have in the study outcome. Question 5 raised some logistical issues with respect to the design and implementation of the sampling plan, which could be of concern to researchers to a varying extent. The sampling in the present study reflected the best possible attempt to balance all of the practical issues referred to above, with top priority being given to the collection of adequate, credible data for the study. Question 6 addressed the ethical aspects of sampling. Sampling decisions in the present study again reflected the necessary trade-off between the ethical concerns and the best possible sampling strategy. Where there was a conflict of interest in these two respects, priority was given to the protection of informants.

3.2.3.1 The selection of two universities

Beijing Red University and China Blue University were selected for this study on the basis of the following criteria:

- Two prestigious universities in Mainland China attracting students of roughly similar academic level;
- Located in the same city within relatively easy access because of the number of data collection visits;
- Universities which run English as a FL courses at both undergraduate and postgraduate levels as a required course.

However they differ from each other considerably in terms of the following aspects:

- The Beijing Red university has a history of nearly 50 years while the China Blue University has a history of ? years. Therefore, one is old and another one is relatively younger.
- The Beijing Red University has the reputation of teaching undergraduate studies, while the China Blue University is originally a graduate school with graduate education as its focus.

The above criteria mirrored a sampling strategy of purposiveness and convenience, not uncommon in case study design. Both universities selected were renowned for their teaching and research focus on science and engineering, ranking among the lower half of top 50 universities in Mainland

China's university league table. EFL courses in both universities were run for undergraduate and postgraduate study with different curriculum focus. In these two universities, the outcomes for students' English performance based tests such as CET band 4 and band 6 examinations had been relatively more successful than other universities in the same city.

The advantages of selecting two universities rather than one has been discussed in relation to the multiple case study design in 3.1.3 earlier. Such a choice, in addition, offers a number of advantages, for example, the possibility of comparison and contrast. In other words, the decision to select two universities stemmed from the belief that the results from each university could be compared for commonalities and differences, thus facilitating cross-case analysis. On the contrary, the use of one university may have the disadvantage of being atypical, possibly rendering the concept of 'transferability' (Lincoln and Guba 1985) of findings difficult due to the narrowness of the sample. In addition, the choice of two universities increases the confidence in the findings of this study, although it does not attribute any representational function to the research (Miles and Humerman1994).

3.2.3.2 The selection of two teachers

The overarching sampling criteria in selecting the teacher participants were:

- The EFL classrooms in which teachers were teaching needed to be broadly communicative (This will be examined at length with Phase 1 result of COLT[5]analysis in Chapter Four);
- The demonstration of teachers' predominant use of L2 and some L1 in their teacher talk; this will be examined by lesson visits, and the timed analysis of the videoed lessons;
- Teachers' TL fluency; this will be examined by lesson visits and recommendations by their peers and students;
- One teacher who taught undergraduate EFL course; one who taught postgraduate EFL course;
- Teachers' consent and willingness to participate in the study.

Prior to the Phase 1 study, a total of six teachers teaching first year undergraduate EFL course in Beijing Red university and a total of four teachers teaching the postgraduate EFL course in China Blue university were considered by the researcher after he successfully negotiated access to those two universities via a personal route which will expounded in 3.2.3 on access. It was this total of 10 teachers which formed the potential teacher candidate group from which the current two teachers were recruited. The profiles of three of them are presented in Table 3.1 below.

[5] Communicative orientation of language teaching (Spada, N. and M. Frölhich. 1995)

Table 3.1: Profile of three teacher participants at the Phase 1 study

Name (Pseudonyms)	John	Mark	Cindy
Gender	Male	Male	Female
Age	50	34	28
Education	BA, MA	BA, MA	BA, MA
TL fluency	Good	Average	Good
Overseas study and travel	Yes	No	No
Teaching experience	20 years	8 years	3 years
Courses taught	Undergraduate & postgraduate EFL; English as a major course	Undergraduate EFL course	Undergraduate EFL course
Mother tongue	Mandarin	Mandarin	Mandarin
University they teach	China Blue University	China Blue University	Beijing Red University
Mean of L1 used in lesson	8.0 % based on 286 minutes of video	65 % based on 50 minutes of video	16.1 % based on 248 minutes of video
Whether included in the Phase 2 study	Yes	No	Yes

In the light of Table 3.1, the criterion of TL fluency was of paramount importance in the selecting of the two teachers. Based on the researcher's classroom observations, both John and Cindy demonstrated higher levels of competence and fluency in the TL they were teaching than other potential candidates. However, despite their similarity in terms of linguistic competence, as evident from initial lesson observations, John and Cindy differed substantially in terms of teaching experience and background. They also differed in terms of teaching style and methodology. Nevertheless, they were both non-native speaker teachers and shared students' mother tongue. Further detail of how the two teachers were selected will be provided in 3.3.2.

3.2.3.3 The participating students

The participating students were drawn from two student groups. One group consisted of undergraduate first year students from Beijing Red university and another one consisted of postgraduate first year students from China Blue university. Both student groups were non-English major students. The decision to choose non-major students in this study was made clear in Chapter One. Furthermore, as the overwhelming majority of university students in Mainland China who study English as a FL, it was considered important for the research to address this vast population in EFL classrooms. The selection of student participants was based upon the following criteria:

1. Students from the EFL classrooms of the universities selected;
2. They were taught English by either John or Cindy;
3. Roughly equal numbers of male and female participants;
4. Adequate time availability for the SR sessions;
5. Willingness to participate in the study.

The number of students who participated in both Phase 1 and Phase 2 studies are provided in Table 3.2.

Table 3.2: Student participation number

Phases of study	Classroom observations		Stimulated recalls sessions	
	Undergraduate	Postgraduate	Undergraduate	Postgraduate
Phase 1	40	35	5	6
Phase 2	80	70	16	16

This was considered an adequate number for the purposes of generating the data needed for a case study of this nature and scale, and would ensure a

suitably in-depth and broad study. This choice also guaranteed a degree of diversity among students in the two case groups. In addition, gender was controlled for in the expectation that some interesting insight or pattern regarding target behaviours or experience might emerge related to it. However, it was not a direct research question. In addition, the selection was based on students' willingness to participate in the study, a decision based upon ethical concern. It is also important to stress here that the selection of students was not an imposed one. The 'choice according to consent' guaranteed not only the quality of data collected, but also the ethical manner in which the study was conducted. By ensuring this, ethical concerns such as the beliefs of other students that those selected must be high calibre students, or favoured by the teacher were likely to be addressed. Major ethical issues in this study will be discussed in 3.6. Further details such as how these students be selected from the class are provided in section 3.3.2.3 and 3.4.2.2 respectively.

To summarise, the sampling of universities, teachers and students reflect a desire for in-depth understanding of each case in the study. This number was considered acceptable given the size of the project and the time available. Above all, the sampling allowed a detailed and thorough description of the phenomenon under investigation. At the same time, 'maximum variation' (Patton 1990) was also considered in the selecting of teachers. The two teachers differed in the respects listed in Table 3.1 earlier, with the exception of their TL fluency, which was close. In addition, the ease of access, travel costs and desire to obtain a sample of teachers of different gender and from

different schools were taken into account in the final decision. Despite not being a random sample, it was designed to maximise the 'opportunity to learn' as much as possible the depth about teachers' codeswitching behaviours rather than the breadth of it (Stake, 1995:6).

3.2.4 Access

Access played an indispensable part in the above sampling decisions as it helped to achieve the sampling plan. There may be two possible routes to secure access in a study of this kind, one being the official route and the other the personal connection route (This route is known as 'Guanxi' in Chinese, which means the use of 'relationship' approach; see Taylor and Bogdan 1998). The former was unlikely in reality, as it would involve too much time and too many formalities in seeking support from government agencies and school authorities. The latter is highly acceptable in Chinese society; indeed, it is also quite a common practice in the research community around the world (Lofland and Lofland 1995, Delamount 1992). The latter approach, thus, was employed and worked effectively within the specified time-frame of the study.

Consequently, negotiating access to a larger number of teachers was not considered in the initial stages for a variety of reasons. First, guided by research design and objective, there was no need to use a large number of teachers. Two teachers were sufficient to undertake a qualitative case study. Second, to approach a large number of teachers in the beginning and to make

a selection of two would have created the impression of evaluation. The two teachers chosen were purposively selected on the basis that they satisfied a particular set of criteria (3.3.2). For this reason, the selection of teacher participants through personal connection appeared to be preferable to a procedure involving a large number of teachers at the same time, which would have raised the ethical issues outlined above. Access to students was facilitated by the two teachers, the detailed procedures for which can be found in 3.3.3 and 3.4.3.

3.3 Description of Phase 1

Phase 1 had 3 purposes. Firstly, it was undertaken to test the design in terms of data collection instruments, data collection procedures and the research skills that could ensure the effective conducting of the research. In this sense, Phase 1 was a pilot study of a pre-test (Yin 1994) and "a formal 'dress rehearsal'", in which the intended data collections plan was used as faithfully as possible (Robson 2002:185). Secondly, the aim of Phase 1 was to develop and strengthen the research skills in the implementation of the study (Marshall and Rossaman, 1995). Thirdly, the goal of Phase 1 was to ensure that the criteria for the selection of the two teachers to be studied had been met. Below are the descriptions of data collection instruments and the procedures used in Phase 1 study.

3.3.1 Data collection tools

3.3.1.1 Video-assisted classroom observation

Video-assisted classroom observation was used for collecting the Phase 1 data. The use of video was considered appropriate as it rendered the collection of a large amount of data and the post-hoc analysis manageable. The filming of the lesson rather than the taking of notes permitted the execution of other tasks, such as deciding on the selection of specific codeswitches for SR sessions. The video data collected also ensured that the later revisiting and re-examination of the data could be done with ease. In addition, it provided the opportunity for reflection on classroom events, i.e., the use of it in the SR enabled the participants to relive the past classroom experience and helped them to gain deeper insights into the events without depending too much on their memories. Thus, the use of video had two functions in this study. One was to facilitate the collection of observational data in a focused and systematic fashion. The other was to prompt participants to verbalise their thought processes in reaction to their teachers' codeswitching behaviours.

There were also challenges with regard to the use of video for observation. Firstly, the technological related issue of the proper functioning of the video could easily be taken for granted; thus, the malfunction of the machine could jeopardise the study. In order to prevent such a problem, proper procedures and steps were taken (This issue is thoroughly addressed in 3.4.2.2). Secondly, such detailed observation plans had to be arranged prior to each

observation as the sampling of what to video and how to video might make the tasks seem more efficient. Thirdly, the use of the video produced a sizable amount of data. This posed a serious challenge to the task of later data analysis.

In order to resolve these issues, preparation of what and how to observe using the video camera had commenced before the Phase 1 study and practice of this data collection procedure was thoroughly rehearsed throughout Phase 1 study. The step by step procedure of implementing video observation prior to and during Phase 1 study is provided in 3.3.1 and those issues arising from the Phase 1 are discussed and the corresponding measures to tackle these problems are described, following a detailed description of the procedure provided in section 3.3.2.

3.3.1.2 Communicative Orientation of Language Teaching observation scheme (COLT)

As an instrument used in the observation of teaching and learning in the second language classroom, Communicative Orientation of Language Teaching observation scheme (COLT, Spada, N. and M. Frölhich. 1995) may be used to describe particular aspects of instructional practices and procedures in L2 classrooms, to investigate relationships between teaching and learning. COLT was used for Phase 1 study only. The purpose of employing COLT for analysis in the Phase 1 study was to establish how communicative those observed lessons were because the underlying

assumption for the use of codeswitching was broadly communicative classrooms.

The COLT scheme is divided into two parts. Part A describes classroom events at the level of episode and activity and Part B analysis the features of verbal exchange between teachers and students and/ or students and students. The latter part has the focus on the timing of L1 and L2 in classroom interaction and it is similar to timed analysis. Thus, to avoid repetition, only part A was selected to analyse the communicative features of L2 classrooms observed.

The part A features of COLT include 'participant organisation', 'content', 'content control', 'student modality' and 'material'. A sample of COLT scheme can be found at appendix 3.1. 'Participant organisation' examines the structure of classroom interaction in terms of teacher or student led activities. 'Content' is about focusing on form and/or on meaning which may be an important division in communicative language teaching. 'Content control' is designed to determine to what extent students can take initiatives and control their learning, as this has been argued that may contribute positively to learning. Another argument in the literature is that the students' different skills practice should be integrated to reflect a more authentic use of language. So 'Student modality' was developed in COLT to determine if differential focus on the skill areas had any influence on the learners' use of the same skills. Finally, COLT consists of a textual part. It differs between minimal and extended text, where minimal texts include such things as

isolated sentences and word lists whereas extended texts include stories, dialogues and connected sentences. The assumption may be that different kinds of materials have different implications for learning.

Like any other instruments used in classroom analysis, COLT is not without its problems. As discussed in 3.1.3, first, it has been subject to considerable criticisms as it fails to address the complexity of classroom interaction(van Lier, 1988) . For example, such a coding system disregards the functions of language(Mehan 1979); it is also being criticised as being one-dimensional, insofar as recording classroom interaction merely from the observer's perspective (Long 1983) and the analysis is usually concerned with overt , observable behaviour, failing to take into account what lie behind such behaviour (Delamount & Hamilton, 1976). In addition, like other coding systems, the utilisation of one single set of criteria in COLT, i.e., the communicative orientation, to analyse the diversified classroom activities is often regarded problematic as it lacks a mechanism for analysing the different kinds of interactions in the classroom.

However, this is not to say that COLT is entirely without merit. On the contrary, COLT as reported is useful in facilitating observation, teacher training, isolating specific behaviour, capturing differences in the communicative orientation of L2 interaction. Notwithstanding this, for the reasons given above the result of COLT shall not be used without caution.

3.3.1.3 Stimulated recall in Phase 1

The key to address the research question (Research question 2: What reactions do learners have in reaction to teachers' codeswitching during oral interaction in L2 classrooms?) is the successful employment of the SR method. The use of this method was to probe students' reactions to teachers' codeswitching behaviours by asking them, with the aid of a replay of the relevant classroom events, to reflect on the moment of codeswitching, to recall what went through their mind and to describe the general perceptions they had of the teacher's codeswitch. The success of employing the SR method, according to Ericsson and Simon (1993), is underpinned by the model which predicts that information recently attended to by the central processor is kept in the short-term memory and is directly accessible for producing verbal reports. Ericsson and Simon (ibid) argue that retrospective data can be considered a reliable source of information, provided they are collected under certain conditions. They offer some general guidelines:

1) The data should be collected immediately after task performance, when memory is still fresh;

2) The subjects should be provided with contextual information to activate their memories;

3) All the information asked for must be directly retrievable, i.e., must have been noticed during the task performance, so that the subjects are not induced to generate responses based on inferences and generalisations;

4) For the same reason, the information asked for should relate to specific problems, or a specific situation;

5) No leading questions should be asked, to minimise the effects of 'researcher bias';

> 6) The subjects should not be informed that they will be asked for retrospective comments until after task performance, so as not to affect their performance of the task.
>
> (Ericsson and Simon 1993: 86).

To address issue No.1, in both Phase 1 and Phase 2 of the present study, all SR sessions were conducted immediately after the observed lesson in a nearby quiet study room in the same building. The delay time for the first SR session was approximately 10 to 15 minutes from the end of the lesson. This was more insignificant compared with studies in which the SR could possibly be delayed for as long as an hour, hours or even days in the literature. Therefore, the quality of the data collected was greatly enhanced by the shortest lapse of time from the finish of the observed lesson to the start of the SR session. For discussion related to immediate retrospection versus delayed retrospection, see Cohen (1987, cited in Faerch and Kasper 1987).

With regard to issue No.2, when conducting the recall sessions, the participants were provided with the teacher's codeswitching episode filmed in the video as the contextual clues for the target behaviours under the investigation.

To address issue No.3, measures taken to reduce the delay of SR as well as the specific questions asked in relation to teachers' overt codeswitching behaviours ensured direct access to the participants' memories and enabled them to verbalise their observation of what went through their mind during the time of codeswitching occurrence, rather than what they inferred from the

video they saw. The elicitation techniques also guaranteed that the participants were not forced to make answers.

Issue No.4 was straightforward to address, as the specific focus in this study was on the occurrence of teachers' codeswitching behaviours in the classroom when there was a large number of students attending to them.

With regard to issue No.5, special care was taken not to ask any questions that could lead to a forged answer. The elicitation techniques were limited to a number of pre-designed questions, and questions were asked in a standardised manner (see 3.3.2.3).

To address issue No.6, no participants were made aware that they would be chosen for the recall session. The selection of participants at the end of the observed lesson was perhaps preferable to making prior arrangements to ask for participants. The subjects did not receive any help or training in terms of how they should respond. In summary, it is believed that our procedures fully satisfied the above six principles.

Apart from the above guidelines, there were other practical issues in the actual SR sessions that need to be treated with caution. In order to ensure the success of implementing the SR, issues such as choice of codeswitching episodes, participants, research site, interaction and questioning techniques, handling the research equipments need to be seriously addressed. For example, the use of video camera as a filming device, as a presentation device

and the use of dictation machine to record the SRs. These issues will be discussed thoroughly in sections 3.3.2 and 3.4.2.

3.3.1.4 Semi-structured interviews

Semi-structured interviews were used with two teachers towards the end of the Phase 1 study. The purpose of employing this interview technique in this study was to answer one of the sub research questions about the beliefs these two teachers had toward their language choice behaviours in L2 classrooms by collecting teachers' accounts of their codeswitching behaviours. In addition, this data can be used together with the evidence from classroom observation and the TESLK data (Teacher Estimation of their Students' Lexical Knowledge, refer to 3.4.3 for more detail) together to draw a relatively fuller picture of teachers' codeswitching. The interview schedule was developed based on Macaro's (2001b) study on the analysis of teacher codeswitching behaviours in secondary schools in England and Interview schedule questions are attached in Appendix 3.2. The detailed procedure of conducting the interviews is documented in 3.3.2.4.

Due to their flexibility, semi-structured interviews have become increasingly popular among researchers. One advantage of such an interview is, in the first instance, that it gives the interviewer a degree of power and control over the course of the interview. Secondly, it provides the interviewee with a great deal of freedom to talk about their expectations, perceptions and attitudes,

and to highlight what they consider important and interesting information (Seliger and Schohamy 1989, Nunan 1992).

However, semi-structured interviews also present difficulties, as they carry with them the danger of bias. Without any experience in conducting such interviews, personal expectations could be exposed, which may influence participant responses accordingly (Oppenheim 1992).

3.3.2 Procedures for Phase 1

3.3.2.1 Preparation, access and selection

Prior to Phase 1, informal lesson observations (without the use of video camera) were conducted with two university EFL teachers in Dalian, in the North-east of Mainland China. At the same time, preliminary information on university level EFL teaching and the language choices in EFL classrooms were collected via e-mail contacts from a small number of classmates of the researcher who are working as university EFL tutors in Mainland China at the time of the study. This preliminary information gathering provided necessary familiarisation and preparations for Phase 1.

In October 2004, the personal connection approach was adopted for access and help was sought from one EFL professor who recommended that research could be conducted in those two universities in Beijing, the capital of

Mainland China. In February 2005, using the contacts established by him, teachers in these two universities were approached.

Phase 1 study commenced in March 2005, the month in which lesson visits started after negotiations on access and briefing teachers on the focus of the research. However, at this stage the researcher had not provided any detailed information on the exact focus of the research in order to minimise the potential effect on the objectivity of research. After approaching a total of 10 teachers from the two universities, all but three had shown any difficulty of accepting someone to video the lesson at that stage. Lastly, three teachers were filmed based on the criteria described in 3.2.3.2 after obtaining their consent. John and Mark's lessons were first videoed after having obtained their consent in China Blue University.

After one 50-minute lesson observation and later viewing the video on the same day a decision to exclude Mark was made. The reason to exclude Mark was because the directionality of his codeswitching was from Chinese to English; in other words, the matrix language was Chinese, which was not relevant to the current study (See the transcript sample of one of his lesson at the appendix 3.3). The matrix language for most of Mark's lessons was Chinese with occasional English embedded, which contrasted with John's lessons in which English was the matrix language with Chinese embedded. The criteria to select teachers was not made known to any teachers, especially Mark. Instead, Mark was told that because of the clash of his classes with Cindy's and also because the researcher was keen to have one female

participant, therefore, the researcher would have to stop observing his lessons. In the end, the two candidates John and Cindy amply satisfied all the selection standards and were considered suitable for being examined closely for Phase 1 study.

3.3.2.2 On the day of observation

The detailed procedure of classroom observation in Phase 1 study is presented here. On the day of the visits, I arrived a bit earlier at the classroom to familiarise myself with the venue and set up the equipment: video camera and dictation machine (the dictation machine was used in the follow-up SR sessions). The video camera was placed on a tripod at the back of the classroom on the right next to the chair I was sitting on. The camera was focused on the teacher all the time, with exceptional cases, when occasional prolonged teacher-student interaction took place, making it appropriate to move the camera from teacher to student.

The presence of another instructor as well as recording equipment may conceivably have had some effect on the way that teachers conducted the class. My principal concern in the classroom was to ensure minimal interference with the lesson and to avoid making students feel uncomfortable by reducing eye contact with both teacher and students, sitting in the least conspicuous place in the classroom and making the video camera and the filming activity as unobtrusive as possible. Moreover, although teachers might be unaccustomed to their lessons being observed, the literature on the

use of video camera provides evidence that those research participants being observed would get used to the equipment over time without significant disruption.

Although the teachers were occasionally not the focus of the camera's view, their speech was always recorded. I always stayed in the classroom while recording. Occasionally the teacher addressed me during class, for example, to ask if I knew a specific word, but usually I was not included in the class after initial introductions.

As the video camera made easy recording of the teacher's speech, I had both opportunity and time to take field notes on the activities or task types that the teacher and students were engaged in and some important and interesting reflections about the lesson.

3.3.2.3 Procedure for stimulated recall in Phase 1

As mentioned above, another important dimension of Phase 1 of the study was to pilot the use of the SR methodology for Phase 2. The practice of such a skill as the identification and presentation of SR video stimulus for undertaking SR, as well as the elicitation techniques were thoroughly tested during Phase 1. Prior to the Phase 1 study the detailed guidelines for the undertaking of SR (Mackey and Gass 2000, attached in appendix 3.4) were consulted and utilised as a map for the implementation of the Phase 1 SR

procedure and the important steps forming the Phase 1 study were detailed as follows:

1. Choosing codeswitching episodes while video-observing the classroom

This was the first step taken to prepare the codeswitching episodes which would be used in the later SR sessions with participants. When an interesting codeswitching event occurred I looked at the counter of the video camera and quickly noted down the time of its occurrence on the worksheet (appendix 3.5) so that I could visit it again later during the SR sessions. During one videoed lesson, I selected a total of four or five codeswitching episodes to use as stimulants for later SR sessions.

2. Choosing the student participants

In Phase 1 study, the selection of student participants was made towards the end of a videoed lesson. The teacher requested two students who consented to help to join me after the lesson. After the lesson, I briefly explained to the two student participants what was happening and invited one of them to come to the research room immediately and requested another one to come for the SR in about 40 minutes.

3. Introduction of the research

When the participant and I arrived at the research room, I explained the purpose of the SR and reassured him or her about the anonymity and also explained that he or she could withdraw at any stage without explaining why.

4. Conducting the research

I invited him or her to sit in front of the video camera screen, saying:

I'm going to ask you a few questions concerning what you were thinking or what went through your mind when John/Cindy switched from English to Chinese during the lesson. I will play some bits of the video tape in order to assist you to recall what was happening at the time. I will play each to you one-by-one. You can stop me whenever you remember what you were thinking, and I will also stop the tape from time to time to ask you to think back and tell me what was going through your mind.

Then I started locating the desired codeswitching episode on the video with the marking of the time of its occurrence on the counter of the VCR, and begun showing the episode to the participant, pausing to ask:

What were you thinking at that moment?

Then immediately after the question, I turned on the dictation machine. All the respondents responded in Mandarin. If the respondent started to answer, I listened. If the respondent looked puzzled, then I asked if he or she wanted

me to repeat the episode. After the respondent made the answer, I waited a few seconds and asked,

Do you remember anything else about what you were thinking at that moment?

I also asked him or her to elaborate via follow-up questions:

What do you mean by that? What makes you say that? Keep telling me what you were thinking about.

After the respondent made the answer or displayed signs of not being able to make an answer, then I told the respondent that we were about to move onto the next episode.

5. The end of the research

When the recall was about to finish, the researcher thanked the participant and offered a small gift.

3.3.2.4 Procedure for conducting the semi-structured interviews

Data with regard to how teachers perceive their codeswitching behaviours in classroom were also collected via teachers' semi-structured interviews. The semi-structured interviews with John and Cindy, lasting between forty to

sixty minutes each, were conducted, at the end of Phase 1 study. This timing permitted a degree of familiarity, rapport, and relationship to develop over the observation periods (Hamersley and Atkinson 1995). However, the interviews may enable both John and Cindy to be aware of the focus of the research by the time Phase 2 have started and therefore, their own codeswitching behaviour might have been altered as a consequence of knowing that was the behaviour under investigation. This potential limitation will be discussed in Chapter Nine as well.

The codeswitching behaviours by these two teachers might be altered due to being made aware of the issue because of the interview. The likelihood do exist however. Whether or not the codeswitching behaviours by these two teachers in the phase 2 study will be altered and if so to what extent. This potential limitation will be discussed in Chapter Nine.

The interview with John was conducted in his office, in which both notes and recording were made. The interview with Cindy was conducted in a quiet coffee bar near her school rather than her office as unlike John's she shared an office with her colleagues. Brief small talks in the beginning were conducted as a useful technique to set both interviewer and interviewee at ease, as well as to make explicit the purpose of the interview. When the interviewee had finished the answer to one question, the researcher moved to the next. Before each interview, the researcher pointed out to the participant that the information provided by them would be handled by the researcher in the strictest confidence, and that any direct quotations made in the research

would be done on the basis of anonymity and for the sole purpose of illustrating academic arguments. The entire procedure for each interview took approximately 50 minutes. The interviews were recorded by means of a dictation machine and transcribed later for the purpose of analysis.

3.4 Description of Phase 2

Phase 2 study had two purposes. One was to observe the pattern of these two teachers' codeswitching behaviours. Another purpose was to elicit what reaction students had toward such teachers' codeswitching. Appendix 3.6 provides an overview of video recorded lessons for analysis in Phase 2 study. Below let us look at the data collection tools used in Phase 2 study is looked at.

3.4.1 Data collection tools

3.4.1.1 Video assisted classroom observation

There were issues which arose from the Phase 1 study that need to be addressed in Phase 2 study in terms of the use of video assisted classroom observation. They are listed as follows:

The minimisation of intrusiveness

The use of video proved a significant challenge in the research. The first issue was the minimisation of intrusiveness. To ensure the least intrusive use of the camera, firstly, the positioning of the camera needed to be reconsidered. What had been learnt from the Phase 1 study was that according to the teacher's comments there were certain camera positions such as the front left and front right of the classrooms which seemed to be less intrusive than the directly at the back or back left and right of the classrooms. As the seats for the two classrooms under investigation in Phases 1 and 2 were not reserved for students, the earlier arrival of the researcher at the field allowed him to adopt the least intrusive positioning possible in the Phase 2 study. Secondly, to minimise the conspicuousness of the camera, the tripod used in Phase 1 of the study was replaced by a swivel laptop riser, on which the camera was placed on the desk, allowing it to be turned with ease.

In addition, experience in Phase 1 study showed that, to reserve a certain period of time, say 5 minutes, before the filming, focussing the camera on the teacher without recording would be very helpful for them to get used to the camera. In Phase 2 study, I also turned off the 'beep' function and the 'red light display' for recording, as I wanted teachers to feel less anxious about filming.

The use of video camera

In Phase 1, it was found that the earlier arrival at the research site could ensure the setting up of the camera successfully. In order to prepare the

camera, I tested the duration of the battery and found two batteries were needed to record a one-hour long lesson as well as to play and rewind during the SR sessions in cases where the plug in power supply was not available. The recording of the sound was made possible by the use of the built-in microphone from the video camera, which was tested to ensure that it produced sound of a suitably high quality. Thus, an external microphone was not needed.

The key to using the video as the provider of a stimulus is the high sound and picture quality. Other factors may also include the size of the screen display. In this study, sound and picture tests had been undertaken in the trial SR I had done with my family members. Their feedback demonstrated that the use of the Panasonic video camera, the tape and the internal microphone were adequate. The only shortfall in the equipment lay in the rewinding, which was slightly time-consuming. This highlighted the importance of noting down the precise place of the occurrence of codeswitch in the filming. In view of this, I undertook extensive targeted practices in the Phase 1 study until I felt confident. I also practised for a number of times on the use of counter functions to reach the desired episode of codeswitching in an efficient manner, which was of the utmost importance, as this was the key to bringing the desired codeswitching episode instantly to the interviewees in the SR sessions immediately after the lesson.

Other issues

There are some concerns with the classroom observation, irrespective of the use of video. For example, the Hawthorne effect (Brown 1954; Mayo 1933, cited in Mackey and Gass 2005) could undermine the objectivity of the study, as the observer might motivate the teachers to significantly alter their L1 and L2 use behaviours. The comparison of L1 and L2 use between Phase 1 and Phase 2 appeared to suggest the presence of such a danger. However, this was taken into account when designing the study, and the time-series designs were believed to be effective in reducing the Hawthorne effect, as both teachers and students became increasingly used to and natural with respect to being observed (Mellow et. al 1996).

3.4.1.2 Stimulated Recall

There were issues and lessons learnt from the Phase 1 study in terms of how best to carry out the SR. Below are measures and procedures employed in the Phase 2 study to tackle them.

Issue of timing

In Phase 1 of the study, the selection of research participants towards the end of the lesson time was time consuming. Therefore, in Phase 2 this was pre-arranged by those two teachers. In addition, the marking of the position of codeswitching episode had to be exact otherwise the location of codeswitching episodes in the SR sessions was time consuming as well.

Issue of the sampling of codeswitching for SR

Another lesson learnt from the Phase 1 study was, a decision had to be made before hand as to how many and what kind of codeswitching episodes were ideal for the SR to ensure the possible diversity of students' reactions. It was considered that four codeswitching episodes from each lesson would suffice the SR session within the feasibility of the present study. The model of the functional categories of codeswitching (Macaro 1998a) was a helpful starting point in this regard, i.e., in most SR sessions, a balanced number of codeswitches of both medium and message orientations were used.

Issue of the research room for SR

A quiet convenient research site was a must to ensure the quality of recording. In both Phase 1 and Phase 2 study, the place for research was in the same building in which the lessons were taught. Such rooms were normally very quiet in the morning. However, occasionally in Phase 1 study, the self-study room chosen in China Blue University was sometimes noisy. Therefore, action must be taken to ensure adequate soundproofing of the room as a room exclusively for the use of research was not available in the nearest distance to the classroom observed.

Issue of video camera recording

In Phase 1 of the study, occasionally, the respondents had problems of hearing the playback as the external loudspeaker on the digital Panasonic video camera was inaudible. In Phase 2, another Panasonic monologue video camera with a much louder speaker and a bigger display was used.

Issue of enhancing the quality of SR

It was found in Phase 1, sometimes, the respondents had the need to request the researcher to clarify the meaning of the term 'codeswitching' as it was too academic and sometimes confusing. In Phase 2 study I used the word 'switch' and directed them to think about the moment when the teacher was actually switching from speaking English to speaking Chinese. Some participants asked if I was to elicit their perceptions and beliefs about teachers' codeswitching in general. I replied negatively and told them that I was interested in collecting what went through their mind when the codeswitching occurred. After making this clear, I started playing the episode.

In addition, it was also important to note here, from the Phase 1 experience that, some respondents tried to detect clues, interpret and second-guess the researcher's response or facial expressions for their answer. Therefore, it was important for the researcher to remain detached and opaque as much as possible. A standardised procedure to operate the equipment and questioning was needed in Phase 2 study to ensure the consistency and quality of SR.

In both Phase 1 and 2, all SR sessions started with an explanation of the research purpose and an assurance of confidentiality after the initial introductory chat with the participant. In other words, the participant was always asked first if he or she was happy to be recorded, was then reassured both that no one else would be able to hear the content of the conversation and that no information related to the SR would be fed back to their teachers. The aim of the study was also made clear, namely, to understand their thought processes, rather than to solicit students' evaluative comments on their teachers' teaching.

3.4.2 Procedures for Phase 2 study

3.4.2.1 Procedures for video assisted classroom observation

Phase 2 of the study commenced at the beginning of the autumn term, 2005, with the prior extensive Phase 1 paving the way for the latter phase. In the Phase 2 study, the teachers were more used to the camera and the researcher's presence. The skill of the researcher in using research equipment, and techniques for conducting SR sessions had all been refined, guaranteeing the smooth collection of data in the main study.

The corpus for Phase 2 comprised of a total of twenty lessons (appendix 3.6), which were video-recorded at the start of the autumn term between late September to the mid of November. A total of sixteen lessons formed the lesson corpus for the present study because there were four lessons in which

the SR sessions did not take place for various practical reasons, for example students failed to turn up at the recall as they needed to have ID photos taken. In addition, there was one lesson I deliberately used as a warm-up before an intense video-aided observation and SR. John started his first lesson of the new term on September 26, and Cindy started her first lesson on October 11.

In this section, the focus will be the description of procedure for the SR both in and after the lesson observation. The main study began with John's lessons. On Monday and Wednesday mornings, I observed John's lessons, and on Tuesday mornings and afternoons and Thursday mornings and afternoons, I observed Cindy's lessons. Normally I arrived at least half an hour before each lesson at each visit in order to prepare equipment, preview the course book to gain ideas of what would be taught during the lesson, and position the camera. Unlike Phase 1 study, I postponed filming for roughly five minutes after the lesson had begun to minimise the impact of the camera on the teacher. As in Phase 1 study, the camera was always focused on the teacher. In John's observation sessions, the camera was always placed at the front of the classroom on the left. In Cindy's observed lessons, the camera was sometimes placed at the front of the classroom on the right-hand side and at other times on the left-hand side, with one exception, when it was positioned at the back of the classroom on the right. The change in position of the camera was thought without detriment to the sound and picture and the decision was informed by Phase 1 observation during which the positioning of the camera at the back of the classroom was considered slightly intrusive. As the seating arrangement of these classrooms was always in the form of

traditional rows of desks facing the teacher, the above shooting positions enabled the best visual and audio quality of teaching and the minimum of attention directed away from the students.

The focus of the camera was deliberately on the teachers as they were the focus of the study. In so doing, it seemed that the only thing missing were the facial expressions and body movements of the students, which were likely to affect the teacher's interpretations. This was a problem that could not be overcome for the present study. In view of this problem, caution was exercised with regard to the making of causal connections between classroom events and the codeswitching by the teacher due to insufficient observable data.

3.4.2.2. Procedure for Stimulated Recall

In Phase 2 of study, all the procedures in Phase 1 were utilised except the following improvements made based on the lessons learnt from the piloting in Phase 1 of study.

1. In respect of ensuring the quietness of the research room for John's participants, in the event of people reading in the room at the time of research, in Phase 2, in advance, I placed a slip of paper on each desk saying that there would be some disturbance due to ongoing research. Quite fortunately, the research was never disturbed by non-participants reading in the selected room.

2. In Phase 1, the dictation machine was turned on only when the respondent started to answer. However, in the Phase 2, I left the machine on when we begun talking in order to ensure not to miss anything. This would also enable me to make the later transcription easier and participants to feel less stressed. Two dictation machines were prepared and synced with the computer every time after its use to ensure the capacity. Unlike Phase 1 of the study, notes were also taken as a back-up for the dictation machine, in the event of a mechanical malfunction in Phase 2 of the study.

3. In Phase 1, the remote control of the video camera especially the 'pause' control was sometimes given to the respondent, however, as it had been made apparent that participants experienced difficulty "pausing" the tape. Control by the researcher saved time and presented the video stimulus accurately. However, the participant was always asked if they required the codeswitching episode to be repeated. In a few cases, the codeswitching episode was played a number of times until the participant signalled to stop.

4. It was also apparent from the Phase 1 study that the respondents should be given sufficient detail of the video before and after the codeswitching episode to contextualise the codeswitch so as to aid recall.

5. Those respondents were asked to leave some general comments after they finished answering all planned codeswitching episodes. This was both due to

the respondents' keen interest to talk about their general comments in Phase 1 study and also the need to address the emerging research interest in Phase 2..

6. The issue of the role of researcher and its potential effects on the data also emerged from Phase 1. In order to minimize such a researcher effect in Phase 2, every effort was made by the researcher to maintain a neutral stance, neither explicitly agreeing nor disagreeing with answers given. Gentle probing was used to encourage recollection of thoughts, rather than to suggest answers, and body language was deliberately attentive, attempting to display overt listening behaviours - nodding, leaning forward, smiling, and other actions indicating an interest in what the interviewee was saying.

7. Unlike Phase 1, at the end of the recall sessions, I requested that the participant did NOT reveal the topic to other students. This was to avoid possible opportunities for bias to occur due to prior briefing about the research. Eventually, participants were thanked with a small gift.

8. In both Phase 1 and 2, each participant was interviewed individually. On the one hand, this helped them to feel at ease with the setting and more disposed to talk. One the other hand, the danger of adopting a paired interview or a focus group was obvious as individual students' honesty tended to be overshadowed by their desire to conform to the norm.

9. There was an issue of working language with SR sessions in both Phase 1 and 2 study, as the language used between the researcher and participants was

Mandarin, the mother tongue of the researcher and students. (This issue also applies to the translation of the code-switched Chinese for the sake of the communication of the discourse analysis). In Phase 1, one SR session was intentionally conducted in English with a participant who was very keen to answer questions in English. Later when examining the audio file, problems of ambiguity and dearth of information were noted. Therefore, the use of Chinese for the SR was employed throughout Phase 2 study since the use of participants' mother tongue was believed to be the most efficient way of enabling the participants to verbalise their mental processes accurately. In addition, the use of Chinese in this study was less ambiguous and time-saving. However, it is possible that there is an issue of translation quality with regard to data analysis and reporting which will be addressed in 3.5.5.

3.4.3 Collection of data of Teacher Estimation of their Students' Lexical Knowledge (TESLK)

TESLK data was collected after Phase 2 study for two main reasons. One was a need which arose from the analysis of Phase 2 data to match the codeswitch each teacher made to TESLK data. Another one was, if it were collected earlier at the time of Phase 2 study, it would likely influence teachers' codeswitching behaviours.

To be specific, the need to focus on teachers' knowledge of students' vocabulary was due to the identification of a considerable amount of

codeswitching with the function of 'L2 to L1 translation' in the corpus of data which focuses on the less frequent vocabulary. The additional or follow-up probe into teachers' knowledge of students' vocabulary at the time of the study can, to some extent, provide triangulated evidence for the reasons and motivations behind teachers' codeswitching. For example, to what extent is the teachers' estimation of students' vocabulary competence reflected in their codeswitching decisions? In other words, ascertaining whether the teachers codeswitch out of consideration of students' needs to expand their vocabulary, or because they believe that their students already know words or phrases which might help us to understand the extent to which teachers' code-switching is based on clearly defined motivations.

The instrument for this data collection is attached in appendix 3.7. Each form consisted of virtually all of the words used by the two teachers when code-switching from L2 to L1. All of these words were mixed with other words and distracters of roughly equal level of difficulty which, however, were not used in the corpus of their lessons. On the forms the teachers were asked to look at each word and to decide if prior to the lesson he or she thought the students:

- ✓ Definitely know the words and expressions
- ✓ Probably know the words and expressions
- ✓ Do not know the words and expressions

The forms were then sent out to the two teachers to complete via e-mails. It took a minimum of two weeks for the forms to be completed and returned.

With respect to analysis, those words and phrases not contained in the corpus of lessons were removed from the forms, leaving only those words and phrases contained in the corpus and the two teachers' responses to the three options above. The number of ticks (√) for each option was then counted and divided by the total number of code-switched words and phrases, to ascertain the percentages for each option. The result was then compared and used in combination with the outcome of other analysis such as the functional analysis of codeswitching and qualitative analysis of students' reactions to teachers' codeswitching to further establish to what extent these teachers' codeswitching behaviours are principally related to the outcome of this TESLK data.

However, given a delay in data collection one may question the extent to which their recollections accurately reflect their actual codeswitching decisions. This is a quite valid issue to consider.

Nevertheless, the TESLK data and its analysis are thought adequate to provide a good description of how teachers rationalise their codeswitching behaviours. In other words, this data may be valuable in providing indirect observations of teachers' codeswitching decision-making processes.

3.5 Description of the data analysis

This section discusses in detail the analytical processes employed in the present study, including how data collected both in Phase 1 and Phase 2 studies were analysed and how Phase 2 analysis was influenced and shaped by Phase 1. The components, sequence, development, and outcomes of the analytical cycles were presented in order to enable readers to follow each and every step and procedure taken.

3.5.1 COLT analysis

The rationale for the use of COLT analysis was provided in 3.3.1.2. The procedure for carrying out the analysis is detailed below.

The first step of the analysis was to break down the videoed lessons into activities and episodes. The second step was to time each activity and episode so that a calculation of the percentage of time spent on the various COLT features could be determined. The third step was to determine the percentage of time spent on each feature, for example, within the category of 'participant organisation', what percentage of class time the teacher worked with the whole class, or did oral work; what percentage of time the students worked in groups, doing the same or different tasks etc.

To determine this, those episodes which have only one check mark or one circled check mark were first selected. Note that one check mark means

exclusive focus on that category during the episode and one circled check mark indicates primary focus (see appendix 3.1). Next, the percentage of time spent on each particular category was calculated. Not all activities consisted of an exclusive focus on one category, but might also involve other features. The analysis was then only concerned with the primary focus unless two or more categories were equally focused, which had to count as a combination of features and constituted a separate category and was reported separately.

The results and interpretation of COLT analysis will be presented in Chapter Four.

3.5.2 Timed analysis of video recordings

Teacher use of L1 or L2 is the primary focus in the current study, and its analysis can provide important evidence to address the research question detailed in Chapter Three (Research Question 1: what patterns of codeswitching are found in a purposive sample of teachers of English in one university in China?). Timed analysis refers to the analysis of classroom interaction by sampling the classroom interaction at regular intervals. The timed analysis of lesson videos via 5-second sampling was first piloted in Phase 1 of the study before being conducted in Phase 2. However, it was found that real-time coding was not possible for a variety of reasons. Firstly, it would not be possible to apply 5-second sampling in real time as:

> "it was extremely difficult to attribute [on-the-spot] codeswitching to a segment of a lesson or discourse units [such as Exchanges and Transaction], as these units were usually identifiable only in retrospect."

(Macaro 1998a: 179).

In addition, he further reasoned:

> …the speed at which RL1s(recourse to L1) within L2 boundaries (L2/////L1////L2) might occur as individual RL1 utterances would have actually made their codification into functional categories an impossibility.
>
> (Macaro 1998a: 179).

Due to the video-recorded nature of the data, the current study was able to identify teachers' codeswitches on the basis of individual codeswitching utterances within L2 boundaries without much difficulty and was also able to relate these to categories of pedagogic interaction.

Despite being time-consuming, the coding of the video data was conducted smoothly thanks to the pioneering work of Macaro (1998a:138-141), who provided a three-page, detailed manual on the coding system as well as possible solutions for the practicalities of executing tasks (see appendix 3.8). He went to great length and depth to provide this manual in order for future researchers to resolve the technical questions associated with this kind of sampling. The essential procedure of conducting such analysis is outlined here.

The timed analysis was assisted by a computer and a coding sheet based on 5 second sampling (see Appendix 3.9). The videotapes were captured and loaded onto the computer in '.DAT format' and were played in Windows Media Player during coding. Five-second sampling was undertaken by

stopping the file every five seconds, when the counter in the player displayed '0'or '5'. The decision as to what category it should be placed in was then made. The categories included Teacher use of L1 (TL1), Teacher use of L2 (TL2), Student use of L1 (SL1), and Student use of L2 (SL2). This 5-second sampling technique was employed successfully and proved straightforward and valuable for the production of a fairly accurate picture of the L1 and L2 distribution in the L2 classroom.

However, some aspects of coding needed to be dealt with carefully as Macaro (ibid) cautioned. For example, there were instances of *silence*, which were briefly embedded in the teacher's speech for a variety of reasons or purposes. Apart from using the next utterance as an identifier if the sampling point fell on a *silence* shorter than five seconds, this was categorised in the 'S' row of the coding sheet. However, Macaro (1998a) pointed out that it would be quite problematic to account for the occurrence of *silence* equal to five seconds, as it might be open to a variety of interpretations. He then made the decision to categorise the silence based on 'length' rather than 'reasons for the s*ilence*,' and thus only included the ten-second silence in the *silence* category. The other *silences* were categorised as either TL2 or TL1 according to the previous marked items, as shown in the examples taken from Macaro (1998a) below:

Example 1: TL2////[S]//// (S is part of TL2 total)

Example 2: TL1:// [S]/// (S is part of TL1 total)

Example 3: TL1://////[S]TL2//// (S is part of TL1 total)

Macaro (1998a:139).

Students' names were also another slightly problematic coding consideration. According to Macaro (ibid), if the pupil's names were spoken by the teacher they should be categorised as part of TL2, even though they were English names (N.B. In my study students' names were Chinese). For example, if the coding signal fell on a pupil's name at the end of TL1 utterance (which was then followed by a TL2 utterance), it was coded as TL2; however, exceptions would be made when the coding signal fell on a pupil's name in the middle of a TL1 utterance. In this case it would be coded as TL1. If it fell on the pupil's name at the beginning of a TL1 utterance where the TL1 utterance began with a five-second gap, it was coded as a TL1. These are illustrated by the examples taken from Macaro (1998a) below:

<signal>
Example 1: TL1//[pupil's name]//TL1(coded as TL1)

<signal>
Example 2: [pupil's name]//TL1(coded as TL1)

<signal>
Example 3: [pupil's name] [5 sec.S]//TL1(coded as TL2)

<signal>
Example 4: TL1//[S][pupil's name]//TL2(coded as TL2)

(Macaro 1998a: 140).

In addition, students' individual or choral responses were all classified as SL2. The procedures discussed were followed precisely in the analysis of the present study. The use of the computer for 5-second sampling analysis may work better than the use of a tape with a 5-second beep because the lesson

time is automatically shown in minutes and seconds. Even though the two procedures would yield the same reliable results, the total lesson time and the total number of 5-second intervals (total lesson time in samples) would match seamlessly and there would be no discrepancy occurring as a result of lapsed concentration. The computer was more technologically advanced and could be operated with ease.

3.5.3 Function (discourse) Analysis of codeswitching bounded by L2

In this section, methods and procedures for the analysis of the functions of codeswitching are examined in the context of discourse. There are quite a number of models which can be applied for analysing the functions of L2 classroom codeswitching. These may include models:

- borrowed from analysing codeswitching in naturalistic settings such as Gumperz (1982) and Myers Scotton (1993)
- merely focusing on the pedagogical aspect of L2 classrooms such as Duff and Polio (1994)
- based on the combination of the pedagogy and discourse theories such as Macaro (1998a) Kim and Elder 2005

The present study adopted Macaro's analysis framework which includes L2 boundary and the functional distribution of codeswitching. Macaro's (1998a) functional model of teacher codeswitching provides the framework for analysis in this chapter. One of the advantages of this particular functional

model is that, in addition to its root in discourse analysis theory, it classifies classroom interaction in functional categories. Functional analysis has, as Macaro suggests (ibid: 208), the advantage of providing the 'trigger and coherence' for discourse analysis (Sinclair and Courtland 1975; Sinclair and Brazil 1982), which in turn can enable the researcher to see beyond the codeswitch identified by the L2 boundary approach (Macaro 1998a:142). In other words, the interpretations of codeswitching will not only be based on the surface level, but will also be examined more in terms of the 'deep structure' of the classroom interaction, which is likely to be compounded by a number of variables such as issues of input and interaction, classroom decisions, the socio-cultural aspect in the language classroom and the like.

This model categorises each instance of codeswitching bounded by the L2. The L2 boundary refers to the way to sample a single occurrence of codeswitching within the sufficient L2 boundary. This L2 boundary may prove superior to C-unit (Loban 1966) [6]in that where C-unit starts and stops seems to be ambiguous. In addition, L2 boundary was fairly straightforward to identify if the discourse background to the codeswitching is L2 language dominant. The primary focus of this study will be those codeswitching episodes which occur in a roughly L2 dominant discourse switching from the direction of L2 to L1. This concurs with the idea from Macaro (in progress) that codeswitching is bounded by sufficient L2.

3.5.3.1 Transcribing the codeswitching episodes

[6] C-unit refers to a communication unit. It "could be a word, phrase, or sentence that in some way contributed pragmatic or semantic meaning to a conversation" (Duff 1986:153).

After for the timed analysis via watching and sampling the video recording, the transcription of the codeswitching segments ensued. The decision to transcribe only those codeswitching segments instead of transcribing the whole corpus of lessons was determined primarily by the research focus as the codeswitching segment was one particular classroom event that required detailed investigation. Not every detail of 16 hours of video data needed to be transcribed in light of the research objective of the present study since this process was so laborious and time consuming.

The L2 boundary approach was used to transcribe those periods of video recording in which teacher codeswitching occurred. Sufficient 'clearance' was allowed both before and after the occurrence of an instance of codeswitching in order to ensure, as far as possible, that the function of the codeswitching could be deduced from the transcription and the possible causes of the codeswitching could be hypothesized. Sometimes, as required by the task of mapping the codeswitch onto the discourse context, the discourse context from which the codeswitch occurs was transcribed as well, for example at the level of transaction (Sinclair and Coulthard 1975).

3.5.3.2 Coding the transcribed segments of codeswitching

After transcribing all those codeswitching episodes, they were coded in terms of length, type, orientation and functions. For example, the following codeswitching was taken from lesson four of Cindy's observed lessons.

Example 407

Cindy is helping the class to tackle some less frequent and ambiguous vocabulary on the reading extracts:

---

1 ....OK, in Paragraph Four you may find that your values, your prejudices
2 are challenged. Values here means, in Chinese, means **价值观，价值观**.
3 [tr: a person's principles and standards of behaviour, a person's principles
4 and standards of behaviour], Ok, paragraph twenty,...

In this example, the codeswitch in bold was identified as it was bounded by L2 (L2/////L1////L2). It was possible to code it as 'medium-orientated, 1:30, translation L2 to L1.' The discourse objectives for each transaction were also utilised in the analysis of codeswitching. In this particular example, it is perhaps evident that the discourse objective for codeswitching was to focus on form and was pre-planned.

Once the transcriptions of codeswitching episodes were completed by employing the L2 boundary approach, each codeswitching episode was further coded in terms of the following categories:

- Length (How many Chinese characters does the Code Switched L1 have in this codeswitching segment?)
- Type (Is this codeswitching segment an inter-sentential codeswitching or Intra-sentential codeswitching?)

- Orientations (Is this codeswitching medium-oriented or message-oriented?)
- Functions (Does this codeswitching have one or many of the functions of Macaro's 1998a model?)

The coded data was then loaded onto an SPSS file for analysis.

3.5.3.3 Discourse analysis of codeswitching episodes

Within Macaro(1998a)'s model in each category some interesting coded codeswitching segments were further chosen for qualitative analysis. It would be impractical to report the qualitative analysis of each single codeswitching instance, even if it were possible to code them by applying the L2 boundary as the unit of analysis. This is impossible, in the present study, where more than 700 instances of codeswitching were identified by the L2 boundary approach in 16 observed lessons. The choice and presentation of the outcome of analysis therefore, had to be sampled and the following criteria were applied in the selection of codeswitching for analysis to ensure:

- Maximum representativeness of all kinds of categories;
- A balance between the analysis and the space;
- The possibility of comparison of the analysis with students' reactions in Chapter Seven.

Coded codeswitching segments of the same category were compared and analysed according to their discourse objectives, discourse features and their potential pedagogic values contributing to SLA. Some types of codeswitching were categorised further. For example, the medium-oriented codeswitching with the function of translation L2 to L1 were categorised further according to what discourse features preceded and followed them, and this provided further interesting insights into the pattern of codeswitching as discussed in detail in Chapter Six.

3.5.4 Qualitative analysis of stimulated recall data

3.5.4.1 Analysis techniques

Seliger and Schohamy (1989) recommend two techniques for analysing qualitative data, namely an inductive procedure and a deductive procedure. The major difference between these two measures is that while the former has a pre-established category, the latter does not. In the analysis of SR sessions an inductive approach was deemed appropriate for the purpose of this study. In the inductive procedure a set of categories needs to be derived from the data itself prior to the analysis. Once the categories have been identified they can be applied to the remainder of the data; the categories continue to be refined and new commonalities or patterns are discovered. This type of research study is usually descriptive and exploratory in nature.

In the present study, the recorded audio SR sessions were transcribed in full using Word software. The gender of the participant, the number of the audio file and the details of codeswitching episodes used for the SR are clearly stated. Transcripts were marked with 'R' and 'M/F S' for researcher and students comments, but individual students were not identified, thereby securing the confidential nature of the data. Since the aim of the analysis was to understand how students reacted to teachers' codeswitching behaviours, data irrelevant to this focus was discarded. Such data was limited to those unrelated to students' reactions to teachers' codeswitching. Other reasons for excluding pieces of data were that they included informal chatting between the researcher and student participants; for example, chat while rewinding the tape. However, as these occasions of completely irrelevant recall data were few, very few data were discarded in this way.

The transcription conventions employed can be found in appendix 3.10.

3.5.4.2 Coding

In Phase 1 of the study, the primary focus was not on students' reaction data, but rather on testing of the instrument. Therefore, as a whole the number and quality of codeswitching chosen for the pilot SR could not be compared in terms of rigour with Phase 2. Despite that, transcripts for the recorded SR session in Phase 1 were read to gain an initial idea of what students' reactions would be like in order to prepare the mechanism for analysis in Phase 2 of the study.

After transcribing the audio files, the transcripts were read several times to enable me to become familiar with themes, and gain some insights in relation to analysis possibilities. What followed was coding, the purpose of which was to break down data in order to examine, compare and identify patterns. 'Coding', to quote Miles and Huberman (1994:56), is analysis, codes, 'tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study'. These were revised while re-reading the transcripts, so that they would, as tags, express better the assigned meanings. In order to obtain codes, transcripts were read on the computer and a series of codes were noted in the margins. This coding procedure was open and comparative with data being read back and forth until everything was coded. The codes were written in the space for 'comments' in the function of 'track changes' of the Word programme.

In the next step, codes were grouped into themes. At this stage of analysis, a certain distance was needed by the researcher to step back from the microscopic inspection of data that the coding process required in order to make sense of the broader picture that was emerging. During this stage, themes or patterns in the data were identified when a code was seen to repeat a number of times. Hence, the codes could be grouped further into categories.

At this stage, when a pattern was identified in the data from the first few SR sessions, the pattern was tested to see if it fitted the data from the remaining sessions. When multiple readings of the data no longer provided new themes,

theoretical saturation was deemed to have been reached (Strauss and Corbin, 1990). After analysis, some broad categories emerged. Broad patterns are like reactions to specific types of codeswitching (strategic reactions and attitudinal reactions) and reactions to codeswitching phenomenon in general (positive, negative and neutral).

The above stages were carried out with data from each classroom separately, which made the subsequent comparison between these two teaching groups possible.

3.5.4.3 Comparing two teaching groups

The analysis so far was within the cases but having two groups in the sample opened up the possibility of extending the understanding by means of cross-case analysis. In the final step, variations within each teacher group were summarised and compared with the other teacher group to draw some commonalities and differences. At this stage a cross-case analytic framework was needed to emerge from and build on the understanding gained from the within case analysis. The central feature of this analysis was writing up discussion of findings from both groups in some detail before conceptualising how the two sets of findings came together.

3.5.5 Issues of translation

The SR recall sessions were transcribed in Chinese and then translated into English by the researcher. The decision to employ the translation approach

was not a straightforward one. This is because if the translation were focused more on the aspect of meaning, this would be likely to produce a text which read in a less oral style. Alternatively, if one focused too much on the literal translation of Chinese spoken discourse, the English text translated would be too rigid and sometimes nonsensical. Therefore, I adopted the former approach, prioritising the translation of meaning, even though this ran the risk of producing transcripts that read in a less natural way. Notwithstanding, the effort to ensure the accuracy of the translation should never be compromised, despite the fact that certain features of the spoken genre might be lost when readers read them.

The final version of the translation for all the transcripts of the SR sessions as well as the translation of codeswitching episodes were handed to another Chinese colleague fluent in both English and Chinese, to check for errors and discrepancies. Changes and improvements were made in response to her feedback in order to ensure the highest quality of translation.

3.6 Ethical considerations

Ethical issues were important considerations in this study. An awareness of the ethical concerns implicit in the methodological approach to this study and being prepared to deal with ethical dilemmas and problems that might arise when working in the school setting was essential here. What follows is a brief review of the ethical issues encountered in this study and the detailed strategies and processes taken to address the challenges directed at the researcher.

The respondents in this study consisted of university EFL teachers and their students in Mainland China. Though it is unlikely that the problems pertaining to research into children will apply in this study, this does not indicate that the ethical decisions are unproblematic in the study of adult students. As indicated above, despite some variance in application of ethical standards in different societies one has to strive for the best ethical standards in the conduct of the research. Thus, BERA's (British Education Research Association) guidelines on ethics were followed throughout the study.

3.6.1 Informed consent and the minimisation of harm

Bogdan and Biklen (1992) claim that ethics in qualitative research is dominated by two concerns: informed consent and the protection of subjects from harm. When people are being observed, whether they are aware of it or not, ethical issues arise that must be considered by the researcher. Particularly advances in technology, cameras and microphones have made it possible to gather a significant amount of information about verbal and non-verbal behaviour of people that might easily be considered to be an invasion of privacy, particularly if the subject is unaware of being observed, yet the information is used to make decisions that impact on the subject.

Therefore, the purpose of the study was made as explicit as possible to the participants, who would be assured that they would be absolutely free to withdraw from the study at any stage without any penalty (Beauchamp 1982).

In the process of data collection, time was spent informing the participants of the purpose of the investigation and it was made clear that this study was not being conducted for any evaluative purpose.

Furthermore, the teachers involved in the study always knew in advance which lesson I was intending to film. They were offered the option of refusing to be videoed prior to each lesson and refusing to consent to the submission of the lesson as data after filming. No disapproval was ever expressed. This process was repeated with every student participant at the beginning of each of the Recall Sessions. No refusals were made by the student participants.

The information given to gatekeepers and informants may be in some studies difficult and sensitive. There is an ethical danger of deliberately hiding the true intention of the research on the one hand, and revealing too much information about the research on the other, as this may lead the informants to feel self-conscious about target behaviours. In the present research, the approach of being honest about the broad research objectives and being vague and imprecise about the exact research questions was adopted with the aim of minimising the danger of revealing too much information about the research, while remaining within the strict parameters of the ethical guidelines. Participant teachers were provided with information concerning the study's aims and methods.

However, to reduce the danger of undue influence on the teachers, focus on the functions of codeswitching was made explicit, while the intention to measure L1 and L2 distribution in the observed lessons was described vaguely. Both teacher and student participants were made aware that the research focus was on the description of the codeswitching behaviours and their possible impact on the cognitive processes of the learners. Ideas such as the optimal use of codeswitching, the debate about L1 and L2 use in L2 classroom were not brought forward deliberately for discussion. In the SR, students were made aware that the researcher was focusing on their strategic reactions, rather than asking them to pass judgement on the teachers. The term 'codeswitching' was used throughout the study, as it was believed to be less threatening than the term L1 and L2 use.

3.6.2 Confidentiality

Confidentiality in relation to the information shared with the researcher is central to ethical behaviour. Thus, complete anonymity was maintained throughout the research and in the findings schools and persons were described in general only; schools and teachers were given pseudonyms, and the names of the pupils were changed.

There were other issues, such as one ethical concern related to the process of collecting data about teachers from their students. There was concern and interest from the teachers about what the students commented during the SR, especially with Cindy. For example, sometimes when I finished the Recall

Sessions, she would ask me how it went. In response, I talked in detail about what the students had been thinking and their interesting comments without sounding judgemental and evaluative. My remarks were always neutral and did not contain any comments from students as to the use of L1 or L2 in the lesson, about which Cindy might have been sensitive. Once, I invited her to listen to the SR sessions with me. However, she did not appear interested in doing so. Similarly, John did not show any interest in asking me to report back the comments about his codeswitching behaviours.

To sum up, as Taylor and Bogdan (1998:37) point out, in matters of ethics, researchers must balance their multiple responsibilities to their profession, the pursuit of knowledge, the society, their informants and ultimately themselves.

Chapter Summary

In this chapter, those methodological constructs pertinent to this study have been reviewed. The detail of the data collecting tools, data collecting procedures and analysis were provided. Wherever possible the decisions made in terms of the design, methods and analysis were outlined. Lastly, the issue of ethical concerns were also discussed. In the next four chapters, the results of the pilot and the main study will be presented one by one.

Chapter Four: Results from Phase 1 of the Study

Introduction

As stated in Section 3.3 of Chapter Three, Phase 1 of the study was preparatory. It was undertaken to fulfill functions such as the training of the researcher, rehearsal of the whole data collection and analysis procedure, as well as preliminary analysis of those two teachers selected for the study to determine the communicative features of their lessons. This chapter comprises two main parts. The first reports the results derived from the analysis of the observed lessons of Phase 1 via timed analysis and COLT analysis. This will bring readers close to the phenomena investigated in this study, and will offer them an initial impression of the target behaviour in the study. In particular, the issue of communicative features related to the classrooms in this study will be discussed in relation to the results of the COLT analysis. The second part of the chapter will present the results of the two teacher interviews conducted in Phase 1. The interviews required both teachers to report their attitudes towards, and beliefs about, teachers' codeswitching behaviour in L2 classrooms.

4.1 Results from lesson observations

The results of both timed analysis and COLT analysis are presented respectively below, beginning with those from timed sampling.

4.1.1 The results of timed sampling

Table 4.1 and 4.2 present the statistics on teachers' use of L1 obtained by sampling classroom interaction every 5 seconds. On average, the teacher's use of L1 in John's lessons is approximately half that in Cindy's. It is interesting to note that John's lesson 1 has the least amount of teacher use of L1 in the whole corpus, while Cindy's lesson 1 has the highest. This contrast may be ascribable to the variance in lesson content and activities. In other words, the more challenging the lesson is to the students in terms of its content, the greater the likelihood of an increase in L1 on the part of teachers (cf. the topic for Cindy's first lesson in Table 4.2).

Table 4.1: Percentage of L1 by teacher in lessons in phase 1 study

	Mean	*SD*	Range
Cindy	16.1	11.2	21.9
John	8	*3.1*	6.1

Table 4.2: Measures of teacher talk obtained from the 5-second sampling technique in Phase 1 study

Percentage of total lesson

Teacher and lesson	Lesson topics	Length of lesson in minutes	Class level	Percentage of teacher talk to lesson	Teacher talk in L1	Teacher talk in L2
Cindy 1	Lateral thinking	82	Undergraduate 1st year	80.1	28.3	52.2
Cindy 2	Test related practice 1	86	Undergraduate 1st year	78.6	6.4	72.2
Cindy 3	Test related practice 2	80	Undergraduate 1st year	94.2	13.5	80.7
John 1	Growing up is a hard thing to do	99	Postgraduate 1st year	85.7	5.2	80.3
John 2	Nowhere to hide	94	Postgraduate 1st year	89.9	11.3	78.6
John 3	Lies & truths	93	Postgraduate 1st year	78.0	7.6	70.3

Percentage of talk

Teacher and lesson	Lesson topics	Length of lesson in minutes	Class level	Percentage of teacher talk to lesson	Teacher talk in L1	Teacher talk in L2
Cindy 1	Lateral thinking	82	Undergraduate 1st year	80.1	35.2	64.8
Cindy 2	Test related practice 1	86	Undergraduate 1st year	78.6	8.1	91.9
Cindy 3	Test related practice 2	80	Undergraduate 1st year	94.2	14.3	85.7
John 1	Growing up is a hard thing to do	99	Postgraduate 1st year	85.7	6.1	93.9
John 2	Nowhere to hide	94	Postgraduate 1st year	89.9	12.6	87.4
John 3	Lies & truths	93	Postgraduate 1st year	78.0	9.8	90.2

Overall, the mean for teachers' L1 use for the whole corpus is 12.1% (*SD*=8.5, Range=23.1). This is well below the average of the findings in the literature, despite the existence of a sizable range. This confirms the appropriateness of the decision to select these two teachers as participants in the main study.

4.1.2 The results of the COLT analysis

COLT analysis was employed to assess the communicative nature of the lessons of the two teachers. All six lessons from the two teachers have been broken down into activities and episodes so that a calculation of the percentage of time spent on the various COLT features can be determined. For the analysis, the use of check marks at those features describing the activity or episode makes it possible to achieve an overall picture of each event in the classroom. Not all activities consist of an exclusive focus on one

category; some might also involve other features. The analysis is then only concerned with the primary focus unless two or more categories are equally focused upon, which must count as a combination of features and constitute a separate category. The results in Part A are based on a total of 530 minutes of lesson videos. The figures in Tables 4.3-4.10 show the percentage of total time spent on each category. Let us interpret each of the tables in turn.

Table 4.3: Classroom interaction participant organization (%)

	T-S/c			S s/c			Chorus			Group			Individual		
Lesson	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
John	100 E&P	100 E&P	100 E&P	-	-	-	-	-	-	-	-	-	-	-	-
Cindy	86 E	93.1 E&P	100 E	-		-	14 E	6.9 P	-	-	-	-	-	-	-

Note: E =exclusive focus; P= Primary focus; E&P=both exclusive and primary focus.

Firstly, it is obvious from Table 4.3 that 'teacher to whole class' is the only participation pattern in John's lesson, and is predominant in Cindy's. This pattern is not at all surprising in the context of university EFL participation in Mainland China. Indeed, it would also be anticipated throughout the public education sector, as the sheer size of classes (for example, with more than 30 students per class for the two teachers in this study) may preclude the possibility of more student contribution opportunities and time. However, as lesson observations indicate, both teachers endeavour to minimise the effects of large classes by moving about constantly in the classroom and interacting with students as closely as possible. In addition, as shown in some of Cindy's lessons, choral work (see Table 4.2) is a common strategy resorted to by teachers to remedy the problem of lack of group and pair work for students.

Table 4.4: Lesson content: language (%)

	LANGUAGE							
	Form			Function			Discourse	Socio - Linguistics
Lesson	1	2	3	1	2	3	-	-
John	24.9 E	35.2 E&P	16.3 E	75.1 P	64.8 P	83.7 E&P	-	-
Cindy	100 E &P	49.1 E&P	80.9 P	-	-	19.1 P	-	-

Note: E =exclusive focus; P= Primary focus; E&P=both exclusive and primary focus.

Secondly, in respect of lesson content, the prevailing focus observed in this category is on form and function as well as procedural management. According to Table 4.4, it appears that John's lessons have more focus on function than do the majority of Cindy's, while discourse and sociolinguistic sub-categories rarely appear in the classroom. This means that in John's lessons, most time is devoted to function, while the reverse is true in Cindy's.

Table 4.5: Lesson content: management (%)

	MANAGEMENT			
	Procedure			Discipline
Lesson	1	2	3	
John	100 E	100	100 E	-
Cindy	100 E	100	100 E	-

Note: E =exclusive focus; P= Primary focus; E&P=both exclusive and primary focus.

There are no discourse (the way in which sentences combine into cohesive sequences) or sociolinguistics (focus on forms or styles) which appear in the lessons of either teacher.

Table 4.6: Lesson content: other topics (%)

	OTHER TOPICS					
	Narrow			Broad		
Lesson	1	2	3	1	2	3
John	9.8	59.3	16.3	-	40.7	83.7
Cindy	23	23.7	4.1	77	76.3	95.9

In the light of Table 4.6, it is apparent that both Cindy and John have a balance of topics that include both narrow subjects (those referring to the classroom and the students' immediate environment and experiences) and broad subjects (all subjects not classified as narrow). The focus on narrow or broad topics sometimes can be somewhat ambiguous.

Thirdly, with respect to 'content control' (Table 4.7), John's lessons demonstrate a tendency toward dominant teacher control over the content, although a small amount of teacher-and-student-combined control over the content is also evident. Cindy's lessons displays a similar pattern, with the exception of one lesson in which both teacher and student controls are dominant. Neither of them demonstrates any control over the content by the student alone.

Table 4.7: Lesson content control (%)

	Teacher/text			Teacher/text/stud			Student		
Lesson	1	2	3	1	2	3	1	2	3
John	100 E	90 P	85 E&P	-	10 P	15 E	-	-	-
Cindy	83.03 E	77.1 E	19.1 E	16.97 E	22.9 E&P	80.9 E	-	-	-

Note: E =exclusive focus; P= Primary focus; E&P=both exclusive and primary focus.

Fourthly, Table 4.8 shows the outcome of student modalities, indicating that listening seems to be the most common skill practice of these two teachers. While there is evidence of a little speaking focus on the part of the students in Cindy's lessons, in John's there is none. This may indicate that the two classes (i.e., undergraduate vs postgraduate) have a number of different curriculum goals. Indeed, one primary objective of Cindy's class is to help to improve students' listening and speaking in order to meet the new curriculum goals required in the new national syllabus for university EFL education (MOE: 2004).

Table 4.8: Student modality (%)

	Listening			Speaking			Reading			Writing	Other
Lesson	1	2	3	1	2	3	1	2	3		
John	100 P	90 P&E	100 P	-	-	-	-	-	-	-	-
Cindy	86 P	100 P	100 P	14 E	-	-	-	-	-	-	-

Fifthly, with regard to materials used in the classes of the two teachers, Table 4.9 demonstrates that minimal text containing isolated sentences and word lists is not the norm in the lessons of either teacher. Both teachers use a predominant number of extended texts, including stories, dialogues and connected sentences. The source of material for both teachers at the time of Phase 1 of the study was native speakers' writing with different foci. Cindy's material has a target focus on non-native speaker students, while John's material comprises content for native speaker academic material. This probably indicates that John's lessons vary from Cindy's in terms of the authenticity of materials. Neither of the teachers' lessons utilise any student-made materials.

Table 4.9: Source of teaching materials (%) (1)

	TYPE											
	Minimal Text			Extended Text			Audio			Visual		
Visit	1	2	3	1	2	3	1	2	3	1	2	3
John	24.4	39.9	16.3	75.6	61.1	83.7	--	-	-	-	-	--
Cindy	0	35.9	0	100	64.1	100	-	-	-	-	-	-

Table 4.10: Source of teaching materials (%) (2)

SOURCE											
L2-Non-native speaker			L2-Native speaker			L2-Native speaker authentic			Student-made		
1	2	3	1	2	3	1	2	3	1	2	3
-	-	-	-	-	-	100	100	100	-	-	-
100	100	100	-	-	-	-	-	-	-	-	-

Summary of 4.1

To conclude, the classrooms of both teachers possess a number of features which accord with the recommended criteria for communicative language teaching in the literature and, at the same time, miss out other features. Nevertheless, the result via COLT analysis does not discourage us from considering the two classrooms to be communicative to a certain extent. If the criteria for communicativeness of a FL classroom are based upon meaning-oriented interaction, it is probably reasonable to say that the two classrooms are communicative, in view of the considerable number of meaning-based activities taking place in them. They are unidirectionally communicative from teacher to students. Moreover, they are communicative in that they focus upon authentic and semi-authentic texts.

In the next section the results from teacher interviews with respect to the issue of classroom codeswitching will be presented.

4.2 The results of teachers' interviews

Two teacher interviews were conducted towards the end of Phase 1 of the study. (See Chapter Three for detailed procedures. A fuller transcription of the interviews can be found in Appendix 4.1 and 4.2). The results of the two teacher interviews are summarised and presented in this section. The order of presentation will accord with the order in which questions were raised in the interviews.

4.2.1 Question category one

What do you think of students using all or nearly all FL in the classroom? Why? Where do these beliefs come from?

Basically, the first question asked is concerned with the issue of L2 exclusivity in the classroom. When asked about their views on the issue, one of the two interviewees, Cindy, made the following comments first:

> Because I'm teaching non-English major students, if I force them to speak English all the time, I mean, one hundred percent in English in the classroom, I think, they will feel very awkward. They won't feel very, you know, happy about themselves and they may lose their confidence, so I wouldn't force them to speak English. If they can't use English, they say sorry, it's ok, they can say in Chinese. I just need their idea. I never force them to speak English.
>
> (Cindy).

Cindy expressed her concern about the negative effect of L2 exclusivity on her students. She made it clear that students' anxiety and lack of confidence would be primary considerations in her decision not to force students to stay in L2. However, she went on to admit that:

> For their (learners') benefit, I think it's better for them to try to speak English as much as possible. But I'm afraid that their level cannot reach that.
>
> (Cindy).

What can be gleaned from her somewhat contradictory comments is that she seems not to be in favour of a rigid and extreme view of the use of L1 in the L2 classroom, and that her attitude clearly indicates that she adopts a maximalist position toward the issue.

Similarly, when asked the same question, the other interviewee, John, seemed to favour the same position in terms of L2 use. This is evident in his remark:

> I think the ideal teaching should be conducted 100% in English. I mean, the ideal teaching.
>
> (John).

However, this, as he insisted, has to be achieved without compromising the comprehension between teacher and students.

> But the condition for this ideal teaching is that both teachers and students have absolutely no difficulty in understanding each other. This should be a goal that we are after, but if this condition was not available, codeswitching, or the use of Chinese (L1), seems necessary.

(John).

In addition, he referred to L2 exclusivity as a somewhat distant objective that should be aimed at, and suggested that codeswitching may be transitory. This attitude towards codeswitching, consistent with other studies in the literature, regards codeswitching as transitory with no pedagogical value.

When asked about the source of their beliefs on the issue, both linked them to their personal and teaching experience.

4.2.2 Question category two

Have you ever heard about total immersion in FL classes? What do you understand by it? How do you react to this?

Cindy replied that she had never heard about the term 'immersion', but that she thought she understood the idea. Her comments are as follows:

> When I studied English, at that time, when native speaker teachers teach us spoken English, we haven't got any chance to speak Chinese. I think that's a kind of immersion. Is that right?

(Cindy).

Her identification of an immersion approach adopted by a native speaker teacher appears to point out an interesting fact that in most cases, the absence of use of L1 in immersion classrooms is not because it is banned or suppressed for principled reasons, but because use of L1, for most non-native

speaker teachers, is unattainable due to their lack of command in their students' L1.

Level of learner competence in L2 seems to be quite important in the following comments made by John:

> Ah, the thing is, well, immersion, as I just said, is ideal but regrettably, it would be less easy to do it in a classroom full of advanced level learners, I think. What do I mean by that? For example, for children learning words, immersion is practically possible, some flashcards and drawings, you say 'book', the child follows you and repeat 'book', and you don't need to say the complete sentence and you don't need to express your ideas. In this case, the immersion approach can be applied. But as for the real exchange of ideas in the class, this approach is inferior, a bit impossible to do. But of course, when learners move up one more level, immersion may be helpful again for real communication.
>
> (John).

It is quite interesting to note that John thought that immersion was more congruent with learners of lower levels, that is to say, beginner or pre-intermediate level learners; and he thought that this approach might be difficult to deliver a large number of communicative messages.

4.2.3 Question category three

Do you believe that Chinese should be used for: 1) learning about grammar and usage of the FL? 2) Instruction, e.g. to discuss tests, quizzes, and other assignments? 3) Discussing course policies, attendance, and other administrative information?

Cindy emphasised the role of L1 in teaching grammar. She gave an example of teaching the 'subjunctive mood', as explanation of such a grammar point required reference to a large number of difficult technical terms.

> Yeah, of course. I think Chinese is very important in teaching students learning grammar, and because if I teach them, say, I teach you the subjunctive mood, if I don't say 虚拟语气[SUBJUNCTIVE MOOD], probably most of them can't understand this very technical term. They cannot understand it.
>
> (Cindy).

She also disclosed that she employed the use of L1 to perform message-oriented functions such as talking about course-related policies, and giving instructions for exams and assignments. In doing this, she admitted that she tended first to speak English and then repeat in Chinese to ensure that the students, with different abilities, all understood. She also used Chinese to reprimand students, and to show her anger. This was confirmed in the Phase 2 study in which she reprimanded one student for he was not concentrating on the study. She claimed that she instinctively felt such use of L1 for reprimands would be better received. However, she did not make any reprimands toward the whole class.

John felt that the issue of L1 use was not a matter of 'should or should not'; rather it was a practical matter. He felt that communication would be impeded when teaching grammar if L2 were used exclusively:

> I think this is not a question of should or should not; if you do not use it in the situation, students can't make sense of what is going on.

> Communication then breaks down. In this case, the use of Chinese should be permitted.
>
> (John).

He also insisted on the use of L1 when he wanted his students to be absolutely clear about his requirements. The use of some L1 could function as a reminder, emphasis and a kind of warning. However, he mentioned his use of L2 to reprimand and force his students to speak L2; sometimes, for example, when someone was late for the class. This may serve to mitigate the effect of using reprimands in L1.

4.2.4 Question category four

Regardless of how much L2 students choose to use: 1) should the instructor use the L2 at all times in the classroom? 2) Should L2 students use the L2 the entire time they are in the classroom with both the instructor and fellow students, even when not working on a specific activity?

Cindy thought that teachers should use L2, but not exclusively. She further related the issue of the use of L1 to the level beyond the mere teaching of a FL. She made the following interesting comments:

> I don't think sticking to the use of the target language exclusively is exactly good. Sometimes, I need to use the mother tongue to give them (students) some ideas to open their minds. But speaking the target language only to them? Probably they cannot think in a proper way, they cannot think as openly as possible. They cannot achieve that goal. If we use the mother tongue, sometimes probably they can, I think, they can use, like, we say, sometimes apply some lateral thinking instead of vertical thinking; that is to say, think more open-mindedly. Because higher education for me is just like elevating one's mind, improving one's ways of thinking apart from just teaching them English.

(Cindy).

Her comments not only touch on the issue of the language of thought, but also place the issue of L1 use in the broad social cognitive context of learning a foreign or second language.

When asked about the same question, John asserted that students' comprehension should be taken into account and perhaps prioritised in making the decision to switch. He acknowledged that L2 exclusivity would be ideal; however, it was not always possible. As an alternative, he admitted that he encouraged students to codeswitch, even though it might be difficult for them. He also believed that codeswitching was a skill accomplished by bilinguals.

4.2.5 Question category five

Have you come across the term 'code switching'?

Cindy admitted that she had probably encountered this in her postgraduate study. John replied that he knew the term 'codeswitching'.

4.2.6 Question category six 198

How would you describe your approach, or method, to teaching English? 1) Grammar translation; 2) Communicative approach; 3) Direct method; 4) A mixture of the above.

Cindy claimed that she probably used a mixture of the methods. John personally favoured the communicative approach but admitted that his approach might not be that. John's answer clearly contradicted what he introduced earlier at the beginning of the phase 1 study that his class was exclusively in L2. There was also a discrepancy in what he believed and what he did. Nevertheless, as stated in the summary of 4.1, these two teachers' classrooms were broadly communicative as in their lessons there was a considerable amount of functional aspect of teaching.

4.2.7 Question category seven

What would be, for you, appropriate use of Chinese in an English lesson? In functional terms, what would be its purposes? In qualitative terms, roughly what percentage do you use?

This question elicited their opinion about the appropriate use of L1 and for what purposes. Cindy's answer was that, with regard to the function of L1 use, it should be used for explaining difficult language points, teaching grammar and vocabulary, stimulating learners' minds and arousing their interest in learning English. The amount of L1 Cindy thought should be used was 20 percent or less. John's answer with respect to functions was that L1 should be used for emphasis, or for the expression of humour. Above all, it should be used to ensure comprehension and clarity. Quantitatively, he thought the amount of L1 use might vary, and had no clear idea about a precise percentage.

4.2.8 Question category eight

What influences your amount of L1 use and choice of functions for L1 use: 1) Government? 2) Institution? 3) Students' requirements/expectations?

When asked about what influenced their response to the above question, Cindy claimed her answer was half-derived from the students and half-derived from herself. John attributed the influence to his personal teaching and learning experience of English.

Summary of 4.2

Both teachers believed that ideally, teaching should be exclusively conducted in L2 and should provide students with maximum opportunities for practice, although sometimes, this ideal appeared to be virtually impossible to achieve in reality. In other words, both teachers can be categorised as 'maximalist' (cf. Macaro's three positions in 2.2 of Chapter Two).When addressing the issue of codeswitching, both agreed that students' comprehension problems as well as their anxiety related to TL use needed to be taken into consideration.

Furthermore, both acknowledged the role of L1 in learning to some extent and concurred that L1 could perform various pedagogical functions, especially enhancing some formal aspect of teaching.

However, it would appear that they disagreed on the amount of L1 that should be used. Cindy held that less than 20 % of L1 use was appropriate, while John had no clear idea in this respect. Both recognised themselves as the source of their beliefs about the issue of codeswitching.

Chapter Summary

In the first part of this chapter, the result of the timed analysis shows that the amount of L1 use in the pilot lessons is relatively lower than the average of previous studies in the literature. The outcome of the COLT analysis has also confirmed that in these classrooms, a considerable amount of meaningful communication, centring on authentic and semi-authentic texts, took place. However other communicative criteria in the COLT were absent from these pilot lessons. Nevertheless, the classrooms can be considered broadly communicative and appropriate for the purpose of Phase 2 of the study.

With respect to the results of teacher interviews in the second part of this chapter, both teachers seemed to be maximalists, with the belief that exclusive L2 use was desirable. However, the ideal was not attainable in reality, due to complex variables such as students' diverse abilities, the nature of students' course (i.e. major student vs. non-major student) and the practice time available for students. Both teachers emphasised the need for L1 to enhance learning and to perform other pedagogical functions in the

classroom. Finally, they also made it clear that their beliefs seem to have stemmed from themselves rather than from any external source.

Chapter Five: Results from Phase 2 of the study

Introduction

In Chapter Four, we examined the data by which the two teachers were chosen for Phase 2 of the study. This chapter presents results from Phase 2, analysing the data quantitatively. The first section of this chapter is the report of the results from the timed analysis of L1 and L2 distribution during the teacher and student interaction in the Chinese university EFL classrooms in the corpus of lessons. The second section provides a finely-tuned analysis of teacher codeswitching utterances in terms of their distinguishing linguistic features such as codeswitching type, length, orientation and function. The results via timed analysis are presented first.

5.1 Result from timed analysis of teacher L1 use

The timed analysis employed in this study provides important evidence to address the research question detailed in Chapter Three, namely, 'What patterns of codeswitching are found in a purposive sample of teachers of English in one university in China (Research Question 1). The timed analysis refers to the analysis of classroom interaction by sampling the classroom interaction at regular intervals. In this study, lesson videos are coded into particular categories by stopping the video every five seconds to make as objective a judgement as possible as to what the teacher is doing, for example, what language s/he is speaking. In doing so, the distribution of Teacher use of L1 (TL1), Teacher use of L2 (TL2), Student use of L1 (SL1), and Student use of L2 (SL2) can be worked out respectively. (For more

details on the rationale and procedure of the analysis, refer back to 3.5.2 in Chapter Three)

Macaro (1998a) points out previous studies (e.g. Duff & Polio1990 et al) do not make it clear as to whether the TL1 is measured against the total teacher talk time or the total lesson time, as the variance between the two could be considerably large, rendering it impossible to represent the true picture of the L1 and L2 distribution in the classrooms. In the light of this, the results from both aspects are considered. However, for the sake of comparison with Macaro's study (1998a), the discussion of TL1 use in this study will be based on TL1 use in terms of lesson time.

5.1.1 The amount of Teacher L1 use

The descriptive statistics on TL1, SL1 and SL2 including mean, range and SD are presented in Table 5.1. It is worth reminding the reader that, for the sake of establishing comparisons with studies conducted by other researchers, these percentages are in proportion to the lesson time.

The reported TL1 by the two teachers is 19.4% (range=29.4; *SD*=8.9) in this study, which falls well below the 30% in studies worldwide noted by Chaudron (1988). However, the amount of TL1 use is still far higher than those identified in Macaro's (2001b) study (TL1=4.8% as a proportion of the lesson, and 6.9 % as a proportion of the teacher talk), and that of Macaro and

Mutton (2002) (5.5% as a proportion of teacher talk and 5.0% of the total lesson time).

Closer examination of the data (Table 5.1) reveals that while there is less variance between the two teachers observed in terms of their mean use of TL1, there is more across the lessons of each teacher. This inter-lesson variance of TL1 will be discussed in Chapter Eight within the context of previous literature.

Table 5.1: Percentage of Teacher use of L1 and L2 as well as student use of L1 and L2

Teacher and lesson	*Teacher talk in L1 as proportion of total lesson time (%)*	*Teacher talk in L2 as proportion of total lesson time (%)*	*Teacher talk in L1 as proportion of total teacher talk(%)*	*Teacher talk in L2 as proportion of total teacher talk(%)*	*Student talk in L1 as proportion of total lesson time (%)*	*Student talk in L2 as proportion of total lesson time (%)*	*Student talk in L1 as proportion of total student talk (%)*	*Student talk in L2 as proportion of total Student talk (%)*
C 1	26.4	50.7	34.2	65.8	5.2	8.4	38.4	61.6
C 2	15.3	59.6	20.5	79.5	0.2	23.8	0.8	99.2
C 3	8.7	74.6	10.5	89.5	0.6	2.7	17.6	82.4
C 4	32.8	53.3	38.1	61.9	8.9	8.9	28.8	71.2
C 5	24.2	57.6	29.5	70.5	1.3	13.2	9	91
C 6	9.5	62.2	13.2	86.7	0	7.7	0	100
C 7	13.1	57.8	18.5	81.5	1.9	10	1.9	98.1
C 8	7.7	70.1	9.8	90.2	0	9.8	0	100
Mean	17.2	60.7	21.8	78.2	2.3	10.6	12.1	87.9
SD	9.4	8.1	10.9	10.9	3.2	6.1	14.8	14.8
J 1	20.6	67.3	23.4	76.6	3	11.8	20.2	79.7
J 2	18.2	65.0	21.9	78.1	1.1	12.1	8	92
J 3	25.8	66.7	27.9	72.1	0	7.1	0	100
J 4	15.3	72.4	17.4	82.6	1.8	9.4	16.4	83.6
J 5	28.4	59.1	32.4	67.6	2.1	11	0.2	98.1
J 6	37.1	51.7	41.8	58.2	0	6.3	0	84.2
J 7	11.7	76.0	13.4	86.6	5.5	9.7	0.05	94.6
J 8	14.8	68.1	17.9	82.1	2.3	15.4	12.9	87.1
Mean	21.5	65.8	24.5	75.5	2.0	10.4	7.2	89.9
SD	8.5	7.6	9.2	9.2	1.8	2.9	8.4	7.4
Mean for both C&J	19.4	63.3	23.2	76.8	2.1	10.5	9.6	88.9
SD for both C&J	8.9	8.0	9.9	9.9	2.5	4.6	11.9	11.3

5.1.2 Teacher L1 use and Students talk

The reasons for establishing the link between TL1 and student's talk may be three fold. The first reason is to determine whether the TL1 will necessarily result in SL1. The second reason is to determine whether the increase in TL1 results in the reduced time for SL2. Thus, the result of this analysis provides another layer of evidence to determine the effect of codeswitching on interaction between teachers and students as well as students' opportunities for learning, which is also contributing to the issue of codeswitching and its effect on the interaction between teachers and students, a research question pursued in this study.

In order to examine the relationship between TL1 and student talk, correlation tests were conducted. As the distribution of data was not normal after a normality test was run and therefore, the non-parametric correlation test was run. The use of Kendall's tau rather than spearman was because Kendaull's tau can better measure the relationship of variables with small dataset (Field 2000).Therefore, Kendall's tau tests were run to estimate the relationship between TL1 and SL1, TL1 and SL2. The results (appendix 5) are as follows:

Results of correlations in Cindy's lessons show that a highly significant positive relationship between TL1 and SL1 was found (Tau=. 691; N=8; *p*=. 018*), while no significant positive relationship was found between TL1 and SL2. (Tau=.214; N=8; P=.458). Despite the statistical significance of the result, this finding should be interpreted with caution. It can not indicate that Cindy's L1 necessarily leads to students speaking more L1. Lesson videos revealed that as in the initial two lessons of the new term, Cindy used time

out in L1 to explain important information regarding the course structure, examinations and assignments; therefore, it may be quite natural for students sometimes to employ L1 to resolve issues efficiently with their teachers. This use of L1 by both teachers and students appear to have no bearing with the core goal of teaching and learning. In other words, when teachers switch to explain a new word in L1, students' opportunities for speaking L2 will probably not be diminished accordingly.

In John's lessons, it is interesting to note that a negative correlation between TL1 and SL1 is found and approaches significant level (Tau=-.546; N=8; p=.061). In other words, the more L1 John used the less L1 the students used. No relationship was found between TL1 and SL2. (Tau=-.429;N=8; p=.138). This, once again, suggests that the use of L1 by teachers is not relevant as an independent variable statistically to support the claim that Teacher L1 use is negatively or positively linked to students' L2 use.

Throughout the whole corpus, no significant positive correlation between TL1 and SL1 was found. (Tau=0.180; N=16; P=0.340). Equally, no correlation was found between TL1 and SL2 (Tau=-0.042; N=16; P=0.822). This implies that an increase in teachers' L1 use does not lead to an increase in students' L1 use, which may challenge those who believe that the use of codeswitching has a negative effect on the quality of the linguistic environment to which student are exposed.

However, given the argument that the use of L1 may reduce learners' time in L2, one may argue that TL1 might, in fact, contribute to the increased opportunities for students' L2 as a result of teachers' use of L1 for the purpose of elicitation. For example the teacher can easily check students' vocabulary in L2 by inserting a L1 equivalent into a structure like "what's *X* (L1) in L2?" This will be further discussed in Chapter Eight with comparison to other studies. What follows next is a detailed examination of the L1 distribution across the lessons of each of the two teachers.

5.1.3 Teacher 1: Cindy

In Cindy's lessons, TL1 use ranges from the highest 32.8 % (in terms of lesson time) in lesson 4, to the lowest (7.7%) in the final lesson. This substantial variance in the use of teacher L1 in Cindy's lessons may be attributed to the time spent on different types of activities and tasks which involve varying degrees of time out in L1. As shown from lesson videos, relatively increased use of TL1 in Cindy's lessons 1 and 2 could be explained by the fact that those two lessons were the first in the new term, in which course policies, disciplinary information on assessments and disciplines were explained.

Upon closer observation of the statistics in Table 5.1, Cindy's lessons appear to display a diminishing trend in the use of TL1 from within the pairs of lessons. In other words, the use of L1 diminishes substantially from the morning to the afternoon lesson. It is also interesting to note that, as is evident

from Table 5.1, overall, there is a diminishing trend in Cindy's use of L1 across her eight lessons (from 11.1% in the first pair to 5.4% in the final pair). This variability appears to be related to linguistic objectives and pedagogic orientations. There may be also the factor of researcher's effect. In addition, there may also be the factor of increasing ease with repeated lessons during the same day. However, this is simply a researcher inference which was not necessarily substantiated in either teacher interview or classroom observations.

5.1.4 Teacher 2: John

John's lessons 13 and 14 are the highest provider of TL1 (see Table 5.1). These two lessons shared the same teaching content but were delivered to two different learner groups. One of the possible factors contributing to such a high level of use of L1 by the teacher may be that, as this pair of lessons, entitled 'taking risks', contain abstract and philosophical content, the frequent communication breakdowns have to be rescued by the use of L1. For the remaining lessons, TL1 seems not to be evenly distributed. For example, in the lessons 15 and 16 pairing, TL1 use is rather close, while in the lessons 11 and 12 pairing, there is a considerable variance. This may suggest that the existence of factors other than lesson topics and content confounded the use of TL1.

Cindy's pattern of considerably reduced use of TL1 within two lessons on one particular day was not found in John's, as the latter's lesson pairings were spread over two days of one week. Neither was the overall downward trend in the use of TL1 in Cindy's lessons found in John's. It would appear that the use of L1 by John is more varied and lacks a possible discernible pattern as in those of Cindy.

Summary of 5.1

So far, timed analysis, though limited in many ways, does enable us to have a picture of the average ratio of L1/L2 distribution at the whole corpus level, in the present study, against the background of previous studies which employ the same analysis frameworks. In terms of timed distribution these two teachers vary little. However, the pattern of inter-lesson variance in each teacher is distinct one from the other. However, without looking at the results from the linguistic analysis in 5.2 we are far from being able to gain a fuller picture of these two teachers' codeswitching behaviours as codeswitching measure by time, is found to be quite varied. In other words, the time for delivering the same amount of content can be varied.

Though based on a modest amount of data, the result that no significant correlations between TL1 and SL1 were found at the whole corpus level provides some evidence that teachers' use of L1 does not necessarily lead to the use of L1 by students or vice versa. This confirms the results from Macaro's study (2001b:537) in that he discovered that "there was no significant correlation between teacher use of the L1 and student use of the

L1 as a proportion of the total lesson". This finding will be further pursued in Chapter Eight.

5.2 Linguistic analyses

While the results from timed analysis are important in their own right, they reveal little in terms of the whole picture of the classroom codeswitching of teachers. In 5.2, the same corpus of teachers' codeswitching data will be looked at differently from the discourse perspective. The examination of the frequency with which codeswitches bounded by L2 occurs in the corpus is believed to be able to add another perspective to the understanding of codeswitching, which is partially provided by timed analysis. While timed analysis allows us to measure the use of L1/L2 in terms of time, it cannot enable us to approach codeswitching in terms of its position in the discourse environment unless achieved through linguistic analysis. Another advantage of employing linguistic analysis is its capacity to verify and triangulate the results of timed analysis. For this reason, linguistic analysis was employed in the present study to establish the distribution of codeswitching and the length across variables such as codeswitching type, orientation and function, the results of which are presented below.

5.2.1 Quantity of codeswitching

Apart from the codeswitching distribution across teachers and their lessons, the amount of codeswitches is also calculated according to type (inter-sentential codeswitching and intra-sentential codeswitching); functional

orientation (medium-oriented codeswitching and message-oriented codeswitching); and function (for example, translation L2 to L1, information-giving, etc).

5.2.1.1 Quantity of codeswitching across teachers and lessons

The total number of codeswitching episodes identified by the L2 boundary approach in the whole corpus, according to Table 5.2, is 726 with a Mean across all 16 lessons (45.4), *SD* (21.6) and a Range (66). The distribution of frequency of codeswitching across lessons by these two teachers is also displayed in the same table. The descriptive statistics show that John's lessons have far more codeswitches than those of Cindy, as John's lessons (Mean=58.9; *SD*=9.9; Range=30) outnumber Cindy's (Mean= 31.9; SD=21.8; Range=62) almost two-fold. Therefore, even though the timed analysis shows them to be only 21% to 24%, analysis by codeswitching episodes differs enormously. This confirms Macaro (1998a)'s argument that codeswitching can be delivered quickly in speech, thus large amounts of communicative content can be expressed without wasting too much time as those exponents of L2 exclusivity have argued. Therefore, the finding provides evidence for the positive role of codeswitching in acquisition, a matter that will be returned to in Chapter Eight.

Table 5.2: Number of codeswitching bounded by L2 in the corpus lessons by two teachers

Lessons	1	2	3	4	5	6	7	8	Sub Total	Mean	*SD*	Range
Cindy	14	9	27	71	56	37	21	20	255	31.9	21.8	62
John	51	46	54	45	71	58	75	71	471	58.9	9.9	30
Total	726									45.4	21.6	66

Apart from looking at codeswitching at the corpus level, the examination of codeswitching at each teacher's level has revealed that Cindy's lessons have a wide range of variance in the numbers of codeswitches across eight lessons. Table 5.2 shows that lessons 1 and 2 contain a relatively small amount of codeswitching, despite the high percentage of L1 use in proportion to lesson time arrived at by the timed analysis. This may be accounted for by the variables already examined in the timed analysis section, i.e. the first two lessons with special focus on introducing discipline, course policy and other useful information. This will be examined further in Chapter Six.

In addition, one of the possible reasons for the highest amount of codeswitching in lessons 4 and 5 seems to pertain to the nature of activities and tasks going on in the classroom. Apart from the normal instructional activities which focus on the four skills (reading, listening, speaking and writing), these two lessons also contain substantial amounts of exam-driven exercises, required in CET band 4 and 6 exams. Furthermore, the fact that little variance exists in the percentage of teacher codeswitching in the following lesson pairings: lesson 1 and 2, lesson 4 and 5, lesson 7 and 8, may not simply be accounted for by the fact that pairs of lessons tend to have similar teaching content and activities; there may be other complex factors which come into play.

John's eight lessons, in contrast to Cindy's, do not produce the same or a similar pattern of codeswitching distribution between lessons. The

codeswitching is distributed quite evenly in pairs of lessons, with the exception of the third pairing, lessons 5 and 6.

The statistics presented here will also be interpreted and discussed later in Chapter Eight and throughout the remaining chapters, where appropriate.

5.2.1.2 Quantity of codeswitching by type (inter-sentential codeswitching and intra-sentential codeswitching)

Overall, inter-sentential codeswitching episodes are the most frequent type in the corpus (73.3% in the lessons). Within the corpus, inter-sentential codeswitching in John's lessons outnumber by more than twice those in Cindy's lessons (Table 5.3). In both John's and Cindy's lessons, variance across lessons seems substantial, as Cindy's frequency range is 39, while John's frequency range is 44. Intra-sentential codeswitching in John's lessons outnumber by nearly twice those in Cindy's.

Intra-sentential codeswitching in John's lessons outnumber by nearly twice those of Cindy. Within Cindy's lessons, variance of distribution does exist, although not substantially if the outlier in Lesson 4 is not considered. Relatively speaking, John's distribution is more balanced than Cindy's with Lesson 7 in which no intra-sentential codeswitching occurs.

Table 5.3: Distribution of inter-sentential codeswitching and intra-sentential codeswitching

	Frequency		% in lesson	
Cindy	Mean	Range	Mean	Range
Inter-sentential	170	39	71.3	42
Intra-sentential	68	30	26.9	35.6
John				
Inter-sentential	357	44	75.3	38
Intra-sentential	105	23	22.3	35.2
The whole corpus				
Inter-sentential	527	69	73.3	56.3
Intra-sentential	173	32	23.9	45.1

5.2.1.3 Quantity of codeswitching by orientation (medium-oriented codeswitching and message-oriented codeswitching)

Table 5.4 outlines the findings with respect to how different orientations of codeswitching are distributed in the corpus. As shown in Table 5.4, there are slightly more medium-oriented codeswitching than message-oriented at the whole corpus level. This finding from the present study conducted in a university EFL setting in Mainland China, differs from Macaro (1998a) 's study focusing on the secondary school context in England, which found the presence of more than twice as many message-oriented codeswitching. In the whole corpus, there are more than twice as many medium-oriented codeswitching in John's lessons as there are in Cindy's lessons. The number of message-oriented codeswitching in John's lessons is nearly twice the number present in Cindy's lessons.

Table 5.4: Distribution of medium- and message-oriented codeswitching

		Medium	Message
Cindy	Frequency	116	121
	% of lesson	Mean=45.6; Range=41.7	Mean=47.5; Range=32.1
John	Frequency	243	206
	% of lesson	Mean=51.7; Range=34.2	Mean=43.8; Range=36
Whole corpus	Frequency	359	327
	% of lesson	Mean=48.6; Range= 44	Mean=45.7; Range=37.1

5.2.1.4 Quantity of codeswitching by function

The codeswitching functions in the corpus are broadly divided into two groups, one group being medium-oriented and the other message-oriented. Examples of each type of function can be found in Chapter Six. The present section first presents findings of each type of codeswitching function in terms of its distribution in teacher groups and the whole corpus.

These functions are not evenly distributed in the corpus, as shown in Table 5.5. The top four functions in Cindy's lessons are 'Translation L2>L1' (27.5%)'Information-giving' (24.9%). 'Instruction' (18.2%) and 'Med: eliciting' (11.9%). Codeswitching with all of the remaining functions accounts for around 5 percent or less. In John's lessons, the same pattern is found, with the exception that 'Med: eliciting' ranks the third (7.2%) and 'Instruction' ranks the fourth (5.3%). Codeswitching with all of the remaining functions accounts for 3 percent or less.

Table 5.5: Distribution of codeswitching functions

Function	*Lesson*	*Cindy*	*John*	*total*
Translation L2 to L1	frequency	70	173	243
	% of lesson	27.5%	36.8%	
Translation L1>L2	frequency	9	11	20
	% of lesson	3.5%	2.3%	
Teacher echo in L1	frequency	3	4	7
	% of lesson	1.2%	.9%	
MED: eliciting	frequency	30	41	71
	% of lesson	11.8%	8.7%	
Information-giving	frequency	63	153	216
	% of lesson	24.7%	32.6%	
Instruction	frequency	46	28	74
	% of lesson	18.0%	6.0%	
Reprimand	frequency	1	3	4
	% of lesson	.4%	.6%	
MES: eliciting & repairing	frequency	7	23	30
	% of lesson	2.7%	4.9%	
Multiple function 1: medium	frequency	8	10	18
	% of lesson	3.1%	2.1%	
Multiple function 2: message	frequency	5	3	8
	% of lesson	2.0%	.6%	
Multiple function 3: medium & message	Frequency	13	21	34
	% of lesson	5.1%	4.5%	
Total		255	470	

In general, codeswitching functions are not evenly distributed, and this considerable variance is evident in both teachers. There is discernible a somewhat similar pattern with respect to the distribution of these functions if we compare the two teachers. In Chapter Six an in-depth qualitative examination of each function is presented and illustrated.

5.2.2 The length of codeswitching

Interest in the study of the length of codeswitching is related to both teachers and learners. The assumption for gauging the length of codeswitching for teachers may be related to the quality of their input in L2 classrooms. In other

words, it is possible that the longer the codeswitch teachers utter the less exposure time of L2 there is available for students. In addition, the longer the L1, the more difficult it is for the teacher to return to L2 discourse. The issue for students may relate to their input processing mechanism. In other words, codeswitching with varying lengths tends to be processed differently and may require different degrees of cognitive attention in processing teachers' input. In the present study, the length of codeswitch is measured in terms of the number of L1 Chinese characters contained in the codeswitching segment bounded by L2. This will be illustrated in Example 101 below:

Example 101

Cindy is explaining how she will allocate an extra bonus score to those who study hard as part of the students' formative assessment.

… in that case I will give you an extra score, I will give you extra points. This extra score is no more than 5 points, no more than 5 points 不超过5分对不对？ [tr: no more than five points, right?]. So, I will give this score to those who regularly email me their essays…

The length of codeswitch is 8 Chinese characters as *"不超过5分对不对"* *has* 8 Chinese characters, i.e. *不[no]，超[exceed]，过[over]，5[5],分[point]，对[right]，不[no]，对[right]，* The counting does not include the punctuation.

In the next section, the descriptive statistics pertaining to the mean length of codeswitching across teacher groups and lessons will be examined and presented.

5.2.2.1 Mean length of codeswitching across teacher groups and lessons

Table 5.6 shows that the mean length of codeswitching for the whole corpus is 23.9 (*SD*=58.6; Range=286.3). The shortest codeswitch is a mere one or two Chinese characters long, while the longest is 983. Within Cindy's lessons a considerable range of variance can be found. In other words, the mean length of codeswitching is not evenly distributed across lessons, ranging from the highest at 121.1(Lesson 1) to the lowest at 14.2(Lesson 6).

Such a wide range in the mean length of codeswitching may be partly due to the fact that the mean length of codeswitching in Cindy's first two lessons is significantly higher than those in the remainder of the lessons, as evident from the lesson observation data, demonstrating that Cindy speaks at length at the beginning of the term on course information, discipline and learning strategies.

Table 5.6: Mean length of codeswitching in two teacher groups and their lessons

	For Cindy								
Lesson	1	2	3	4	5	6	7	8	Overall
Mean	121.1	120.8	18.1	24.7	29.5	14.2	31	15.5	32.1
SD	265.3	295.8	15.8	25.6	39.3	21.9	67	18.7	90.5
	For John								
Lesson	1	2	3	4	5	6	7	8	Overall
Mean	21.8	16.7	17.2	18.7	20.8	34.3	13.8	14.2	19.5
SD	35	16	16.2	38.8	38.9	38.4	11.6	9.5	28.7
For the whole corpus	Mean=23.9; *SD*=58.6								

Note: when the two outliers from Cindy's first two lessons were removed the average mean for Cindy's lessons is 22.2 (Range=16.8; *SD*=31.4)

However, this is simply not the case with John's lessons, as they have much lower across-lesson variance. As illustrated further in Table 5.6, the range between the highest and lowest in the mean length of codeswitching is as small as 20.5 Chinese characters long (Average mean =19.5; *SD*=28.7).

Comparison of the statistics on these two teacher groups reveals that the mean length of codeswitching from Cindy's lessons is substantially longer than John's. However, this result is arrived at without excluding the factor of outliers. If the two outliers from Cindy's first two lessons are removed, the mean length of codeswitching for Cindy's lessons is 22.2 (Range=16.8, *SD* =31.4). This new figure from Cindy's lessons would suggest that even though statistics such as the average mean, SD and range in Cindy's mean length of codeswitching are still higher than those of John, they are not as significant as when the outliers are considered.

5.2.2.2 Mean length of codeswitching by codeswitching type (inter-sentential codeswitching and intra-sentential codeswitching)

Drawing upon the above results, it is not at all surprising that inter-sentential codeswitching is much longer than intra-sentential codeswitching. Across-teacher comparison reveals that the length of inter-sentential codeswitching for these two teachers is a little closer; however, in terms of the length of intra-sentential codeswitching, Cindy's average is more than twice that of John.

Table 5.7: Mean Length of codeswitching in Chinese characters by codeswitching type

	Cindy			John			Whole corpus		
Codeswitching Type & orientation	Mean	*SD*	Range	Mean	*SD*	Range	Mean	*SD*	Range
Inter-sentential	37.9	109	163	31.8	24.8	163	27.6	67.4	166
Intra-sentential	16.5	22.5	22.2	7.8	8.5	10.7	11.2	16.1	24.9

Note: in Cindy's message-oriented codeswitching, two outliers were removed from the calculation

5.2.2.3 Mean length of codeswitching by codeswitching orientation (medium-oriented codeswitching and message-oriented codeswitching)

With respect to the length of codeswitching orientations, at the whole corpus level, the medium-oriented codeswitching (Mean=11.3; *SD*=9.7; Range=14.8), are found to be far shorter than the message-oriented codeswitching [Mean=28.2; *SD*=36.8; Range=32 (without outliers)] in terms of mean length. Furthermore, they vary little in comparison to message-oriented codeswitching. This finding may provide evidence that medium-oriented codeswitching does not take long to deliver, supporting the argument for the optimality of teacher's codeswitching with regard to the effect of the quality of the linguistic environment, already considered in Section 5.1. This evidence will be further examined together with other layers of evidence in the discussion section of Chapter Eight.

Table 5.8: Mean Length of codeswitching in Chinese characters by orientation

	Cindy			John			Whole corpus		
Codeswitching Type & orientation	Mean	*SD*	Range	Mean	*SD*	Range	Mean	*SD*	Range
Medium - oriented	12.7	11	14.8	10.1	8.9	6.6	11.3	9.7	14.8
Message - oriented	30.1	41.7	27.7	26.3	31.8	30.9	28.2	36.8	32

Note: in Cindy's message-oriented codeswitching, two outliers were removed from calculations

5.2.2.4 Mean length of codeswitching by codeswitching function

With respect to the length of the functions, Table 5.9 illustrates that with regard to certain functions such as Medium-eliciting, Information-giving and Instruction, the two teachers vary considerably in their mean length, whereas in other functions such as Translation L2 to L1, Translation L1 to L2, and Teacher echo in L1, they vary only little. The variability in terms of the mean length for most functions in Cindy's lessons appears higher than that in John's lessons

Table 5.9: Mean length of codeswitching in Chinese characters by function

	Cindy			*John*			*The whole corpus*		
Codeswitching Function	*Mean*	*SD*	*Range*	*Mean*	*SD*	*Range*	*Mean*	*SD*	*Range*
Translation L2 to L1	10.2	9.5	10.3	11.1	7.8	4.4	10.8	8.3	10.3
Translation L1 to L2	14.6	9.6	1.3	14.1	9.2	13	14.3	9.1	13
Teacher echo in L1	4.7	1.2	2	3.5	1.9	0.5	4	1.6	2
MED: eliciting	21.5	24.5	16.7	6.8	6.3	11.3	13	18	24.5
Information - giving	71.4	172.2	298	31.1	38.5	48.7	42.8	99.7	298
Instruction	24.9	33	27	14.8	12.7	12.2	20.9	27.2	31.3
MES: eliciting and repairing	10.8	5.4	6	13.5	10.7	7.1	12.8	9.6	7.6
Reprimand	11	0	0	13.3	7.6	0	13.3	7.6	0

Summary of 5.2

In this section we have focused in particular on presenting the results of linguistic analysis in terms of its numeric distribution as well as its length. There is quite a considerable amount of codeswitching at the whole corpus

level, with the two teachers varying considerably. Cindy and John vary significantly in number despite not varying much in terms of the results of the timed analysis in 5.1. We have also identified that there are far more inter-sentential codeswitching in the corpus. John makes both more intra-sentential and inter-sentential code-switches than Cindy. Furthermore, medium-oriented codeswitching and message-oriented codeswitching at the whole corpus level are close in quantity. John makes nearly twice as many codeswitching as Cindy in terms of both medium-oriented and message-oriented codeswitching. We have also identified that functions of codeswitching are not distributed evenly. In terms of the length, message-oriented codeswitching were found to be much longer than medium-oriented codeswitching. The length for certain medium functions such as Translation L2 to L1, Translation L1 to L2, teacher echo in L1 do not vary with two teachers, while functions such as medium: eliciting, Information giving and instruction vary greatly.

Chapter Summary

So far, we have looked at the data from two perspectives: both timed analysis and linguistic analysis. Some initial evidence has emerged, and is summarised below.

Evidence provided by the timed analysis enables us to look closely at how the two languages L1 and L2 are alternated within a fixed time-frame. This offers insights into the distribution of classroom time, which is often taken by some

researchers as the yardstick to measure the quality of the linguistic environment in classrooms. The lower proportion of L1 and L2 use produced by the timed analysis in this study is probably due to the fact that L1 communicative content can be delivered in a rather short time. Furthermore, the finding that L1 use by teachers does not correlate with students' L1/L2 use offers some initial evidence to disconfirm the popular belief that more L1 use will encroach upon exposure time for students and will thus be detrimental to L2 acquisition.

The timed analysis result does not show that Cindy and John vary much in terms of the timed distribution of their L1 use; however, such proximity does not exist in the finding unveiled by linguistic analysis. In that context, it has been found that there are quite a considerable number of codeswitching at the whole corpus level, with the two teachers varying considerably. Within each teacher group, Cindy's codeswitching distribution across lessons is less even than John's. With respect to the mean length of codeswitching, message-oriented codeswitching was found to be much longer than medium-oriented codeswitching, an important finding which has implications for the argument that the use of L1 by teachers does not have an adverse effect on students' talk. The employment of short bursts of codeswitching for medium purposes may contribute to learning, an important theme which will be expanded upon in Chapters Six, Seven and Eight.

Chapter Six: Codeswitching Findings from Functional Analysis

Introduction

In Chapter Five, a quantitative analysis was made of the data from lesson videos of the corpus of 16 lessons given by two teachers in terms of the timed distribution of teachers' use of L1 and L2 in university EFL classrooms, as well as the linguistic distribution of teachers' codeswitching and its length. The timed distribution analysis offered readers insight into the temporal aspect of university language teachers' language choice, while the linguistic analysis presented a contrasting look at how codeswitching is distributed in the discoursal context at the speech interaction level. Both analyses answered the research question about 'patterns' of codeswitching and also served as a backdrop to the analysis in the present chapter.

In this chapter, the focus is shifted from quantitative analysis of the codeswitching behaviours to a more qualitative understanding of the discourse in which codeswitching occurs with regard to its functional categories. In other words, this analysis sought to answer why codeswitching are occurring, a sub research question: What is the functional distribution of their L1 and L2 use? under *Research Question One: What patterns of codeswitching are found in a purposive sample of teachers of EFL in two universities in China?* The significance of the pursuit of this answer, together with the evidence provided in other results chapters, will lay the foundation for the discussion in Chapter Eight and conclusions in Chapter Nine.

Macaro (1998a)'s function model of codeswitching provides the framework for analysis in this chapter. The details of the model were already provided in 2.1.6 in Chapter Two. One point worth adding here is Macaro's model fits snugly into the present study. Driven by the need to ground the data in the present study, only two subcategories were added to the model: 'grammar teaching' sub-category of the medium-oriented categories of the model and 'focus on rapport' of the message-oriented categories of the model. In the following sections, each of the functions will be examined in detail.

6.1 Medium-oriented codeswitching

6.1.1 Translation L2 to L1

Translation L2 to L1 is the function of a type of codeswitching in which there is always the L1 equivalent present following an L2 phrase or word. It is the most frequent functional category of codeswitching found in the corpus of lessons (see Table 5.5 in Chapter Five). Closer examination of the discourse context in which codeswitching occurs has led to the observation that codeswitching with the function of Translation L2 to L1 are most often coupled with a range of input modifications, which is typical of teacher's speech in the L2 classroom. The detailed variations of teachers' input modifications combined with codeswitching within L2 boundary is provided below.

1. *Codeswitch immediately after the target term or utterance*

- Isolated Codeswitching
- Codeswitch; Eliciting in L2

2. *Codeswitch after the 'Repeat' option of the target term or utterance*

- Repeat; Codeswitch
- Repeat; Codeswitch; Repeat
- Repeat; Codeswitch; Paraphrase
- Repeat; Codeswitch; Written form in L2 provided

3. *Codeswitch after the 'Paraphrase' option of the target term or utterance*

- Paraphrase; Codeswitch
- Paraphrase; Codeswitch; Paraphrase
- Paraphrase; Codeswitch; Providing meta-linguistic information in L2
- Paraphrase; Codeswitch; Repeat; Paraphrase

4. *Codeswitch after the 'Eliciting in L2' of the target term or utterance*

- Eliciting in L2; Codeswitch; Repeat
- Eliciting in L2; Codeswitch; Written form in L2 provided
- Eliciting in L2; Codeswitch; Highlight L2

It is these variations, each illustrated in turn that provide the framework for the analysis in this section (6.1.1).

6.1.1.1 Codeswitch after the target term

In this category, there are no other input modifications such as repeat, paraphrase etc between the target term and the codeswitch. Below are two examples which fit the pattern. Example 407 is an instance of 'Isolated Codeswitching'. In other words, Codeswitching immediately follows the target terms or utterances and, at the end of codeswitch (bounded by L2), there is a return to the original discourse, the matrix language.

Example 407

Cindy is helping the class to tackle some less frequent and ambiguous vocabulary on the reading extracts:

---

1 ....OK, in Paragraph Four you may find that your values, your prejudices
2 are challenged. Values here means, in Chinese, means 价值观，价值观.
3 [tr: a person's principles and standards of behaviour, a person's principles
4 and standards of behaviour], Ok, paragraph twenty,...

In this instance, the target term 'value' first appears in Line 1 in plural forms followed immediately by 'prejudices', which is not a synonym. However, students might think that 'prejudice' and 'values' may mean roughly the same

thing, if Cindy did not define the term in Line 2 by employing an intra-sentential codeswitching, in which the L1 equivalent of 'value' is provided and repeated. In light of The TESLK data (see appendix 7), we learn that Cindy did not believe that this word 'values' was known to the students, therefore, one may claim with reasonable confidence that this codeswitching was pre-planned and involves a certain degree of conscious decision making on the part of the teacher. We will also look at what strategic reactions from the respondents in reaction to this codeswitching in Chapter Seven.

This type of Isolated codeswitching is rare in the corpus. On the contrary, there are those codeswitching, unlike 'Isolated codeswitching', which still precede and continue with other possible input modifications of the target terms and utterances. Example 1010 is one of the many examples.

Example 1010

This codeswitching episode is situated in short focus on form--a side sequence of John's exchange of ideas with his students on the topic of a philosophical reading titled 'individuals and masses'. After John and his students have discussed the characteristics of people in a crowd, he utters:

---

1 …Assemble in the crowd. Assemble means 聚集[tr: assemble],

2 give me another word for assemble…

In this example, the codeswitch is closely followed by an 'elicit' in L2 for a possible synonym of the target term 'assemble' in Line 2. Lesson observation shows that John frequently employs this technique of 'web of

words' to expose his students to more lexical items. Quite often the structure 'Give me another word for *X* (a L1 word)' is also employed to test students' vocabulary knowledge which is otherwise perhaps difficult and time-consuming using other speech adjustment devices. This will be further taken up in 6.2.

6.1.1.2 Codeswitch after the 'Repeat' option of the target term

To begin this section, two examples will be looked at first.

Example 302

Cindy is providing a new phrase for one student to use in her presentation.

---

1 …You may say, if you don't have a favourite food, I like all kinds of

2 food. I'm not particular about food, right, I'm not particular about food,

3 我不挑食 [tr: I'm not particular about food]. Ok, I like everything…

Unlike the data in 6.1.1.1, Example 302 is an instance of codeswitching in which the target words or utterances are repeated in Line 2 before the appearance of codeswitching. If the intention on the part of the teacher is both to communicate the meaning of an idiomatic phrase such as 'I'm not particular about food' and for the students to learn the phrase for future productive use, then the additional time given to the item via the repetition might, in the mind of the teacher, be effective. In other words, what we are dealing with in these L2-L1 translations is a kind of cumulative impact of 'time on micro-task' (the students' brief task of dealing with an unfamiliar

item) and 'salience'(the amount of spotlight afforded by the teacher to the target element). These two features surrounding the codeswitch may then be counterbalanced, in the mind of the teacher, by two things: evidence of student understanding; a potential desire to maintain target language communication and flow of communication itself.

Further examples are considered below:

Example 206

Cindy is talking about learning strategies:

---

1 …Anyway, you're supposed to take part in many extra-curricular
2 activities, extra-curricular activities. Extra-curricular, 课外的[tr: extra-
3 curricular], extra-curricular activities. Sometimes they are related to
4 English…

Example 1034

After a male student finishes reading aloud the passage, John utters:

---

1 …Right, you know these three paragraphs constitute, constitute构成[tr:
2 constitute]make up part two…So, what is the main idea expressed in
3 these three paragraphs?...

Example 1360

John is highlighting a less frequent word when he is making a point.

---

1 Even each individual is a pollutant, pollutant, 污染体啊 [tr: pollutant],

2 (John writes it on the board), Yes, pollutant…

The above three short codeswitches share a common attribute, i.e. the L2 target terms are all repeated before the codeswitch. However, they are slightly different in terms of the follow-up input modification options after the codeswitch. In both 206 and 1034, the sequence of discourse is similar in that, in the beginning, a switch from message to medium takes place, then the provision of a repetition, the provision of L1 equivalent, repetition and then switching back to the message. However, in 206, the codeswitch is followed by a repetition of the target word, while in 1034, the codeswitch is followed by a paraphrase. It is perhaps tempting to assume that the pattern of 206 possibly reflects Cindy's emphasis on the pronunciation of the word 'extra-curricular', as repetition of the pronunciation of the target word may aid the processing, memorisation and retrieval of a word. In 1034, the paraphrasing of the term 'constitute' could reflect emphasis upon the meaning of the word as this is a less frequent lexical item.

6.1.1.3 Codeswitch after the 'Paraphrase' option of the target term

In this category, all instances of codeswitching are preceded by a paraphrase. Example 603 is looked at first.

Example 603

Cindy is explaining the difference between 'career' and 'job' which is sometimes confusing:

1 C: ...In Paragraph One, one new word is career, so you should know that
2 a career means a job or a profession that one is trained in and intended to
3 have for a long time. So, a career is different from a job. Ok? You have
4 to engage in a career for a long time. They say now in China, there are
5 more and more career women than before.
6 S: 职业女性， [tr: career women],
7 C: Ok, very good. So, career women are like the opposite of housewives,
8 right? So, career women are like the opposite of housewives, right, 职业
9 女性，职业女性[tr: career women, career women]. Career means 事业
10 或职业[tr: occupation or profession] ok, 事业或职业[occupation or
11 profession]; And the next phrase is…

In Example 603, Cindy's central goal is to provide the meaning of 'career' which is often confusing from the word 'job' that students are already familiar with. She attempts this by uttering a lengthy L2 paraphrase of the word and also provides a contextual phrase 'career woman', the meaning of which is immediately picked up by one student and he instantly provides a L1 equivalent for the phrase 'career woman'. This student-initiated codeswitch is received with praise from Cindy in line 7. Interestingly, Cindy goes on to provide the paraphrase for the collocation before the repeat of that student's self-initiated codeswitch and finally provided a translation of 'career' in Line 9 and 10, despite it having been explained explicitly previously by a paraphrase.

Unlike the previous codeswitching examples focusing on lexical meanings, in example 603 there appears a preference of a paraphrase of the target word from Cindy over the codeswitch when it comes to her decision making of codeswitching. However, for some reasons, codeswitching is still provided at the very end of transaction. This pattern may be related to the word 'career' itself. TESLK data from Cindy indicates that Cindy thought the word may have already been grasped by students before the course. Whether this knowledge of students' vocabulary ability is related to her codeswitching behaviour in this case it is still unknown. However, it may be interesting for one to hypothesise that the more infrequent a word appears the more likely it may be explained by a single codeswitch or input modification sequences which contain codeswitches.

Further examples follow.

Example 602

One of Cindy's students is asking about the meaning of the word 'via' which occurs in the text.

---

1 S: What does 'via'mean?

2 (Cindy spells the word) v-i-a, v-i-a, via means through, in Chinese,通过

3 [tr: through], via means by way of, by way of, (Cindy writes 'via' on the

4 board)… v-i-a. Any other questions?...

Example 712

This codeswitch occurs in the middle of an activity exclusively focusing on the teaching of a number of phrases:

---

1 …Another phrase you need to pay attention to is, thanks to. Thanks to
2 means because of, due to good reasons, positive reasons, you know, in
3 Chinese, 幸亏 [tr: thanks to]. Ok, so if you have some negative reasons,
4 you should not use 'thanks to'…

Example 715

Cindy and her students are exchanging ideas as to how to prepare for job interviews properly. Cindy is initiating the discussion by reading aloud the text:

---

1 … So, the first paragraph said, ok, (inaudible) whether for a college or for
2 a job, most people face this ordeal (referring to an interview). Ordeal
3 means a hard task, or a big problem, ok? Ordeal, 严峻的考验或者是何种
4 麻烦[tr: a serious challenge or trouble], (she resumes reading aloud the
5 text) However, people who prepare for interview…

Example 804

Cindy is talking about someone's disappointing work experience in an investment bank:

…Soured means变酸了[tr: become sour], here means failed, did badly…

Example 926

John is writing the 'desert' on the blackboard and changes it to 'dessert':

1 J:...You girls should know this, dessert, the last course,

2 S:课程[tr: a course for study]

3 J: No, the last course 最后一道菜[tr: the last course]，so this is dessert...

What is particularly interesting about this set of examples is that they are all centred around words or short phrases in English. These words and phrases can be semantically complex and figurative. For example: 'via', 'thanks to', 'ordeal', 'soured' and 'dessert'. In each of the codeswitching episodes (except 926) in which these words are embedded, the English word 'means' triggers the codeswitch. In previous codeswitching episodes we can see that this was not the case, the teacher merely provided the equivalent. Thus in these examples, not only is a direct equivalent being provided, but the teacher is drawing the attention of the students that this is what the word *means* in Chinese.

However, because all these words are either abstractions or collocations, they are not all provided by direct L1 equivalents apart from example 602 and 712. For example in 715, 'ordeal' is not given a Chinese equivalent of, say, two or three characters, but two exemplifications (challenge/problem) involving 12 characters, which , in any case, would not be candidates for definitions in English. The New Oxford Dictionary offers: 'painful or horrific experience, especially a protracted one'. This is the only case in the corpus of data that Cindy provides a slightly less accurate translation of the target term as she

might focus on the source of the 'ordeal' rather than the actual experience of the 'ordeal'.

Example 926 is an interesting case in that the paraphrase 'the last course' for the target word 'dessert' fails to provide a clear meaning. This results in one student's misunderstanding in Line 2. In the end John has to make an explicit negative error correction followed by an explanation in L1. Empirically little is known about which is more effective in terms of helping learners to acquire L2 lexical item, the provision of L1 equivalent or a paraphrase in L2. However, this codeswitching example may, though limited, offer some insight into the issue.

6.1.1.4 Codeswitch after the 'elicit in L2' of the target term

Example 1437

John is explaining an expression 'adapted with' in one reading activity:

---

1 …Another expression is cars adapted with driver safety features, adapted
2 with, meaning? …这样的汽车配有什么?... 什么安全系**统**装置? [tr: this
3 car is adapted with what? What safety system devices?], so, the
4 expression is adapted with, adapted with, so can you give us an example
5 of what driver safety features the cars are adapted with…?

Example 1437 is an interesting and complex example of codeswitching. After John utters the sentence that contains the target phrase 'adapted with' in Line

1, he asks a display question for the meaning of the phrase 'adapted with' in Line 1 and 2 expecting students to respond in either L1 or L2. Probably as a result of the students' lack of response, John makes a switch to Chinese in Line 2. However, this codeswitch is not a direct L1 translation like the majority of examples. It is a question in L1 asking what the car is adapted with. The translation of 'adapted with' is imbedded seamlessly in it. The answer to this question was in the previous utterance in Line 1.

This is perhaps an excellent example of using codeswitching to indirectly hint at the meaning of a rather difficult collocation such as 'adapted with' which is otherwise impossible in L2. After the codeswitch, he then draws the interlocutors' attention back to the target phrase 'adapted with' in Line 3. He repeats the target phrase twice and shifts to another plane of discourse, by raising an open question that involves considerable student contribution in L2 to the discussion. This example is perhaps the most highly skilful use of codeswitching seen throughout the entire corpus of lessons. The codeswitching functions as an implicit resource for the construction of the meaning between teachers and students. Moreover, as we shall see the feedback on this episode from the two student respondents concerned is positive.

Two more examples of codeswitching fit this pattern:

Example 319

Cindy and her students are talking about world famous universities and she is talking about the mission of Princeton University:

---

1 C:…and this morning (Cindy's morning lesson), one student presented
2 Princeton University, Princeton University's motto, you know what a
3 motto is?校训啊?[tr: school's motto], motto, (Cindy writes the word
4 'motto' on the board) also, the motto of Princeton is…

Example 1566

John is making a comment on one quote from the text 'The road from realisation of the fact that his Dad had lied to him to acceptance of this fact is a lot longer than he thought' he continues:

---

1 …So, that is why sometimes love and hatred are just one step aside. You
2 understand that, right? 爱和恨怎么样?只有一步之遥[tr: love and hatred
3 are sometimes what? Just one step aside]. We say love and hatred are just
4 one step aside. Love and hatred are just one step, step? …Aside?... Aside
5 means apart (write 'aside' on the board.) …

In both Example 319 and 1566, codeswitches precedes an elicit in L2 such as "*you know what a motto is?"* or *"You understand that, right?"* The provision of these sequences in L2 in the middle of the target terms/ utterances and the codeswitch may reflect teachers' complex decision making. On the one hand, these options pave the way for the codeswitching as they draw learners' attention closer to a possible codeswitch without sounding too sudden or abrupt. On the other hand, these options may involve learners to actively

engage in the process of working out their hypothesis before the codeswitch confirms that. The strategic reactions by the learners reacting to this codeswitch and other codeswitching examples will be looked at in Chapter Seven.

Some further examples in this category are:

Example 402

Cindy is explaining a word from the talk made by the President from Yale University:

---

1 ….So, here 'pluralistic' actually means multi-cultural, multi-cultural. Do
2 you know this word 'multi', right? (She writes 'multi' on the board and
3 turns to face students again, saying:) 'multi' means, means 多的[tr: many].
4 right?...

Example 1519

John and his students are reading and discussing a reading text titled 'Growing up is a hard thing to do':

---

1 …And he was my Dad and in my eyes he was my role model (John
2 finishes reading from the text). So, he respected him, he loved him and he
3 even admired his Dad. In a word, his Dad was his hero. His Dad was his
4 role model (He is looking around for a few seconds), role model? (John
5 writes 'role model' on the board), His Dad was his role model, 榜样 [tr:
6 role model]. So, we often say the parents are the first teachers of their
7 children in childhood…

Example 402 and 1519 share a common pattern of 'providing a written from in L2, repeat and codeswitch' in the use of input modifications to explain the meaning for the target terms.

Example 1519 is an interesting case of presenting the target collocation phrase. It seems that the codeswitch here is likely to be motivated by the teacher's desire to teach the word fully. After John's reading loud of the target text, he stops at the moment of uttering the sentence in which the target term 'role model' is contained in Line 3 and scans the classroom for a few seconds expecting answers from students. Upon realising that his elicitation has failed, he immediately highlights the target term, by repeating it in a rising intonation in Line 4, then he provides a written form of the term on the blackboard, and repeats the target sentence again, before providing a two character long exact L1 equivalent for the target term in Line 5. It is highly likely that the codeswitch here is motivated by students' lack of comprehension.

In sum, codeswitching in these two examples is rather short and both manifest the unique feature of a delayed codeswitching option, which may reflect teachers' intention of doing so for the benefit of learners.

6.1.1.6 Summary of 6.1.1

In the above section we have examined in detail the possible variation of teachers' input modifications juxtaposed with the codeswitch to present the target vocabulary or utterances. We have arrived at these patterns only by categorising those input modifications between the bringing-up of target terms or utterances and the codeswitch. We have also examined those interesting input modifications following the codeswitch in each possible example. These variations only serve for the convenience of analysis and they are by no means exhaustive. On the basis of that, a number of options teachers can adopt to assist learners' processing of the target terms or utterances may include:

- The amount of time given to items. This is done by repetitions.
- The amount of information surrounding items. This is done by giving paraphrases as well as codeswitching.
- The amount of salience given to an item. This is done by discourse markers such as "this means" and by writing the items on the board.

All above features may have implications as to how learners react or process the input. Advantages and disadvantages for some pattern of combination of the above do seem to emerge as we begin to link them with the evidence from the learners' reactions in Chapter Seven.

6.1.2 Translation L1 to L2

Contrary to the function of Translation L2 to L1 in 6.1.1, translation L1 to L2 is the function of a codeswitch in which a L2 equivalent is provided for a L1 word or an utterance. Translation L1 to L2 are less frequent, with only 19 instances occurring in the corpus. Here are some examples.

Example 1101

John is talking about the hierarchical structure of society in China:

---

1 …So, you know Chinese culture, first, we talk about the nation, as a
2 whole, right? Then we talk about 集体 [tr: collective], collective, (Some
3 students read aloud the word 'collective' spontaneously), then we talk
4 about individuals, right?

This short intra-sentential lexical codeswitching here is the opposite of translation L2 to L1 and share similar discourse functions with translation L2 to L1, for you can simply change the word order of '集体' and 'collective' and it does not cause much confusion. Indeed John could have spoken the L2 first and then provided a L1 equivalent. However, the reason for not doing so is difficult to infer. Maybe it is a bit adventurous to assume that it seems natural for John to translate back into English partly to maintain the feel of a L2 classroom. It is also interesting to hypothesise that, as the L1 word 'collective' has a special connotation which reminds people of China's historical and political past under the rule of the communists' regime, it is actually a technique that he deliberately employs to activate students' world knowledge so as to engage them better in the interaction and construction of

new meanings. Alternatively, it is possible that he simply wishes to give students the opportunity to check their vocabulary.

Similarly, this might be regarded as an example of employing an L1 technique to increase students' L2 use, elicit for L2 equivalence and provide opportunities for L2 practice (a theme touched upon in Chapter Five and which will be discussed again in Chapter Eight), as also evident in other examples (see example 508, 1619 below). However, which comes first, L1 or L2, the different sequence may trigger different reactions from input processing on the part of learners, i.e. to process L1 first or L2 may have implications for the cognitive processes of the learners.

It may also be interesting to note that this function of Translation L1 to L2 can easily be confused with the function of information giving. Information giving is not followed by a translation. However, Translation L1 to L2 does (See Example 1301).

Some more examples follow:

Example 508

Cindy is demonstrating to the class how to use the phrase 'within one's reach':

1 … Ok, 那么这件事情我办不了，这个不在我力所能及的范围之内，

2 可以说 [tr: well, I can't help you on that as it is not within my reach]…It

3 is not within my reach, ok? I cannot help you because for this job it

4 simply is not within my reach…

Example 1301

John is showing the class how to say '1600';

---

1 …You have two ways of saying this number. You can say one thousand
2 and six hundred and also you can say sixteen hundred, but the more
3 efficient way would be sixteen hundred, 这种表达真是精细节约的方式
4 [tr: this expression is both accurate and economical], It saves your time
5 and energy…

Example 1410

John is making a side sequence, encouraging students to think about how to tap into their potential by taking up challenges:

---

1 …To take up challenges means to challenge yourself. 这也是一种本
2 能啊，是不是啊？ [tr: this is also a kind of instinct, isn't it?], You know
3 this is part of human nature.

Example 1619

John is employing an L1 technique to engage his students in oral practice:

---

1 J: …So, now please leave your book alone, how do you say '当我爸爸妈
2 妈结婚的时候他们呢很年轻，很有理想[tr: when my Dad and Mom
3 were young they were idealistic]…How do you say that? …Do not read
4 from the book, to make sentences. How do you say that?
5 SS: when my Dad and Mom were young they were idealistic…

Different from 1101 earlier, examples 508 and 1619 are elicits at the sentence level. The only difference between these two is, in 508, the L2 element following the L1 is provided by Cindy alone which serves as input. However in 1619, the L2 for the L1 sentence is spoken in chorus by the whole class together with John as a kind of oral practice. Both appear to be planned codeswitches which focus on the medium rather than message.

The common feature shared by Examples 1301 and 1410 is that both codeswitches contain meta-linguistic comments about the previous utterance and the codeswitch is provided translations in L2. In 1301, the learners' attentions are drawn to the medium of the previous utterance while in 1410, the codeswitch directs the class to the meaning aspect of the previous utterance. In 1301, John first makes some meta-linguistic comments in his codeswitch in Line 3 and provides an L2 version of what he is uttering in Line 4, the advantage of this being that it ensures the successful communication of the message. In addition, the provision of an L2 equivalent maintains the L2 feel in the classroom as discussed earlier. Furthermore, it is possible that this provides students with the opportunity to check the accuracy of their mental translation, which may also be the case in 1410.

Readers may be reminded again here that these examples are quite close to Information giving codeswitching in that meta-linguistic information is also provided (see section 6.3.1). However, the information provided is different. The former is about language and the latter is about events. In addition, given

the time constraint, this provision of L2 may, arguably, have more advantages than an Information giving codeswitching which does not have a translation in L2. This may also bring up a valid question of investigating the difference of the extent of ease to return to the L2 discourse after the codeswitching. To explore this issue further would reach beyond the scope of this thesis.

6.1.3 Teacher Echo in L1

Teacher echo in L1 refers to teachers' echoing or repeating a student response in L1, of which there are only 3 instances in the data, as detailed below. This is very few compared with the 9 instances in Macaro's study (1998a). All three instances below demonstrate the IRF pattern of discourse structure.

Example 507

Cindy is explaining to the class some lexical items which appear in the text:

---

1 C: …I'm engaged these days. I'm very busy. If I say somebody is

2 engaged.

3 S :(A student interrupts Cindy's speech and utters) 订婚了[tr: engaged]

4 C: Yes. 订婚了[tr: engaged]…before their marriage. Ok…

It is interesting to note that in Example 507, the occurrence of a teacher's echo in L1 is actually as a result of one student-initiated move to offer a response to the target term in Cindy's adjacent utterance. It may be assumed that Cindy is about to provide a L1 equivalent for 'engaged'. However, this codeswitch, which is meant to be hers, is spoken out by one student. It is also

interesting to observe that the "If I say somebody is 'engaged'" in Line 1 and that proactive student's voluntary answer in L1,--"订婚了[engaged]" can be taken as one codeswitch with the function of translation L2 to L1 and, this codeswitching, rarely in the corpus, is co-constructed by Cindy and the student across two turns.

Here are some more codeswitching examples of Teacher Echo in L1.

Example 915

1 J:..(John was reading aloud from the text). So, clashes with authorities
2 are reported almost daily in the press. So, here we have a word 'clash',
3 meaning?
4 S: 冲突[tr: clash]
5 J: 冲突[clash]，Do you have some other (English) words for 冲突
6 [clash]?

Example 1435

1 J:…Pay attention to these expressions. And also in Line Four, we have
2 'mechanical failure'. What does it mean? Mechanical failure?
3 S:机械事故[tr: mechanical failure]
4 T:机械事故[tr: mechanical failure]， Yes, you know, one additional
5 thing...

All the above codeswitches are teachers' echoes of students' responses to their elicitation at either word or collocation level. Unlike Example 507, responses from the students in these two cases are expected by teachers.

6.1.4 Correcting the L1

There are 2 instances of corrections in L1 in the corpus of the present study.

Example 320

After Cindy talks about the motto of Princeton University, she starts introducing some less frequent words:

1 C:…I want to introduce some difficult words to you. The first one is
2 'rigorous', rigorous,
3 S: 有活力的[tr: vigorous]
4 C: 有活力的吗?[tr: vigorous]? (smiles) 'rigorous', not 'vigorous',
5 You must be confused about these two words…

The repair in Example 320 is a teacher-initiated teacher repair in so far as Cindy responds to one student's incorrect L1 translation of 'rigorous' with a repetition in a doubtful tone in Line 3. Then she smiles and provides a correction in the same Line.

Example 903

This is the start of a reading comprehension activity:

1 J: …You know I chose this passage deliberately for you. Deliberately?

2 (John looks around and elicits an answer with his body language)

3 S1: 认真地[tr: seriously]

4 J: (frowning) 认真地[tr: seriously]? deliberately?

5 S2:故意地[tr: deliberately]

6 J:故意地，[tr: deliberately]有意地，[tr: deliberately] 特意的，[tr:

7 deliberately]…deliberately, you know deliberate, because I believe this

8 passage still reflects part of the reality in China, in China, especially at the

9 present time, it was not a very competitive society…

Unlike example 320, Example 903 is another repair initiated by the teacher John. However it is done by the student. When John spots the mistake from one student he responds with a repeat of that student's L1 in a rising tone with a frowning expression. However, he refrains from giving the correction immediately. Instead he appeals to the rest of the class with the repeat of the target term again. In the end, another student responds with the correct L1 equivalent. Then John repeats that and also continues to give another two synonyms of the L1 equivalent for the target term 'deliberately' in L1.

6.1.5 Grammar teaching

This newly added subcategory onto Macaro's model represents a small number of codeswitching from both teachers in which they switch to L1 for the explanation of grammar rules. Cases of this category were hardly found in Macaro's study (1998a). Below are three examples of this kind from the present study:

Example 552

Cindy is showing her students how to use the subjunctive mood:

---

1 C: …I wish I were only twenty years old. In fact I'm not. So I were, I
2 were, 这个地方表示，相当于本来用 I am ok if…结构， if 引导的条件
3 状语从句－'If' conditional clause.那么**这**种情况下也要用虚**拟**语气啊
4 ，通常会用如果你是我的话if I were you. If I were you 我会给他更多
5 的建议.[tr: here it refers to, equals to the structure of 'I am ok if…' the
6 adverbial conditional clause led by 'if'. Under such conditions, the
7 subjunctive mood needs to be used. Usually we use 'if I were you. If I
8 were you,' I would offer him more advice] Ok…
9 S:(indistinct)
10 C: would miss or would have missed.

Example 1023

John is analysing the reading passage and highlighting 'negation' as an important language point:

---

1 …And also in the first sentence of this paragraph, a negation is
2 involved. 大家还要注意另外一种否定方式。其实我已经讲过了四种
3 是吧[tr: we need to be aware of another way to negate a sentence.
4. Actually we have talked about four kinds, haven't we?]. Nobody is
5. here…

Example 1107

John and his students are engaged in a reading activity:

1 …priority, 再加个复数[tr: add a plural form]， priorities, so we in

2 Chinese culture have different priorities…

Example 552 offers important grammatical information on the use of the subjunctive mood. Although grammar teaching is not the course objective, grammatical errors are still the bugbears for which university EFL teachers are constantly on the lookout. In addition, Example 1023 from John introduces grammatical information about the ways of making negative sentences while Example 1107 is the provision of L1 information on the subject of turning singular form into plural forms.

6.2 Eliciting and Repairing

This function of eliciting and repairing is cross-categorically situated at both the medium and message end, and occurs quite frequently in the corpus of lessons.

6.2.1. Eliciting

As evident from the data, the pattern for eliciting appears to include:

- L1 provision of instructions to provide an answer;
- L2 provision of instructions to provide an answer, with the exception of the target word.

The former pattern is not as frequent as the latter, as, for example, those elicitations with an emphasis on lexical items which may include utterances such as, 'How do you say *X*?' '*X,* how do you say?' Or, '*X*, meaning? (See Examples 916, 1015 below). These questions are already part of the teachers' repertoire, and it seems that, with a few exceptions (e.g. Example 411), there is no need to ask a question completely in L1. This seems partially to support the observation made by Macaro(1998a) that 'questioning is rarely couched in L1' and 'questioning techniques are so ingrained in teacher and pupil interaction that the latter are expecting them automatically as discourse forms' (Macaro1998a:195).

The following is an interesting example of this category:

Example 411

Cindy is explaining the word 'transition' in the first part of the lesson:

---

1 C:… now ,transition, transition, transition means turning point, right,
2 turning point, something like turning point, transition, for instance,
3 adolescence is the transition between adulthood and childhood, childhood
4 and adulthood. Do you know what adolescence means?
5 …adolescence?... (Students keep silent) **这个单词大家肯定是学过的啊,**
6 **在童年和成年之间, 这个过渡期是什么?** [tr: I'm sure that you have
7 learnt this word before, haven't you? (Cindy writes the word
8 'adolescence' on the blackboard), What is the word for the period of
9 transition between childhood and adulthood?].
10 SS:**青少年**[tr: teenager]

11 C: Yeah, 青少年 ,青春期,[tr: teenager, adolescence] adolescence,

12 adolescence, adolescence …

Example 411 is a combination of repair and elicit. When Cindy is providing the meaning for the word 'transition' in a L2 utterance which contains the word 'adolescence' in Line 3, she predicts that the word 'adolescence' may cause trouble to the interlocutors. So, she naturally checks the meaning of the word 'adolescence' by providing an L2 elicit at the outset and the repetition of the target word in Line 4 and 5. The silent response on the part of students provokes in her a need to initiate a codeswitch. However, the codeswitch is not a direct L1 equivalent for 'transition'. It is a L1 elicit in which the L1 equivalent for the earlier target word 'transition' is embedded. Finally some students have nearly worked out the meaning and Cindy codeswitches again to confirm the meaning for 'adolescence' in Line 11.

This is a highly interesting codeswitching episode in which there is a gradual shift from focusing on one target word to another by codeswitching. Therefore, we have one codeswitch in Line 5 and 6 which helps with the meaning for two L2 words. We will return to this example in Chapter Seven for students' reaction to it. It is also interesting to note that in codeswitching, before she asked about the meaning of the word 'adolescence', she said 'I assume that you have learnt this word before'. However, her students' reply was negative and thus reflected consistently in her later answer in TESLK data in that she thought students would not have previously learnt the word.

Some more examples follow:

Example 916

John is engaged in the activity of teaching vocabulary:

…Do you have some other words meaning 冲突[tr: clash] to replace this one (clash)?

Example 1015

This codeswitch occurs within the first ten minutes of the lesson which focuses exclusively on vocabulary:

… How do we say 不稳定[tr: unstable]? unstable , yes,

Example 1403

This codeswitch takes place in the beginning of the lesson summarising a reading text:

---

1 …So, one thing we have learned from this passage is, is what? 我们从这

2 篇文章里学到了什么？ [tr: what have we learned from this passage?]

3 So, one thing we have mentioned, that is…

Examples 916 and 1105 are two short L1 elicitations of lexical forms. Example 1403, however, is a one-sentence-long elicit completely in L1 which asks for meaning other than form, as in 916 and 1015. The elicit in 1403 contains a question based on the understanding of the reading passage.

6.2.2. Repairing

The following examples of codeswitching all resulted from discourse breakdowns to a certain extent. The effort to remove the threat to discourse integrity caused by learners' errors and mistakes is often referred to as repair. Repair, as a teaching strategy more distinctively related to language classroom teachers, has been studied in some considerable detail in SLA research (e.g.Schegloff, Jefferson and Sacks 1977). Here, the repairs refer to those made in L1 or partially in L1.

Some examples of repair from the corpus are presented below:

Example 524

Cindy is assigning turns to students one by one for translating Chinese sentences into English:

1 C: Ok, another one, 每学期开学前这些奖学金的申请表格就会由学校
2 发给每一个学生. 啊，这个,Liming[7]？ [tr: before the term the application
3 forms for scholarship will be sent to each student. Erm. This. Li Ming]
4 L: Before the vacation is over, these applications for scholarship will be
5 sent out from university.
6 C: Once again 再来一遍[tr: once again]
7 L: Before the vacation is over,
8 C:啊，你是说假期结束，本学期开学以前和假期结束很不一样，这

[7] This is not the student's real name. Throughout the thesis all the names are pseudonyms.

9 个你先来做这个主句啊.这些奖学金的申请表格要发给每一个学生.[tr:
10 Oh dear! Are you saying the end of the term? Before the term is quite
11 different from the end of term. Now, do the main clause first, these
12 application forms for scholarship should be sent to each and every
13 student]
14 L: These application lists to apply for scholarship will be sent out
15 C: These application?
16 L: Lists.
17 C: What? Lists? 申请表格[tr: application forms] forms, right ,ok…

This is a rather interesting example of teacher-initiated repair. When Cindy spots the semantic discrepancy in the student's translation, she directs the student to try again, by asking him to reformulate the sentence first in L2 in Line 6 while she immediately utters an L1 equivalent for her immediate command in the same line. This can be literally categorised as a codeswitch with Translation L2 to L1. However, the emphasis is not on the explication of the semantic meaning, as is the case in most examples in 6.1.1.

Realising the failed attempt of a student's self-repair in Line 7, Cindy has to resort to L1 to first highlight the source of the problem, and to encourage the student to try again via the safer route of only doing part of the easier translation in Lines 8 and 9. After the success of this new attempt, another error emerges and Cindy feels obliged to repair again by first expressing her puzzlement by saying 'what?' in Line 17. She then repeats the source of the

problem, before providing a codeswitch of Translation L1 to L2 in the same Line.

Example 536

Cindy is asking her students to use the key phrase from the reading passage to make a sentence:

---

1 C: …the colleges take primary responsibility for the teaching and well-
2 being of their students take primary responsibilities for, Zhang Wei,
3 C: the company takes primary responsibility for his safe.
4 C: For what?
5 S: His safe.
6 C: He's safe? 他的安全吗你想说? [tr: Do you want to say ' his safety'?]
7 Safe is an adjective. You can only say 'safety' here… (Cindy is writing
8 the word 'safety' on the blackboard), ok, sit down.

Example 1207

---

1 J: This passage is talking about the differences or the similarities of the
2 two?
3 S: Differences (the student mistakenly places the stress on the third
4 syllable)
5 J: Again,
6 S: Differences (the student is making the same mistake again)
7 J: 注意发音[tr: pay attention to your pronunciation], again,
8 S: Differences (the student is making the mistake for the third time)
9 J: No. differences…

Example 536 from Cindy is, again, a teacher-initiated repair directed at one student's misuse of the word form that is a common problem to Chinese learners. Cindy highlights the source of the problem by means of a clarification request and obtains a wrong use again. Then she repeats the error in a rising intonation followed by an L1 confirmation check in Line 6, after which, she starts to provide the correct use in L2 in Line 7.

In contrast to Example 536, Example 1207 from John is a teacher-initiated repair which targets students' pronunciation problems, and is conducted across seven turns. The instruction in L1 in Line 7 does not appear until the failure of an L2 instruction in Line 5. However, this L1 repair in Line 7, which attempts to help the student to self-repair, does not succeed either. Eventually, an L2 instruction asking the student to do it again coupled with the provision of a correct model works.

6.3 Message-oriented codeswitching

6.3.1 Information giving

Information giving refers to the function of codeswitching which offers information in L1, the emphasis of which is on communicating a message exclusively on facts and not about language. Macaro (1998a) divided Information giving into the following categories:

Outside plane shift

Inside plane shift

Evaluative feedback

Reprimand (1:30)

(Macaro1998a:187).

Each of the above categories will be employed for the analysis of codeswitching of Information giving below.

6.3.1.1 Outside plane shift

According to Macaro (1998a:188), outside plane shift refers to 'those utterances which contain information not relevant to the current topic of discourse'. He further illustrates that the shift can take place either temporally (e.g. shifting to a lesson earlier or later) or topically (e.g. shifting to another topic or lesson content). Contrary to Macaro's finding (ibid) in this regard, outside plane shifts are slightly more frequent in the corpus of current study. In particular, in John's two lessons in which he makes a considerable number of digressions, he tends to make the shift quite frequently, as he is keen, at a certain moment of a lesson, to change the topic to one related to his personal life, beliefs, and past experience. This topic change is highly likely to be couched in L1, which is typical of adult classroom discourse. Example 913 is just one example of many.

Example 913

John in brief L1 talks about what remarks people make about him.

---

1 …今天早上走路有人说我你这个人受西方思想影响太严重了, 我真想
2 问问大家你们都有同感吗? [tr: Someone I met this morning on the way
3 up here said that I had been influenced heavily by the values and thoughts
4 of western society (the class laugh) I really wanted to ask: do you feel the
5 same?]. Do you feel the same?...

Similar types and numbers of outside plane shifts are not found in Cindy's lessons, with the exception of two or three lengthy outside plane shifts about information related to discipline, exams and the like, as exemplified below in Example 555.

Example 555

---

1 C: … So, fill in this form and this handout.这是两个form,然后口语方面
2 的是上次我们做了10个同学那么后天呢，我们还会做10个同学
3 …[tr: these are two forms, then in terms of the spoken English test, we
4 have done the test for 10 students. During the day after tomorrow, we will
5 do another 10 students…]

Example 555 occurs toward the end of the lesson involving instruction which does not require any imminent action.

6.3.1.2 Inside Plane Shift

Inside plane shift, according to Macaro (1998a:188), refers to those RL1s 'by the teacher that are related to the procedures and pedagogy of the immediate Topic or Discourse'. They keep the attention of the learner within the immediate tasks in hand and provide information necessarily needed for students to acquire the form and communicate the message. They, as Macaro (ibid) points out, can be the lowest possible level of the actualisation of teachers' discourse or lesson objectives. In other words, they are the utterances that can provide the direction of discourse.

Below are two examples of codeswitching episodes which contain information on learning strategies.

Example 103

Cindy is introducing the outside class English learning resources:

1 …And also some English magazines. English magazines. Erm, I think
2 there are a lot of English learning magazines such as English language
3 learning. English language learning, right? Ah, published by the press of,
4 I think it's, I don't know. Anyway it's 北外出的, 北外出的 ,英语学习,
5 五块一本 .[tr: published by BEIWAI[8], English learning, English learning,
6 a the price of 5 yuan per issue]…another one is called The World of
7 English…

[8] It's the short form for Beijing Foreign Languages University.

Example 1540

John is making students aware of the importance of conveying the same meaning in different ways:

---

1 ...Instead of saying once a year, here we have a year apart, 追求这种变化

2 [tr: seeking the diversity of using lanaguage], of course, we can say

3 sometimes once a year…

These instances, which involve the introduction of learning strategies, represent time-out from normal L2 instruction. In 103, after the repeat of the magazine's name, Cindy switches to L1 to provide two pieces of information related to one English learning magazine, i.e. name of the publisher and the pricing of the magazine. The former piece of information is useful to distinguish itself from other similar magazines and the latter gives students some idea of its affordability. This information of course can be conveyed to students perfectly using L2. However, the use of codeswitching may signal Cindy's degree of emphasis on her recommendation.

In 1540, John employs codeswitching to probably raise his students' awareness of the value of attempting different expressions to mean the same thing. Following a demonstration of the contrast of two structures expressing the same meaning a short burst of codeswitching gives students a piece of meta-cognitive strategy, i.e., to seek to enrich one's language by diversifying one's expressions. We will return to example 103 and 1540 in Chapter Seven for students' reaction.

There are also codeswitching which touch on the lesson topics. Example 404 and 1041 are two instances.

Example 404

---

1 …and also the university was named after him.

2 这个 man就是哦我们所说的那个tycoon,巨头，这个行业的dominator

3 [tr: this 'man' is what we refer to as 'tycoon', tycoon, this industry's

4 'dominator'], the most powerful person in the field…

Example 1041

John is illustrating the relationship between the use of language and thinking:

---

1 …for example, an artist, he's trying to paint a picture, and he or she does

2 not use language to think, and he uses a paper to think, **对**不**对**, 现在就

3 让你画一个猫, 你能不能说你不在想猫,**这**有个'须'什么的? [tr: right?

4 Now I ask you to draw a cat. Can you say that you're not thinking about

5 the cat? For example, a whisker here] (gesturing)…then what's in your

6 mind is a picture of a cat or a tiger…

---

404 is a highly interesting example of codeswitching. The entire utterance in Line 2 can be taken as one complete codeswitch which offers some biographical information about the man in the discussion. Given that the L2

boundary should be literally applied, and that is likely to result in three smaller codeswitches. Closer analysis suggests that the L2 word 'man' is likely to be a slip of the tongue and should not be treated as a codeswitch here. Indeed, this also violates the codeswitching rule here as the switch site was not common (See 2.1.3 about grammatical constraint in Chapter Two). Taken together, the whole utterance in L1 in Line 2 could be treated as an Information giving codeswitching.

The codeswitch in 1041 contains interesting information about a highly philosophical topic on the relationship between language and thinking. The codeswitch is neither a translation nor an elicitation, and forms a complete meaning-making utterance combined with the L2 utterances. Lesson observation appears to indicate that John has a preference for this type of language usage.

6.3.1.3 Evaluative feedback

Out of all the Information giving instances, only three are related to teachers' feedback on students' contribution to the teacher and learner interaction, as exemplified below.

Example 445

Cindy and her students are engaged in the activity of translation:

1 …Which one do you feel is better; the first one or the second? Very

2 good, 大家的语感很好, 我们说这个地方 [tr: Well, you have a good
3 sense of language, we say here] , the park is located right in the centre of
4 the town…

Example 529

Cindy and her students are engaged in the activity of translation:

---

1 …Ok, 'before the start of each semester', not 'before the vacation is
2 over', 'before the vacation is over',完全不对啊[tr: totally wrong],
3 after the vocation….

Example 445 is a typical IRF pattern in which Cindy initiates a question on the appropriateness of translation sentences. Then students move to respond correctly, which is commented upon by Cindy. What is also interesting is that the codeswitch extends beyond the feedback function with the phrase 'we say here' it straddles between the praise and the L2 continuation and is intra-sentential. Example 529 is also a feedback on the formal aspect of the language. However, it is a corrective feedback which may be slightly negative, as Cindy corrects the student explicitly in front of the whole class, which might be de-motivating for the student. Both instances are types of evaluative feedback which do not necessitate immediate action.

6.3.1.4 Reprimand (1:30)

Reprimand here refers to the function of codeswitching to provide criticism of a student's action or behaviour which fails to adhere to classroom rules and

regulations or those set by the teachers or school. Instances of codeswitching for 1:30 reprimand have not been found in the corpus of lessons, as classroom discipline appears not to be a major concern for these two adult university classrooms under observation, a stark contrast to the finding of frequent reprimands from Macaro (1998a). Although there are times noted in Cindy's class when she used L2 to ask students to keep quiet, this may have an effect of mitigation as in L1 it would be too confrontational. However, even these reprimands in L2 are very rare. This is also true in John's lessons as observations seem to suggest that he never makes any reprimands directed at the whole class.

Thus no reprimand directed to the whole class is found in both teacher lessons except a tiny number of one-to-one reprimands found which will be looked at in 6.3.3. This finding may serve as a contrast to findings in other settings for example with younger learners. One example of reprimand (1:30) borrowed from Macaro (1998a) is displayed here:

Lesson M4
(Taking register)
1 M: ok, Danile?
2 P1: oui monsieur
3 M: Danile Jones?
4 P2: oui,monsieur
5 M: Patrick ?
6 P3: oui monsieur
7 M: Thomas
8 P4: yes Mr....oui monsieur
9 M: Daniel?
10 P5: oui
11 M: no talking please, Edward?
12 P6: me voil'a monsieur

(Macaro1998a: 191).

This episode, according to Macaro (1998a), is a mild rebuke to the whole class, expecting the total silence from the class and focus on the teacher.

6.3.1.5 Focus on rapport

Pertinent to the present study, a new subcategory of the message-oriented functions: 'focus on rapport' is proposed to adapt to the data in the present study. All instances of this subcategory are from John's lessons, there being no evidence of this in Cindy's lessons. John appears to be keen to maintain close interpersonal communication with his students. Sometimes he tells jokes in L1 to build up his rapport with his students, as evident in the following three examples.

Example 930

John is talking with students about their pay scale in the job market:

---

1 J: …Today young people are very ambitious, 研究生一毕业年薪没有三

2 四万不够用[tr: a person with a postgraduate education cannot make his

3 ends meet if he or she cannot make annual income to the amount of thirty

4 or forty thousand Yuan.]

5 S:三四万太少了[tr: the amount of thirty or forty thousand is not enough]

6 J：是啊， 还得翻倍，[tr: Yeah. It has to be doubled] so, you are very

7 ambitious.

8 SS: (students laugh)

Example 940

The same context as in example 930:

1 …This is good, This is good, 我从来不会嫉妒年轻人赚钱，越多越好
2 而且我也喜欢你们那种生活方式，敢挣敢花，good, 所以有月光女郎,
3 right? (Students burst into laughter)， [tr: I never envy young people to
4 earn money. The more the merrier. Also I admire your life style. The
5 more you make the more you spend, good, so that's Miss moon light[9]
6 right?]. So, I mean I missed the chance…

Example 1636

John is making a comparison between China and the USA in situation of the monthly child support payment after couple's divorce:

1 …Do we have a similar thing in China? 没有吗？过去不给吗？那么说女
2 方没有工作男的不给吗？如果男方没有工作的话， [tr: No? what
3 about the situation in the past? What if the woman is unemployed? What
4 if the man is unemployed?] then you have to… (all laugh). It is true. So,
5 we are equals. Why do we have to give money to you after divorce?...

Example 930 contains John's echoing of his students' comments on the level of income that a new graduate may receive when they take a professional job after graduation. His codeswitch in L1 is a sign of his acceptance and endorsement of his students' views on the issue of income. The L1 used in

[9] Miss moonlight is a humorous saying which means 'spend all your earnings every month' as the Chinese equivalent 'yue guang' for 'moonlight' can also be twisted to mean 'barely maintaining each month'.

940 is quite humorous and entertaining, as it expresses John's admiration of a young man's extravagant life-style. It also reveals the slight pessimism he has, as he thinks he has missed such fun. In 1636 John talks about who, in China, should pay for the monthly child support fee if a couple divorces. His view is balanced and humorous, as he thinks men should also be compensated if they are unemployed in the cultural context, and that China is indeed a male-dominated society. Therefore, it may be argued that the impact of humour in all these examples is hardly achievable without the use of codeswitching.

6.3.2 Instructions

It has been established by Macaro (1998a) that codeswitching with the function of 'instruction' can be understood either as those requiring immediate actions from the students or those which do not. Those which do not involve any imminent actions on the part of learners may belong to the category of 'outside plane shift' in 'information giving', as discussed in 6.3.1.1. Those which involve immediate actions on the part of learners are termed 'procedural instruction'. Examples are presented below.

Example 304

After going through an extract about Yale University, Cindy utters:

1 C: … This is the first paragraph, ok? Any, anything troubles you here? Is
2 there anything you don't understand clearly in the first paragraph?
3 SS: (Students keep silent)

4 C: 有问题就问啊？ 赶快！[tr: Ask if you have got any questions.

5 C'mon!]

6 SS: (Silent)

7 C: Anyone? If you don't, we will move to the next paragraph…

This is a typical instruction in such an EFL classroom that Cindy, before moving on to the next phase of the lesson, offers students opportunities to seek help from her if they encounter problems in their learning. This instruction was first uttered in L2 and repeated in short L1. It is quite obvious that this short burst of codeswitching helps to speed up the teaching, a function of codeswitching which is often reported in the literature.

Example 453

Cindy is asking students to make sentences by using the target structures:

---

1 …So, so, speak slowly and clearly.慢一点啊 [tr: slowly please],

2 students take primary responsibility for…?

Example 525

One student is making an English sentence using the recommended structure:

---

1 S: Before the vacation is over these, these application forms will be sent

2 out to university students

3 T: Once again 再来一遍[tr: Once again]

4 S: Before the vocation is over…

Example 615

Cindy is framing a new reading activity:

1 … Anything here? No? Now I'll check your self-study book and I will
2 ask you some questions.拿出你们的扩展教程 [tr: Take out your
3 expanding coursebook]...Let's focus on passage C…

All the above examples are almost always teacher initiated and are within the domain of message-type codeswitching. these instructions are directed to the whole class and they are also very short and fall within the same speaker turn. With the exception of 304 and 525, no examples have a translation element either directly related to or associated with them.

6.3.3 Reprimand

As mentioned in 6.3.1.4 a small number of examples of mitigated one-to-one reprimand were noted, as detailed below:

Example 619

Cindy spots that one student is not concentrating on the study when doing the reading task:

1 C:…Actually the whole text is about, talking about the educational
2 programme in MIT there. What's that programme? You know that?
3 What's OCW[10]? Zhang Qiang, Zhang Qiang,
4 S: (the student keeps silent)
5 C: 没听清我的问题是吗? [tr: you didn't get my question, did you?] I

[10] OCW is an abbreviation form for open courseware.

6 mean, how users benefit from OCW….

Example 929

John is asking a student named 'Zhao Bo' to read the text. However, the student is reluctant to do that:

---

1 …Now let's move on, Zhao Bo…为什么等这么长时间而且看着我，

2 知道我要给你画叉就站起来了[tr: Why did you wait for so long to

3 answer my question? You responded because you knew that I would

4 mark a 'cross' to indicate that you did not turn up in the lesson]，right.

5 sit down, please…

Example 1243

John is asking one student to read aloud from the textbook and finds that she does not have the course book with her:

---

1 J:…Qian Juan, would you read Paragraph Three please?

2 S:书忘带了[tr: I forgot to bring the textbook with me]

3 J:愚蠢的错误[tr: A silly mistake]，sit down please…

In Example 619, when Cindy raises questions related to an extract introducing OCT - the open course programme in MIT, she spots one student switching off, and so she asks him to answer the question, which he fails to do. Then Cindy raises a question in L1 in Line 5. This question apparently carries with it a tone of reprimand, showing Cindy's displeasure about this. Example 929 and 1243 from John's lessons are of a similar nature, there being no examples of direct and fierce disciplinary remarks. They are rather

indirect, mitigated however, and sometimes a bit ironic. In all probability, this is due to the fact that the recipients of the reprimand are responsible grown-ups who tend not to commit serious disciplinary problems.

Chapter Summary

The major objective of this chapter has been to investigate the functional orientations of codeswitching in the study data. The codeswitching data has been first structured and organised by applying the functional model of teacher codeswitching (Macaro 1998a). Examples of codeswitching have been commented upon against their wider discourse context, facilitating recognition of the emergent pattern of the syntactical relationship between the codeswitch and the surrounding text, as well as their possible pedagogical value.

It has been found that both discourse and pedagogic context of codeswitching occurrence are complex and heterogeneous in the codeswitching behaviour of both teachers. The work so far has demonstrated evidence of quite a wide range of functional uses of codeswitching with both teachers. The analysis commences first with the medium type of codeswitching. A wide range of patterns has emerged from the data, especially in Translation L2 to L1. Further examination of the emerging pattern of the Translation L2 to L1 type of codeswitching, together with the students' reaction data in Chapter seven as we shall see, has begun to provide some ground for a new area of study on

the role or effect of codeswitching in comparison to other type of input modifications.

Upon closer look, there also appears to be a number of interesting patterns in regard to message-oriented codeswitching, especially in Information giving for both teachers. The analysis suggests that in Cindy's lessons, Information giving tends to be infrequent, long and pre-planned. However, in John's lessons, most Information giving tends to be frequent, short and unplanned. They do not differ much in terms of the remaining message-oriented functions that codeswitching performs. In general, teacher John's codeswitching behaviour seems to be more complex in some of the observed lessons. We have also observed that Cindy appears to have more consistent codeswitching patterns.

With regard to the implication of these patterns it seems that extra layer of evidence is needed. The next chapter will consider the students' reaction to teachers' codeswitching from two perspectives: their attitudinal reaction and their strategic reactions.

Chapter Seven: Results of Students' Reactions

Introduction

This is the last chapter of a tripartite results report and it presents the outcome of students' reactions to teachers' codeswitching collected via stimulated recall, with 32 student participants in the study. The details of the SR procedures and how the study has been conducted have been described in Chapter Three.

This chapter consists of two sections. One section is the report on student attitudinal reactions toward their teachers' codeswitching behaviour. The other section reports on strategic reactions used when students are prompted by teachers' codeswitching. When considering these results, readers need to bear in mind that in the actual data, individual respondents articulate in terms both of their feelings about their teachers' codeswitching behaviour in general, and their specific response to the codeswitching when it actually happened, depending on what they could remember and what their overriding impressions were.

It is worth stating that there are times when respondents reported that they engaged their mind in something other than thinking particularly about the codeswitching, i.e. the reactions produced are not relevant to this study. For example, when asked about how one respondent reacted to the following codeswitching:

Example 814 (medium-oriented: translation L2 to L1), she made the following comment:

> Well, I probably sent a mobile message, I might have been on the verge of breaking the class rules, and I didn't know what to think. I sent a message.
>
> (Zhang Hui).

In addition, there are also one or two times when respondents reported that they did not catch the codeswitch either because they experienced the problem of hearing for one reason or another (e.g. a male respondent's reaction to codeswitching example 1656). Below the attitudinal responses from student participants in 7.1 will be presented first.

7.1 Attitudinal Reactions to codeswitching (Positive versus negative)

The verbatim transcript of students' stimulated recall data is analysed qualitatively and students' comments on their teacher's codeswitching behaviour are coded into the categories of 'positive and negative'. For detailed procedures refer back to 3.5.4.

Among those respondents who have expressed their attitudinal reactions towards codeswitching, they can be split roughly into two groups, positive and negative. Overall, most respondents made positive comments about teachers' use of codeswitching while a small number of them made negative comments.

7.1.1 Positive reactions to codeswitching

According to Table 7.1, those who express their predilection about codeswitching include twice the number of undergraduate respondents from Cindy's classes than postgraduate respondents from John's classes. Among them, there was an equal number of females and males.

Table 7.1: Student respondents who had positive reactions toward the use of codeswitching in L2 classroom

Interview No.	Grade and teacher	Interviewee	Gender
3	Undergraduate; Cindy	Zhao Feifei	F
4	Undergraduate; Cindy	Wang Xiaoming	M
9	Undergraduate; Cindy	Gao Jie	F
12	Undergraduate; Cindy	Tang Chao	M
13	Undergraduate; Cindy	Li Meizhu	F
14	Undergraduate; Cindy	Du Ming	M
15	Undergraduate; Cindy	Zhang Hui	F
16	Undergraduate; Cindy	Jin Zhongjun	M
23	Postgraduate; John	Sun Fengxia	F
25	Postgraduate; John	Wang lan	F
26	Postgraduate; John	Kang Wenhao	M
27	Postgraduate; John	Qian Jun	M

Some interesting comments are presented below:

The first one presented here is an emotive account of how one reacts negatively to the L2 input provided by the teacher:

> It felt like I was listening to some sort of alien words (L2). Sitting there, feeling baffled, I hardly understood what she was saying; I just watched her. Sometimes, I could understand a bit. But I couldn't help myself when I wasn't able to grasp her meaning.
>
> (Zhao Feifei).

Probably her comments are slightly exaggerated. However, it does reflect that comprehension problems are associated with the L2 exclusivity, destroying her confidence and putting her in a state of feeling deprived and helpless as she added:

> I felt like an idiot and couldn't figure out what she was saying.
>
> (ibid).

This craving for meaning and clarity is surely not unique and may be felt acutely by those who feel less competent in their listening and the frustration they experience when they realise how things sometimes can be taken for granted by teachers as demonstrated in the following quote by a postgraduate respondent:

> … so when we encountered comprehension problems with the teacher, and when we were in need of his clarification, he took it for granted that we all knew what he meant and just carried on. But I got stuck at that point and couldn't figure it out. This may last for days…
>
> (Qian Jun).

Without the help of codeswitching this respondent admitted that he would get stuck even for days before he could figure out the meaning. This wrestling

with word meaning seems a common scene and forms an every day task of being a foreign language student in classroom. For example, 'loud' seems not a difficult word until it is used together with 'loud colour'. What does the idiomatic phrase 'loud colour' mean? Is it easy to understand? This phrase caused some problem for one respondent, as she attempted one Chinese equivalent 'ming liang de (bright)' for 'loud colour' and unable to convey the exact negative connotation of being offensively bright that the phrase has. However, later she realised that her understanding was incorrect. Thus she admitted:

> If the teacher hadn't said that, I might have stayed with my previous assumption. Now I know how to use 'loud'.
>
> (Zhang Hui).

Facing the same idiomatic phrase, another respondent reported that she also made quite a big effort to guess and also an expectation appears naturally from her:

> Sometimes, I have a mental expectation (teachers' L1 explanation), and hope teachers will elaborate on those difficult words by using a bit of Chinese.
>
> (Li Meizhu).

Apart from comments associated with comprehension, respondents also made the following positive comments:

The use of codeswitching offers opportunities for direct attention.

> I think whenever the teacher explains it in Chinese (L1); it must be an important language point. She might get worried about our comprehension, so we should concentrate more then.
>
> (Gao Jie).

Codeswitching reinforces the outcome of the previous processing.

> She was explaining the meaning of 'charter'. As I did a careful preview of the article, I knew the meaning of charter already. I felt slightly excited.
>
> (Tang Chao, in reaction to codeswitching example 616).

Codeswitching reduces the cognitive load when other processing strategies such as 'inferencing' fail.

> Oh, right. A year apart ...Erm, I hadn't thought, in my own reading of this article, that 'once a year' could be expressed as 'a year apart'. I understood it as a year can be split into a few parts. [.....]Then he said 'once a year', along with a Chinese prompt (the meta-linguistic information in L1 provided by John), and so I got it and I made a note of it.
>
> (Chen Lei).

Codeswitching can increase the content (Li Na, an undergraduate).

> Then my first reaction was that she was giving me a new expression. She said she was not particular about food. She was giving me another expression. This was what I was thinking about at that time.
>
> (Li Na, in reaction to codeswitching example 114).

Teacher codeswitching helps students to codeswitch from L2 to L1 to positively transfer the syntactic information.

> It's impossible for me to learn how to use an English word the first time I am exposed to it. On the contrary, I have to first think about how to use its Chinese equivalent in a Chinese context, for example, which word is used with this word together. Only then can I begin to understand how this word is used in an English context.
>
> (Kang Wenhao).

Codeswitching helps to reduce anxiety (Li Na, an undergraduate).

> I felt quite relieved as the word (author: subtitle) I had so painstakingly searched for was being spoken out.
>
> (Li Na, in reaction to codeswitching example 106).

What can be inferred from the above comments can probably be boiled down to one point, namely codeswitching are seen as beneficial and helpful probably because codeswitching can help to reduce learners' cognitive load, a theme that will be further examined in 7.2 of this chapter and discussed in Chapter Eight.

Given the perceived benefits reported by student respondents, it has to be made clear that respondents do not accept codeswitching indiscriminately. In other words, they had certain preference of one kind of codeswitching over the other. Clearly their acceptance and rejection of codeswitching are not blind and appear to be based on reasons. This reasoning can be traced from the following comments. The following is an interesting comment:

> I personally, would like to suggest that the teacher should make his Chinese clearer; not to make just a few discrete language points, or unnecessary sentence-by-sentence Chinese translations, but to target a few important points and explain them in depth.

(Wang Lan).

Though Wang Lan seems to be a bit assertive in her comments she does point out a need that students are not satisfied only at the level of inferring the meaning from the context. They seem to ask for more targeted focused instruction on some formal aspect of language rather than some implicit inferred learning. In addition, there are also a number of comments to show their understanding of why teachers codeswitch for some other purposes at certain points of time in a lesson.

> I think Chinese is best used when assigning homework. If English is used, it is likely to be confusing if comprehension problems occur.
>
> (Tang Chao).

> It's all right to say one or two sentences in Chinese when the lesson is coming to an end.[……]What will follow, what assignments to do, these are all conveyed in Chinese.
>
> (Du Ming).

> I just feel that under certain circumstances, Chinese should be used. Sometimes, he explains a word, or he might think of some stories and tell us. He uses a bit of Chinese .
>
> (Sun Fengxia).

In the next section we will look at respondents' negative reactions toward teachers' codeswitching.

7.1.2 Negative reactions

A very small number of respondents (Table 7.2) expressed their reservations about the use of their teachers' codeswitching in classroom, especially towards certain types of codeswitching. Among those who felt negatively about teachers' codeswitching, there were an equal number of undergraduate and postgraduate respondents as well as an equal number males and females (7.2).

Table 7.2: Student respondents who had negative attitudes toward the use of codeswitching in L2 classroom

Interview No	Grade and Teacher	Interviewee	Gender
29	Postgraduate; John	Li Qiang	M
5	Undergraduate; Cindy	Xu Mei	F
7	Undergraduate; Cindy	Gu Xin	F
22	Postgraduate; John	Lu Chuan	M

First, when asked about their reactions towards certain codeswitching episodes for example, codeswitching with message functions and delivered with less defined reasons, some respondents made some less positive remarks in passing, by suggesting that as target phrases may be so easy that codeswitching for it may have been quite unnecessary.

> I felt that he should have used English to say '1994' because I would have been able understand that.
>
> (Song Ling, in reaction to codeswitching example 1439).

It is not so clear why '1994' was spoken in Chinese. Probably it was used as a device to get students' attention or to mark the change of topic. However, this codeswitching here seems to be less favoured by the above respondent. This feeling is echoed in the remark made by another respondent from Cindy's class:

> I feel that my English is ok, and I can follow her use of English. However, when she kept speaking English in the class, sometimes she blurted out 'yeah, right. Now let me say something about this word in Chinese', I felt quite odd [……] because I felt a sense of disturbance as I know the word.
>
> (Gu Xin).

What this message and above seem to suggest is respondents do react to different kinds of codeswitching. In other words, their attitudes vary with the nature of codeswitching. Probably only those lexical items less known to students will be appropriately acknowledged positively by students and, codeswitching based on less thoughtful decision-making may not be received positively by student respondents. In addition to these mild reservations to certain kind of codeswitching, preference for L2 exclusivity was also expressed by some respondents, albeit limited in number. They favour the idea that they should be taught in an exclusively L2 environment. They seem to hold the belief that as long as enough L2 is spoken to them they will achieve success in L2 learning. Below are two quotes:

> This (L2 exclusivity) is good for the memory and also creates a good atmosphere. I tend to think that codeswitching should not be so frequent. Less familiar vocabulary should be explained (in Chinese) and displayed on the blackboard.

(Xu Mei).

> It would be great if there were a Chinese explanation of a difficult English sentence. However, I feel exclusive use of English is necessary to create an English environment.
>
> (Li Qiang).

What these comments suggest is that despite the high expectations for the exclusive use of L2, the codeswitching for the purpose of explaining less frequent vocabulary is preferred. The detailed cognitive processes students react to those codeswitching targeting less frequent lexical items will be reported in 7.2.2. This important theme will be pursued in more detail in Chapter Eight.

Summary of 7.1

What we can glean from the above portrayal is that, predominantly students' positive attitudes towards codeswitching by their teachers have a bearing on the functions of codeswitching for providing solutions to comprehension problems and reducing the cognitive load. This appears to be more attuned to the needs of less proficient learners, e.g. the undergraduates. A small amount of negativity towards certain types of codeswitching is identified in both student groups. This seems to relate to a group of motivated and relatively proficient learners as they long for some total immersion environment, and this can only be overridden by their needs for effective understanding and learning of less frequent vocabulary, which can be facilitated by some use of codeswitching.

7.2 Strategic reactions to codeswitching

We have reviewed learner strategies in 2.8 of Chapter two. This section is about how student respondents strategically react to their teachers' codeswitching. Here the 'strategic reaction' on the part of student respondents addressed in the present study refers to 'the cognitive and meta-cognitive processing which occurs in working memory in connection with L2 material of any kind' (Macaro in progress). A number of themes regarding the strategic reaction have been identified and are presented accordingly. The first theme of the reaction is accommodation.

7.2.1 Accommodation

Learners' accommodation of teachers' codeswitching is characterised by the process that learners apply less or minimum amount of selective attention to codeswitching. In other words, the processing of such codeswitching appears automatic and procedural. This reaction is exemplified in the following respondents' self observation of their thought processes.

Table 7.3 provides details of those codeswitching episodes associated with the reaction of 'accommodation'. It appears that undergraduate students produce twice the reaction of 'accommodation' than postgraduate students and the codeswitching they react to are all message-oriented with the functions of Instruction and Information giving predominantly. They acknowledge in their responses that they feel the codeswitching occurs and

can be received quite naturally, especially when the codeswitching performs the function of 'instruction'. This is a quite interesting finding and its insight will be discussed in Chapters Eight and Nine.

Table 7.3 Profile of codeswitching episodes producing the reaction of 'accommodation'

Codeswitching Episode	Teacher	Codeswitching Orientation	Codeswitching Function	Respondents' Gender (F=female; M=male)
Example 104	Cindy	Message-oriented	Information giving	F
Example 203	Cindy	Message-oriented	Information giving	M
Example 471	Cindy	Message oriented	Instruction	M
Example 501	Cindy	Message-oriented	Instruction	F
Example 516	Cindy	Message-oriented	Instruction	M
Example 615	Cindy	Message-oriented	Instruction	F
Example 617	Cindy	Message-oriented	Instruction	F
Example 619	Cindy	Message-oriented	Reprimand	M
Example 715	Cindy	Medium-oriented	Translation L2 to L1	M
Example 813	Cindy	Message-oriented	Information giving	F
Example 819	Cindy	Message-oriented	Information giving	M
Example 913	John	Message-oriented	Information giving	M
Example 1019	John	Medium-oriented;	Med: eliciting	M
Example 1037	John	Message-oriented	Information giving	M
Example 1138	John	Medium-oriented	Translation L2 to L1	M
Example 1143	John	Message-oriented	Information giving	M

Below are some detailed descriptions of episodes of codeswitching and the accommodation reactions related to them. These examples are chosen with consideration of the possible balance of codeswitching types from the two teacher groups.

Example 471 (inter-sentential; message-oriented; instruction)

…In a relay race, ok sit down, 赶快,大家把书翻到这个,今天事情非常多 [tr: hurry up, turn to page… we've got quite a lot to do today] Page twenty-five, …

This is an episode of codeswitching with the function of 'instruction' from Cindy's group. This function, as discussed in previous chapters, requires the learner to perform an imminent action and is understood as 'procedural instruction'. For example, the function is 'Do this' and the teacher wants to see an immediate effect such as a page turned, eyes looking to the bottom of the page, expansion books being taken out. These routine instructions are used probably for the purposes of saving time, speeding up the pace of teaching whilst some are employed to check comprehension and initiate an activity. More introduction about this codeswitching function can be found in 6.3.2 in Chapter Six. Upon hearing the codeswitching, one respondent made the following reaction:

> This sounded quite familiar, so I didn't notice any difference.
>
> (Feng Tao).

What the comment seems to suggest is the short burst of codeswitching of this type is less complicated both lexically and syntactically. They are normally in the form of inter-sentential codeswitching and can be inserted into the discourse without affecting significantly the surrounding discourse like intra-sentential codeswitching tends to do. In other words, the removal of the intra-sentential codeswitching from the discourse may cause problems to

the integrity of discourse or clause it situates. However, inter-sentential codeswitching are less likely to be affected like that. Therefore, it is highly likely that most of these Instruction type codeswitching are not processed in the learners' mind for long and they tend to go by unnoticed or be accommodated naturally as supported by the evidence from the corpus of data.

Example 617 (inter-sentential; message-oriented; instruction)

OK, 我请一个同学来翻译一句话 [tr: let me invite one of you to translate one sentence], ok. Translate my sentence, (pointing to one student)

In this codeswitching episode, a typical instruction has been made in the form of L1, followed by a repetition in L2. One male respondent made the following remark.

> It was normal, nothing special.
>
> (Ma Liyan).

This remark clearly shows a form of accommodation that learners have been long used to. She doesn't even notice if Chinese was used.

Example 619

Cindy spots that one student is not concentrating on the study when doing the reading task:

---

1 C:…Actually the whole text is about, talking about the educational
2 programme in MIT there. What's that programme? You know that?
3 What's OCW? Zhang Qiang, Zhang Qiang,
4 S: (the student keeps silent)
5 C: 没听清我的问题是吗? [tr: you didn't get my question, did you?] I
6 mean, how users benefit from OCW….

This is a codeswitch with the function of 1:1 reprimand which is quite rare in the corpus. (For more about reprimand refer back to 6.3.3 in Chapter Six). Faced with such a codeswitch, the respondent replies:

> Unlike the 'charter one', I felt this one was quite normal [……]. Oh, I got it, when the teacher started asking him, he didn't respond because he hadn't done the homework properly, then the teacher suddenly asked 'Have you got my question?
>
> (Tang Chao).

The comment shows that the respondent clearly treats this codeswitch distinct from other ones, e.g. the medium-oriented codeswitching with a focus on lexical item. This reprimand type of codeswitching appears to be accommodated naturally, producing less salience in learners' minds.

Example 813 (inter-sentential; message-oriented; information-giving)

…Only these three sentences? What about the titles? You didn't read the title? **这就是我们讲的** focus [tr: this is what we have talked about, the focus], What should you focus on now?

This inter-sentential codeswitching occurs in the context of Cindy's eliciting for the key idea of the text that she is helping the class to comprehend. This short codeswitching obviously provides a clue or confirmatory information for working out what the focus of the text is. One respondent's reaction is as follows:

> I thought it had been quite a natural transition in my mind.
>
> (Zhang Hui).

Zhang's comment shows that he had already accommodated this type of codeswitching and did not feel it was particularly salient.

Example 913 (inter-sentential; message-oriented codeswitching; information giving)

…**今天早上走路有个人**说**我你这个人受西方思想影响太多了**(Laugh)**我真想**问**大家有同感**吗?[tr: this morning on the way to work I came across one friend of mine. He commented that I have been influenced too much by the western thought. I can't help asking, do you feel the same?] Do you feel the same? …

This message-oriented codeswitching consists of two sentences in Chinese demarcated by John's laugh and it may be his attempt to approach the students for rapport. One respondent made the following recollection:

> Oh,oh,oh, I got it. I didn't think anything in particular here.
>
> (Yang Yang).

This clearly manifests that the codeswitching has been accommodated by the respondent in a rather natural way. In other words, it is not perceived marked in his mind.

Example 1019 (intra-sentential; medium-oriented; medium: eliciting)

…Then from the word 'negative' you should be able to see what it is (pointing to the blackboard). How is the sentence negated? How do you say 这,那里没有人啊[tr: well, no one is here?]; how do you say that ? Nobody is there, the same sentence pattern…

This codeswitching is an elicit in L1 with an emphasis on the checking of the meanings of lexical items in the form of sentence patterns, e.g. ' How do you say *X*?',' *X*, how do you say?' Or, '*X*, meaning? The following reaction is made.

> His Chinese switch had no effect on me. It flashed in and out of my mind because such a switch is very common.
>
> (Guo Yong).

Guo Yong's comments indicate that this type of codeswitching is unlikely to be noticed consciously, as it is 'very common'. It is possible that the

respondents, in reacting to the elicitation, tend to naturally search their mental lexicon without paying much attention to the details or strategies that they employ. However, this is only a speculative thought and further evidence is needed to support this claim.

Summary of 7.2.1

As evident from the data, it is probably reasonable to claim that such a reaction of 'accommodation' tend to be associated with certain codeswitching type. Message-oriented codeswitching, e.g. Information giving and Instruction, appear to produce most of this kind of reaction as evident in the statistics that 14 out of 17 message-oriented codeswitching are related to the reaction of 'accommodation'. However, it should be made clear that the causal link between the reaction of 'accommodation' and the codeswitching types are tempting though not conclusively established. In 7.2.2 we will look at another theme of strategic reaction: selective attention and processing.

7.2.2 Selective attention and processing

In this section, the details of strategic reaction students had in processing certain types of codeswitching, i.e. mostly medium-oriented codeswitching focusing on lexical items is reported. Table 7.4 provides a portrayal of those codeswitches which trigger a number of cognitive and meta-cognitive strategies from nearly equal numbers of undergraduate and postgraduate

respondents. The overwhelming majority of codeswitching were medium-oriented with the function of Translation L2 to L1.

Table 7.4: Profile of codeswitching episodes producing the reaction of 'Selective attention and processing'

codeswitching episode	Orientation	Function	Teacher	Respondents' Gender (F=female; M=male)
Example 103	Message-oriented	Information giving	Cindy	F
Example 106	Medium-oriented	Translation L2 to L1	Cindy	M
Example 114	Medium-oriented	Translation L2 to L1	Cindy	M
Example 323	Medium oriented	Translation L2 to L1	Cindy	M
Example 407	Medium-oriented	Translation L2 to L1	Cindy	F
Example 411	Medium-oriented	Translation L2 to L1	Cindy	M
Example 715	Medium-oriented	Translation L2 to L1	Cindy	F
Example 716	Medium-oriented	Translation L2 to L1	Cindy	M
Example 717	Message-oriented	Instruction	Cindy	F
Example 1046	Medium-oriented;	Translation L2 to L1	John	F; M
Example 1138	Medium-oriented	Translation L2 to L1	John	F
Example 1143	Message oriented	Information giving	John	M
Example 1239	Medium-oriented	Elicit in L1	John	F; M
Example 1254	Medium-oriented	Translation L2 to L1	John	F; M
Example 1360	Medium-oriented	Translation L2 to L1	John	M
Example 1564	Medium-oriented	Translation L2 to L1	John	F
Example 1566	Medium-oriented	Translation L2 to L1	John	F

In general, respondents described how they drew on their attention resources and employed certain strategies to process those low frequency lexical items with targeted codeswitching in their teachers' speech. Some best examples of codeswitching episodes and respondents' reactions pertinent to it are

presented below and they may represent the balance of codeswitching types and teacher groups.

Example 103 (intra-sentential; message-oriented; information-giving)

… There're lots of English magazines, such as, English language learning, English language learning, 英语学习 [tr: English language learning], published by the press of …

This four Chinese character long codeswitch inserted in Cindy's L2 speech gave the name of an English learning magazine. This strategic information about the outside class learning resources provided in the form of codeswitching has led Li Na to react as follows:

> The key thing is, for example, when she said 'English magazine such as English language learning', she paused for quite a short moment (Author: 4 seconds) between saying English learning in English and 英语学习 [tr: English language learning] in Chinese……. This corroborated my previous thinking. [……] At that time, 'English Language Learning' (the name of a magazine) came to my mind, and then a Chinese version of 'English learning', then as my desk mate said 'English language learning', my teacher said the same, so this gave me the sense of corroboration.
>
> (Li Na).

Li Na reported her effort to link the meaning of 'English magazine' both in L1 and L2. Her comprehension appeared to be assisted by the provision of L1 provided by both her peer and teacher. This is not an unfamiliar lexical item as contained in other examples later in this section. However the name of this

magazine, being quite important information about learning resources, may require equally considerable effort to retain the information as other medium-oriented codeswitching do. Example 103 with the function of Information giving is uncommon in terms of the strategic reaction it triggers. An example of codeswitching with another function is presented below:

Example 106 (intra-sentential; med L2-L1; target item 'subtitle'; TESLK=item 'not known')

… I strongly recommend you to watch English movies, English movies, in the original version, without, without seeing the subtitles in Chinese, 不要看中文字幕 [tr: Don't look at the Chinese subtitles]. Ok, you can read the English subtitles…

This is an intra-sentential codeswitching in which L1 provides an exact translation of a command phrase '不要看中文字幕[tr: don't look at the Chinese subtitles]' which contains a rather new word 'subtitle' to students. Zhang Fan, a male student, reacting to the same codeswitch, in the second interview made an interesting remark.

> …Actually I can feel that she was slowing down her speech a bit when she was saying 'subtitles' in English. She was slowing down. And my immediate feeling was she was about to repeat it in Chinese, because she knew we didn't know the word [……]. Generally speaking, when teachers (of English) say one word slowly and with stress, they tend to repeat it in Chinese…
>
> (Zhang Fan).

Zhang Fan's comment described his strategic awareness of the teacher's pedagogy. He was monitoring the teacher's speech and recognised with ease the prosodic features in that speech. As a consequence, it is probable that by relying on this knowledge, he was able to make the decision to direct his attention to the input that interested him. This knowledge may have been acquired from years of his experience in the EFL classroom. In addition, his guess about the teacher's decision to use codeswitching (i.e. *"she knew we didn't know the word")* seems to be proved correct by the results from the follow-up TESLK data in that this codeswitch for 'subtitle' appeared to be planned because Cindy, though in retrospect, categorised this word as the vocabulary that she thought learners might have not known prior to the lesson.

Example 114 (inter-sentential; med L2-L1; target items 'not particular about'; TESLK =data not available)

You may say, if you don't have a favourite food, I like all kinds of food. I'm not particular about food. Right, I'm not particular about food, 我不挑食 [tr: I'm not particular about food]. Ok, I like everything…

In this extract, there is no apparent comprehension check of the phrase 'I'm not particular about food'. One respondent offered the following:

> Her use of Chinese is reassuring and familiar to me…however, one thing worth mentioning here is that I often go blank for a moment when a Chinese word or a sentence pops up in this English dominated class… as I'm tuned into the English….when Chinese pops up, at first, I treat it as English, and then, once I realise it is Chinese, I look for the Chinese meaning of the word.

(Zhang Fan).

For Zhang Fan, the switch is reassuring in its provision of semantic information even though there appears to be some kind of processing perturbation when the switch occurs, so much so that at first she treats the L1 as L2 before starting to make L1-L2 connections.

Example 323 (inter-sentential; med L2-L1; target item 'fruitful'; TESLK=data not available)

C: …Can you tell me the meaning of 'fruitful'?

S: '**成果**' [tr: good outcome of an effort])

C: Yeah, 硕果累累的有成果的 [tr: abundantly fruitful, fruitful], Ok, with research environment…

This interesting episode of codeswitching occurs in the teacher's feedback to a student's response to the teacher's elicitation in L2 for a L1 explanation of the word 'fruitful'. This is a typical IRF pattern of interaction between teacher and students. The student's response is '成果'which literally means 'ripened fruits', however it often means 'good outcome of an effort'. This student answers '成果' is nearly an equivalent to 'fruitful' semantically; however, there is a slight grammatical difference as '成果' is a noun and 'fruitful' is an adjective. In Cindy's feedback to this she provides a recast in L1 by offering two L1 adjectives: 硕果累累的 and 有成果的 to match the

adjective 'fruitful'. The Chinese character '的' is an inflection for making adjectives. In addition, apparently there is some semantic equivalence for 'fruitful' in both languages. This connection between the two languages and the two words appears to trigger some confusion in one student:

> When she was speaking English and translating her English into Chinese…I felt suddenly slightly confused…. I wondered what the word meant….if she had spoken a Chinese word that was not linked in meaning to the preceding English word, I would not have been confused [……]. When. For example, she said '今天早上[tr: this morning]'in Chinese in a flow of words and I thought about '今天早上[tr: this morning].
>
> (Chen Qi).

What appears to be happening here is that because there is a cross-over in form-meaning connections in both languages between two related words, the amount of processing that a learner has to do is in fact increased rather than decreased. Whether this leads to better opportunities for recall is not possible to discern but there is a suggestion that the strategic reaction is more intense and may have afforded deeper processing opportunities than an L2 definition (e.g. 'producing good or helpful results' – New Oxford Dictionary of English).

Example 407 (intra-sentential; med L2-L1; target item 'values'; TESLK = item 'known')

…You may find that your values, your prejudices are challenged, values here means in Chinese 价值观,不是价值, [tr: values(one's judgment of what is

important in life), not value (the quantitative worth of material objects)]normally we know what's the value of this product…

In this extract, the teacher does not attempt a comprehension check but rather pre-empts possible hypothesis generation and provides a Chinese equivalent (twice) of the word 'value' followed by an immediate contextualization. This codeswitch seems also to involve a certain degree of teacher's conscious effort to help with students' vocabulary as suggested by the TESLK data. In other words, given that the English word 'value' has other meanings (the quantitative worth of material objects), there is an attempt by the teacher to demonstrate that it also has a figurative meaning. This dual meaning is represented by the two different L1 equivalents in Chinese. One student's strategic reaction is as follows:

> When she spoke (in English), I was thinking of the meaning of 'value', then the teacher said "价值观", then, I placed the meaning into the sentence and had a go at it (quietly to myself).
>
> (Gu xin).

It is unclear which meaning of 'value' Gu Xin was thinking of before the codeswitch. Perhaps the more common value of material objects. The interesting result of the switch is that she then attempts to process the word for recall by placing the word in a contextualizing sentence, an important vocabulary strategy in the literature. Whether this is a sentence of her own or the sentence provided by the teacher (i.e. 'Your values are challenged'), is not

clear. What is clear, however, is that the reaction to a teacher codeswitch is not a passive one. There is some very important cognitive processing and strategic decision-making occurring.

Example 411 (intra-sentential; medium: L2-L1; target item 'adolescence'; TESLK= item 'not known')

…For instance, adolescence is the transition between adulthood and childhood, childhood and adulthood….Do you know what adolescence means? adolescence?...青少年, 青春期, [tr:teenager, adolescence]…

In this extract the teacher was discussing the various stages in a person's life. She pre-emptively decided that the students have not understood the word 'adolescence.' Later in retrospect she also believed that students did know the word (TESLK data). Therefore, she carried out an L2 comprehension check in line 2 ('Do you know what….') followed by an elicit in line 3 ('adolescence?'). This is then almost immediately followed by a switch to Chinese where the information provided was more than a one-to-one lexical match. One student's strategic reaction was as follows:

When she mentioned 'adolescence'….it was new to me….at the beginning I felt confused and guessed it was 'puberty' when I heard childhood and adulthood….my guess was confirmed by her Chinese.

(Feng Tao).

What appeared to be happening in this reaction was firstly the respondent made an attempt to convert the L2 word into a semantic framework and then an attempt at an L1 equivalent guess which was close to the L2 (although not quite). The teacher's switch to L1 provided confirmatory evidence that the guess was on the right lines as well as providing a better Chinese equivalent. In this episode it was the teacher who made the learner selectively attend to a lexical item, encouraging cognitive processing through hypothesis generation, and then provided (at least so it seems) helpful additional information about the item.

Example 715 (intra-sentential; med L2-L1; target item 'ordeal'; TESLK= item 'not known')

C: … whether for a college or for a job, most people face this ordeal (referring to an interview experience). Ordeal means a painful, or a horrific experience, ok? Ordeal, 痛苦的和可怕的经历 [tr: a painful or horrific experience], However, people who prepare for interview…

According to TESLK data, this codeswitch was probably planned for such a less frequent word 'ordeal' and it followed two other input modification devices, i.e. repetition and paraphrase. This triggered the following comment:

> I could understand her English explanation. I felt more sure about it when I heard her Chinese explanation.
>
> (Li Meizhu).

Though Li Meizhu, as she reveals, could infer the meaning of 'ordeal' by its paraphrase, she still prefers L1 to provide confirmatory evidence for her inference. Note, however that the codeswitching is not an exact one to one equivalent for the word 'ordeal' as probably an exact equivalent is unavailable. It is a translation of the L2 paraphrase for 'ordeal'.

Example 716 (inter-sentential; Med L2-L1; target item 'loud'; TESLK= item 'probably known')

…Especially the author stresses that the colour of suits should not be too loud 注意这个地方,我们在翻译的**时**候,或者在说英语的**时**候,我们说**这**个颜色非常刺眼[tr: pay attention to this, when we translate or speak, we say this colour is too flashy]. In English we should say 'loud'…

The target word 'loud' is an idiomatic term used for describing the colour rather than the sound here. The codeswitch made by Cindy is probably planned because Cindy said in the TESLK data that students probably do not know the word before the start of the course. This lengthy codeswitch consists of L1 utterances Cindy uses to draw students' attention on the term and also an equivalent to the term. Du Ming' strategic reaction is as follows:

> The same (the same reaction as in codeswitching Example 714) as before. I paid even more attention to her Chinese.
>
> (Du Ming)

Du Ming reported that he was engaged in the processing of teacher's input both in L2 and L1. As the target lexical phrase 'loud colour' may be quite new to learners, the provision of an equivalent 'flashy' in Chinese to the 'loud' is not only much needed, but also offers opportunity for deep processing as evident in Du's recall.

Example 717 (inter-sentential; message-oriented; instruction)

…And prepare for our coming exam on Thursday morning, right? Thursday morning, 啊,我说一下这个[tr: oh let me say something], what? No, no, no, don't use a computer…

This codeswitch occurs when Cindy was about to introduce to students important information about attending the coming exam. This quite short codeswitch may help to highlight the importance of the coming information. However, its occurrence in the middle of L2 speech provoked one respondent to feel the following:

> I had a sudden and dramatic sinking feeling…. because the effort spent listening to English was huge and tiring, especially at that time, in contrast to less English at senior secondary school. At that time, I'd got to listen to the teacher attentively to catch her drift. I felt a sudden relaxing of concentration when she switched to Chinese.
>
> (Li Meizhu).

This particular codeswitch is interesting, as it may have been an unplanned, slip of the tongue by Cindy, for if it were discarded it would not make much difference to the discourse. This codeswitch may be perceived both positively

and negatively by the students in terms of its effect on the processing of the input. On the positive side, codeswitching may be helping to reduce the cognitive load of a long engagement with the L2 input. It may have the social cultural benefits as well, for example, reducing students' anxiety. On the negative side, those few out-of-the-blue L1 words may have disturbed the ongoing processing of L2 for some students as indicted by the respondent above.

EXAMPLE 1046 (inter-sentential; medium-oriented; Translation L2 to L1)

… Now, suppose I ask you to think in English,**我现在就让你做什么事情都用英文思维**[tr: now I will ask you to think in English whatever you do], you can hardly go on…

The L2 utterance 'I ask you to think in English' and the follow-up L1 equivalent are unique as they not only convey the meaning but also perform an illocutionary act, which involves probably higher order cognitive activities. Perhaps in order to make his sophisticated instruction clearly understood, John provides an exact equivalent sentence in L1 immediately following the L2 instruction to engage students into thinking in English (L2). This codeswitch has prompted one respondent to make the following comments:

> … Then I recalled the English when he was speaking Chinese; the preceding English sentence. I can still remember it. Then I linked the Chinese and English to see how the translation of it had been done.

(Li Ying).

What Li Ying has described is her cognitive effort to link both L1 and L2 utterances to achieve clear comprehension. The availability of codeswitching made it possible for her to notice the differences between the L2 and L1, which may have helped her to process the input at a deeper level. This is also evident in another respondent's comments in reaction to the same codeswitching episode above.

> I would be thinking about what the sentence meant, and then I would understand it as soon as the Chinese was spoken.
>
> (Guo Yong)

Example 1138 (intra-sentential; medium-oriented; translation L2 to L1)

...He knows how to influence and affect the audience by his words, his gestures, and his appearance, 表情啊,语言啊 [tr: appearance, language], something like that, so we say…

John is talking about how one is communicating with the audience by both verbal and non-verbal communication. His codeswitching here seems less focused on form than an emphasis on meaning as in his utterance 'He knows how to influence and affect the audience by his words, his gestures, and his appearance', there is nothing new to the students. One respondent made the following reaction:

> I don't know. Well, consciously or unconsciously, I just feel that when he's speaking English, I tend to focus on the meaning of his English.

> However, when he switches to Chinese, I can understand it all as well as make quite a lot of associations in Chinese.
>
> (Zheng Mei).

This reaction indicates that the respondent is processing the L2 by making an inference before the occurrence of any teacher's codeswitching. As he reported, the codeswitch (exactly like the one above) tend to activate his schematic knowledge, which appears to be strongly linked with a particular kind of codeswitching which focuses more on the topic or message rather than focusing on form.

Example 1143 (inter-sentential; message-oriented; information-giving)

…We have to keep on with rationality.大家注意, 西方人特**别**注重reasoning, reasoning, 带来的就是 rationality [tr: attention please, westerners are keen on reasoning, reasoning, leads to rationality], so what is rationality in Chinese?

Before John's elicitation for the definition of 'rationality' in Chinese, he introduced idea of 'reasoning'. Then he provided two short L1 utterances bridging the idea of 'reasoning' and 'rationality' together. Faced with this codeswitching, one respondent made the following remark:

> When he was speaking English, it probably took me a second to translate his English into my Chinese mother tongue. Then, when he was speaking Chinese, I didn't need to translate at all, and I didn't feel anything in particular, either.

(Lu Chuan).

Lu Chuan reported his strategy of L2 and L1 connection when processing the L2 input. When the codeswitch occurred, he seems to have accommodated it automatically without much cognitive effort involved.

Example 1239 (intra-sentential; medium-oriented; med: elicit in L1)

…So they (writer and orator) resemble whom? Individuals and masses. How do you say 分别的？ [tr: respectively]? …Separate? Very useful word…

When John was helping the students to understand the idea of 'herd poisoning' he drew on the difference in the reaction by audience to the message from a writer and an orator respectively; then he incidentally saw the need to check if the word 'respectively' was grasped by the student or not. This is done by a three character long intra-sentential codeswitch '分别的' [tr: respectively]? One female respondent's comments are as follows:

> I was thinking about different possibilities of what this vocabulary could be, just thinking. I thought the word 分别的 [tr: respectively]) should start with the letter 'D' or something. In the end, I didn't come up with anything. […]. Later, when he said 'respectively', I stopped thinking.

(Sun Fengxia).

In reaction to the codeswitch, Sun Fengxia revealed that her attention was focused upon the cognitive action involved in searching for the word that

John elicited in 'How do you say 分别的 [tr: respectively]?" Her attempt to retrieve the word from her long term memory did not succeed and this led to her desire for teacher's codeswitching. A similar strategic reaction is reported by Hu Guoqiang, one male respondent.

> I was thinking about his question [...] Right. Then I was testing my vocabulary, searching my lexicon to see if it had got that word or not; just thinking about this.
>
> (Hu Guoqiang).

According to both respondents it may be interesting to speculate that this kind of codeswitching, i.e. medium elicit in L1, is more likely to produce opportunities to engage learners in deep processing, namely, to provide them with opportunities to access their long-term lexicon. It may also help teachers and learners increase the content, for example, to revise the vocabulary in this case. This use of codeswitching may provide qualitative insight into the assertion that codeswitching contributes to the increase of learning opportunities. This will be taken up in Chapter Eight later.

Example 1254 (inter-sentential; medium-oriented; translation L2 to L1)

...Because rationality stresses intelligence, the ability to reason.**理性的东西更强**调**智慧** [tr: rationality prioritises intelligence]. So they value rationality and are interested in facts...

John was talking about how an intellectual thinks. For fear of students losing track of the meaning he, from time to time in this lesson, inserted some short

L1 utterances in order to interpret those difficult utterances in L2. Apparently the challenging utterance above had elicited increased attention from Hu, one male respondent.

> At that time, I was listening to his English more carefully before the switch. I wanted to know what the teacher was trying to say. I could only understand his English by translating it into Chinese.
>
> (Hu Guoqiang).

Hu, in the above comments, reveals that he directed more attention to the processing of the L2 input immediately before the occurrence of codeswitching. It is possible that the ideas in L2 utterances before the codeswitch in this case were rather new to students, and that the subsequent codeswitch might have provided clues, meanings and L2 and L1 connection strategies. Sun's strategic reaction to this codeswitch is as follows:

> At that time, I was probably thinking of matching the Chinese with the English; making a mental note of it, the meaning.
>
> (Sun Fengxia).

The provision of the meaning via this codeswitch seems to provide an opportunity for Sun to process the L2 input more deeply by linking the L2 with the L1 lexically, semantically and syntactically, then, commit the processed information into long term memory.

Example 1360 (intra-sentential; med L2-L1; target item 'pollutant'; TESLK= item 'probably known')

…Even each individual is a pollutant, pollutant, 污染体 [tr: pollutant], (writes it on the board). Yes, pollutant…

This codeswitch was made deliberately for the target term 'pollutant,' which John perceived was new to the students and worth the effort to provide an L1 equivalent. TESLK data indicates that John believes that the students probably know this word. It further suggests that this codeswitch is not likely to be random and it appears that John has a reason for placing emphasis on the term 'pollutant'. Faced with such an opportunity to expand the vocabulary, one respondent provides some interesting comments with regard to his strategic reaction towards this codeswitch and the way how his cognition functioned:

> My first reaction was, prompted by the codeswitch, I would first think about the meaning in Chinese, then the meaning in English. For example, (self talking) pollutant, pollutant. First, I would think about all kinds of pollutants in Chinese, then I realised that, oh, the Chinese 污染体 [tr: pollutant] is the word 'pollutant' (in English).
>
> (Kang Wenhao).

He first describes that he was keen to work out all the possible things in L1 which can be categorised as 'pollutant'. In other words, the priority of his processing was to focus on the meaning by establishing the semantic basis in L1. Once the semantic basis has been built, then, he focuses on form by

linking L1 with L2. In other words, he started processing the word on a superficial level, i.e. at a morpho-syntactic or pragmatic level.

Example 1566 (intra-sentential; med L2-L1; target item 'trauma'; TESLK=item 'not known')

...Because he was hurt. The scar, the trauma 创伤 [tr: trauma], was left by the person whom he loved so much. So that is why sometimes love and hatred are just one step apart....

This short codeswitch was made probably based on John's estimation of the problem students might experience in understanding this low frequency word in his message dominated speech discourse. One respondent made the following reaction:

> I had been concentrating on this word actually [...]I understood 'scar' immediately, but the other I didn't understand at all. I was wondering what it meant, then John said the trauma, then 创伤 [tr: trauma], but I still couldn't figure out its spelling (laugh). Then I decided to check it after class.
>
> (Chen Lei).

In this extract, Chen Lei made it clear that she did not know the word 'trauma' and this forced her to process the term with increased attention. She still could not figure out the meaning of the word until John provided an L1 equivalent. She then made a decision to do a follow-up processing for the spelling of the word.

Summary of 7.2.2

As we see here, these codeswitches by teachers tend to provide richer and optimal opportunities for learners to process the input. However, this may involve the demand for quite a degree of teacher decision making behind codeswitching.

It may be assumed that the strategic reactions described by respondents in reaction to these codeswitches provide evidence to establish that:

1) Codeswitching provide evidence to confirm students' hypothesis testing;

2) Codeswitching provide opportunities of deep processing by contextualisation;

3) Codeswitching provide information used in additional processing.

These cognitive functions of codeswitching reported will be looked at again in Chapter Eight.

7.2.3 Topic intensification reaction through schema activation

Whilst in 7.2.2 reaction centres on the theme of reducing selective attention via L1 and L2 linking strategies when processing those less frequent lexical items, in this section the reaction will be mainly concerned with those topic intensification reaction through the activation of schematic knowledge. Table

7.5 shows that this reaction seems to be exclusively related to postgraduate respondents from John's classes except for one undergraduate respondent from Cindy's class. In addition, predominantly message-oriented codeswitching are associated with such a reaction, though some medium-oriented codeswitching are also related to such a reaction.

Table 7.5: Profile of those codeswitching which produce topic intensification through schema activation

codeswitching episode	Orientation	Function	Teacher (Cindy or John)	Respondents' Gender
Example 617	Message-oriented	Instruction	Cindy	M
Example 909	Message-oriented	Information giving	John	F; M
Example 913	Message-oriented	Information giving	John	F
Example 944	Message-oriented	Information giving	John	M
Example 945	Message-oriented	Information giving	John	F; M
Example 1042	Message-oriented	Information giving	John	F; M
Example 1104	Medium-oriented	Translation L1 to L2	John	F; M
Example 1138	Medium-oriented	Translation L2 to L1	John	F
Example 1143	Message-oriented	Information giving	John	F
Example 1361	Medium-oriented	Translation L2 to L1	John	F; M
Example 1362	Medium-oriented	Translation L2 to L1	John	M
Example 1436	Medium-oriented	Elicit in L1	John	F
Example 1439	Message-oriented	Information-giving	John	M
Example 1533	Message-oriented	Information-giving	John	F; M
Example 1540	Message-oriented	Information-giving	John	F
Example 1643	Medium - oriented	Elicit in L1	John	M
Example 1671	Message-oriented	Information giving	John	M

Now the only example from one undergraduate respondent is presented first.

Example 617 (message-oriented; instruction)

OK, 我请一个同学来翻译一句话 [tr: let me ask a student to translate one sentence], ok. Translate my sentence, (pointing to one student)

In this codeswitching episode, a typical instruction has been made in the form of L1, followed by a repetition in L2. One male respondent made the following remark:

> I wondered why the teacher didn't ask me to answer the question [...] I mean it, because it should have been my turn, as she had asked the student in front of me and I assumed the next one would be me. Unexpectedly, she turned away to someone else.
>
> (Tang Chao).

This remark is again not a description of how he processes the codeswitch but relates to the message or meaning contained in the Instruction realised by the L1 codeswitch. This deviance may be partly be due to the nature of automation in accommodating the codeswitches as in 7.2.1.

Examples of reactions from John's group are presented below:

Example 945 (message-oriented; information-giving)

...And you are understandably impatient to succeed quicker than you are. You don't want to wait that long.仍然是1998年的时候,我的居住面积是这个(write 33 square metre on the board) 平方米,建筑面积 [tr: still in 1998 the size of my flat is (write 33 square metre on the board)square metre, the overall size] (students burst into laughter). That's true...

John is sharing his own life with the class in L1. This is not uncommon in his lessons. His remark about his family's poor housing condition triggered the following reaction from one respondent:

> I was thinking about his (the teacher's) description of the housing conditions he lived in 1998, imagining how bad it would have been …
>
> (Liu Dandan).

Liu Dandan reported that when the codeswitch came, he thought about the message contained in the L1, i.e. John's housing. He did not comment on the cognitive processes involved in his noticing the codeswitch. One plausible reason for this is that he processed codeswitching automatically, as the codeswitch was not as salient as those codeswitches focusing on lexical items we looked at earlier and semantically blended with the surrounding discourse quite well. Reaction from another respondent is reported below:

> As I have got a couple of years' job experience, I'm able to say that his limited monthly income of 800 Yuan did not strike a chord with me. But I also thought at that time the whole country was more or less the same…
>
> (Yang Yang).

Like Liu Dandan, Yang Yang had not been able to provide any observation of his cognitive processes. Instead, he made numerous message-related comments on the issue, raised by John in the lesson, of the welfare of university lecturers.

Example 1042 (message-oriented; information-giving)

……and they use paper rather than language to think, 对不对? 现在就让你画一个猫,你不能说你不在想猫,这有个须什么的[tr: right. Now you're asked to draw a cat. Can you say you don't picture a cat in your mind, for example, the whisker of the cat?]. What's in your mind is a picture of a cat or a tiger …

> I thought about a cat. […]He, he says…what he basically talked about was that some people use words to think and others use pictures to think and are maybe slightly smarter. So I think most people use both words and pictures to think.

(Li Ying).

It appears that Li Ying recalled nothing but the interpretation of the discussion topic and the way he had reacted to such a topic. He, again, appeared to accommodate the L1 automatically.

All the above codeswitching episodes illustrated are message-oriented. However, there are also some medium-oriented codeswitching episodes which trigger such topic intensification reactions. Here are some examples.

Example 1104 (medium; translation L1 to L2)

...So you know in Chinese culture that we first talk about the nation as a whole, right, then we talk about 集体[tr: collective], collectives, (some students read aloud the word 'collective' spontaneously), then we talk about individuals, right?...

This codeswitch is only two Chinese character long which occurs in John's speech on the topic of 'individuals and masses'. One respondent's recall is as follows:

> I was thinking about individuals, families, societies and communities; thinking about what one individual can do for the community and also comparing it with what the collectives can do for the community...
>
> (Zheng Mei).

It is interesting to note that this medium-oriented codeswitching does not engage the respondent in the process of selectively attending the term 'collective' like in codeswitching with the function of 'translation L2 and L1.' The reason for this can be complex. One reason may be related to the nature of codeswitching as in this case, L1 codeswitch comes first in the stream of speech as if it provides new information, followed by an L2 equivalent. The codeswitch does provide a wealth of associated information in L1 that the word in L2 does not have in the L2 cultures.

Example 1361(medium-oriented; translation L2 to L1)

…Chemicals, then we have chemical weapons, 生物制品, then 生化武器 [tr: biological products, then biological products, then, biological weapons]. Right? So they are all man-made…

This codeswitch was an easier one to understand, and may even be regarded as superfluous. However, words such as 'chemicals', 'chemical weapons' are quite powerful terms that can help people to broaden and deepen their thinking. One respondent made the following remark:

> The Iraq war was my first reaction, then the two sides of one thing, and then dialectics…
>
> (Kang Wenhao).

This is a clear manifestation of codeswitching evoking associations.

Example 1436 (medium-oriented; medium: elicit in L1)

…then they have two kinds of engineers; one is a mechanical engineer, and the other is 电气化工程师 [tr: electrical engineer], How do you say it?...

This codeswitch occurs in John's digression to the topic of his experience of repairing a car. The occurrence of such a L1 codeswitch could be John's unplanned intention to provide students with opportunities to practice their vocabulary.

> The engineer. I thought it normal for him to explain it in this way because electrical and mechanical engineers are quite different. But I don't think his examples here were so closely related to the text, if we focus on the text itself.
>
> (Song Ling).

The three medium-oriented codeswitching episodes may be based on less clearly defined reasons like other codeswitching episodes. They may be the products of easy options or egocentric digressions by the teacher for his own affective reasons. The follow-up TESLK data appears to provide some evidence for this observation. However, it is little known whether this kind of codeswitching is more associated with such kind of topic intensification reaction.

Summary of 7.2.3

Such a reaction demonstrated by those respondents, predominantly postgraduate students, confirms the multiple and mixed functions of codeswitching. This is especially evident in reaction to Johns' message-oriented codeswitching from postgraduate students. Do teachers' codeswitching style and lesson content influence the way they codeswitch and consequently result in such a reaction from students? It may be worth speculating in this regard. For example, Cindy's lesson is far less challenging than John's postgraduate lessons both in terms of linguistic complexity and lesson content. As we mentioned earlier, abstract and difficult content permeates John's lessons.

The activation of students' schematic knowledge is acknowledged as an effective strategy in students' learning. However, to what extent this activation of students' schematic knowledge in students' mother tongue is a hindrance or facilitation to students learning is still controversial and empirical evidence appears lacking. Apart from the potential setbacks such as making the returning to the L2 discourse difficult, it can not be neglected that as this topic intensification keeps students engaged in active mental activities that otherwise will be difficult in a L2 exclusive environment. This may help both teachers and learners to keep building such a complicated thinking exchange with the help of L1 in order to carry on the classroom discourse smoothly and thus provide a conducive environment for the acquisition of L2 to take place without the expense of sacrificing students' treacherous 'exposure' time to target language. This theme will be discussed further in Chapter Eight.

7.2.4 Social cultural reaction

There are only two reported instances of social cultural reactions in the corpus. One is from an undergraduate student group reacting to a medium-oriented codeswitching and another from postgraduate students group reacting to a message-oriented codeswitching. Extracts of reaction are cited below.

Example 411 (medium-oriented; medium: elicit in L1)

C: …For instance, adolescence is the transition between adulthood and childhood, childhood and adulthood. Do you know what adolescence means? Adolescence?

SS: (silent)

C: 这个单词大家肯定是学过的啊 [tr: I'm sure that you have learnt this word before] (Write 'adolescence' on the blackboard) 在童年和成年之间,这个过渡期是什么? [tr: what is the period of transition between childhood and adulthood?]

SS: 青少年 [tr: teenager],

C: Yeah, 青少年 ,青春期, [tr: teenager, adolescence] adolescence, adolescence, adolescence …

In this extract the teacher is discussing the various stages in a person's life. She pre-emptively decides that the students have not understood the word 'adolescence' and carries out an L2 comprehension check in line 2 ('Do you know what….') followed by an elicit in line 3 ('adolescence?'). This is then almost immediately followed by a switch to Chinese where the information provided is more than a one-to-one lexical match. One respondent's strategic reaction is described as follows:

> The teacher said something in English, (turning to the interviewer for help). How do you say 过渡时期 ?(Researcher replies: Transition.)Transition, between childhood and adulthood. Then she said later, this is adolescence. (She points to the screen of the VCR). It's on the blackboard. Look at the screen. I was burying my head low and using my ears to follow what the teacher was saying. Then the teacher said 'adolescence'. What? I sat upright.

(Gu Xin).

Gu Xin's recollection is unique in that she provides a vivid description of her physical reaction to the input and the codeswitch that is imminent. i.e. she demonstrated her strategy of directing her attention to the target input by raising her head and sit upright.

Example 1037 (message-oriented; instruction)

…Now I ask you to do a planning (of a trip route) 那么这里实际上给出了一个例子 [tr: well, there is already an example of that here (the textbook)]. How do we illustrate that we have to use words, depend on words to think?

This codeswitch episode is embedded in such a discourse that is related to John's effort to communicate to his students' ideas on how to use words or language to think. The L1 codeswitch sentence serves as an instruction to bring students to focus on one contextualisation. One respondent makes such a reaction: *I had a look at the book.*

Again this respondent reacted to the codeswitch physically by glancing at the book, probably with a hope to finding the answer to his teacher's question.

Summary of 7.2.4

Such a social cultural reaction, albeit limited in the corpus, appears quite prominent. Although this observable reaction on the part of students may be

indeed quite rare. However it could serve as important signals that the teacher can make the most of.

Chapter Summary

In this chapter a portrayal of both attitudinal reaction and strategic reactions on the part of the learners have been provided. With regard to attitudes toward teachers' codeswitching, both positive and negative reactions have been identified in the corpus of data. To summarise, the majority of respondents in both teacher groups feel positive about codeswitching, although a number of negative reactions are also identified, particularly associated with certain type of codeswitching. In other words, whether one codeswitching is preferred or not seems related to the nature of codeswitching. Respondents seem quite clear about the rationale behind the use of codeswitching, and they favour one kind of codeswitching over another. Tentatively, medium-oriented codeswitching appears to be more popular than message-oriented codeswitching, with the former triggering a diversity of strategic reactions. Multiple and contradictory feelings towards codeswitching are also detected in some respondents. This acceptance and rejection of teachers' codeswitching seem not related to gender. Nor does it seem to be related to the teacher group. Individual differences may be a principled factor in accounting for the differences in reaction. Furthermore, the result of a two case group comparison seem to support the observation that teachers' teaching methodology and style may be related to the differences in respondents' attitudinal reaction. However, this is apparently

not causally linked. It is evident from the corpus of data that there is no mention of external influence from departmental/school policy on the use of L1 and L2. What is strikingly similar in all of the students' comments is their tendency to relate their current attitudes and beliefs to their previous learning experience. Their present reactions tend to have been shaped by their previous experience in the secondary or their undergraduate contexts.

With regard to students' strategic reaction, evidence suggests that learners may be equipped with various mechanisms when processing input containing different types of codeswitching, such as message-oriented codeswitching and medium-oriented codeswitching are being processed and reacted differently. Greater use of strategies by students seems to cluster around the processing of less frequent vocabulary. To recap, normally, respondents tend to have the following strategic reactions:

1) They tend to accommodate certain type of codeswitching naturally such as message-oriented codeswitching with the function of Instruction.

2) They tend to execute the L2 and L1 connection strategies when processing those target lexical items.

3) They also tend to activate their schematic knowledge when processing certain types of codeswitching.

4) They also react to codeswitching in social-cultural specific ways.

These findings are not in any way conclusive, and will be discussed in Chapter Eight.

Chapter Eight: Discussions

Introduction

The central goal of this study was two-fold. One was to identify the pattern of codeswitching behaviour of two university EFL teachers in Mainland China, and the other goal was to explore the reaction that their students had toward their codeswitching behaviour. In this chapter, the results presented in the previous three chapters will be considered together and discussed in the context of literature presented in Chapter Two. The discussion is structured according to the themes related to the specific research questions (see 3.2.1 in Chapter Three).

8.1 Patterns of codeswitching in L2 classrooms

It is clear from the literature review in Chapter Two that previous studies which measured the pattern of teacher codeswitching tended to be based on CS corpus which contained fewer lessons from each teacher than the present study. Such a sizable corpus in the present study can offer the in-depth analysis of classroom codeswitching pattern that was not achievable in those previous studies (e.g. Wragg 1970; Guthrie 1987; Duff and Polio 1990/1994; Neil 1997; Macaro1997; Turnbull 2000; Macaro 2001; Macaro and Mutton 2002; Jinlan Tang 2002; Rolin-Ianziti and Brownlie 2002; Liu et al. 2004; Kim and Elder 2005).

This undertaking was actually recommended by Duff and Polio (1990) more than a decade ago when they suggested "a more detailed qualitative study of

one or more teachers over a longer period of time" (1994:324). The contribution of the present study is to the depth of analysis achieved over a very large corpus, probably the largest classroom CS to date. The findings which correspond to each of the following themes will be discussed respectively here.

The first theme is concerned with finding out just how much codeswitching is occurring. This is important as one sub-question under the first research question (Research Question One: What patterns of codeswitching are found in a purposive sample of teachers of EFL in two universities in mainland China?) sought to identify the amount of L1/L2 distribution by these two teachers. Despite the fact that direct comparison of the exact amount of L1 and L2 use with those in the literature may appear less meaningful due to the different analysis frameworks employed, this study is consistent with the literature in the sense that they all identified a considerable range of L1 and L2 use across programmes, teachers and lessons (Chaudron 1988, Macaro 2000). The finding of such an inter-lesson variance in terms of teacher L1 and L2 use, as was stated earlier, could fill the gap left by the previous studies which collected a small number of lessons, e.g. one lesson or two from a group of teachers, thus producing significant variance in the pattern of codeswitching across teachers.

The primary interest in measuring the amount of codeswitching in the FL classroom, as evident in the literature review, arises from the exposure argument, which considers that maximizing time in L2 is essential in

providing a learning environment in the L2 classroom which is most conducive to learning. In other words, the less codeswitching, the better the linguistic environment (e.g. Brooks 1990; Ellis 1999; Gass 1997; Johnson 1995; Wong-fillmore 1985). In addition to the somewhat dogmatic assertion of L2 exclusivity, the investigations of classroom codeswitching around the world have identified that there is no consensus as to what the ratio of L1 to L2 should be. This so far has led researchers to feel unable or hesitant to make the pedagogical suggestions about the desired proportions of L1 and L2 use, and may have led to the above assertion. By the same token, there are also studies of codeswitching which do not intend to address and report such use. They assume that either a very small amount of L1 or no L1 should be used in L2 classrooms, which mirrors the two different theoretical stances which researchers tend to take as examined in the literature review. Therefore, some researchers have begun to shift their attention from merely observing teacher codeswitching to investigating the possible effects and consequences of teacher codeswitching on learners and their learning (Macaro 2001; Levine 2003).

In light of the above, the present study has made an initial attempt in such a direction by exploring how learners strategically react to teachers' codeswitching. This provides indirect evidence for the effects and consequences of teacher codeswitching on learning. Despite its contribution to uncovering learners' cognitive processes reacting to teacher codeswitching, the present study is clearly unable to empirically test the effectiveness of teacher codeswitching on students' learning outcomes. Clearly the current

study is unable to provide direct evidence of the effects of codeswitching on acquisition. This can only be measured by an experimental design involving pre-treatment and post-treatment tests of proficiency. However, the variability of teacher codeswitching both between lessons and within lessons makes such a design very difficult to create.

The second theme is related to codeswitching length. The length of codeswitching is a gradually emerging theme in this study. As with the first theme, codeswitching length has never previously been explored empirically. In the present study, it has been found that: 1) medium-oriented codeswitching episodes are generally shorter than message-oriented codeswitching episodes. 2) The length of teacher codeswitching varies little within medium-oriented codeswitching, while it varies considerably within message-oriented codeswitching. The length of the codeswitch, the study has shown, is important for at least two reasons. Firstly, an over-long switch risks losing the essential communicative features of classroom instruction. Secondly, it appears that long switches make the returning to L2 difficult. The above length-related findings appear to provide some initial evidence as to the question of the optimal 'parameter of L2 and L1 use' (Macaro 2001b: 545) in that certain kinds of teacher codeswitching may be preferred over other kinds because they are shorter, and facilitate maintenance of the L2 as the matrix language (Myers-Scotton 1993).

Nevertheless, evidence about codeswitching length so far are still tentative and inconclusive. We know little about whether learners prefer longer

codeswitching or shorter codeswitching, and the evidence of their respective effects in terms of ultimate acquisition or improvement in proficiency seems lacking. As we only measured the length of codeswitching via the counting of Chinese characters, we have not been able to measure how quickly one codeswitch can be delivered in terms of time. There may be cases in which the codeswitching is long with respect to Chinese character, however, in terms of time, as Macaro (2001b) observes, they can be very brief in that L1 communicative content can be delivered quickly and it may not be using up valuable time. In general, it seems to be agreed that there is a threshold level of use for L1 in the L2 classroom (ibid). Within this threshold level, it may be meaningful to examine the effect of codeswitching length. This, however, has to be pursued in further studies.

The third theme pertains to the measuring of the effect of teacher codeswitching on general classroom interaction. In other words, it is important to consider whether teacher's use of L1 has led to increase or reduction in student L1/L2 use, as it could probably provide evidence for the argument that L1, if used prudently, can be beneficial to foreign language learning and acquisition. The result that no correlations are found between teacher L1 use and student L1 use at the whole corpus level in the present study, accords with those of Macaro (1998a; 2001b). On the basis of this, he argues that "when codeswitching was kept at a level below about 10 % there was no significant increase in the learner's use of L1 in the whole group interaction" (Macaro 2005:71). Furthermore, Macaro's assertion (ibid) that

some expert use of codeswitching may actually increase the use of students' L2 is also empirically supported in this study.

However, it should be made clear that the interpretation of the correlational results should not be employed to encourage unbridled use of L1, as it is important always to remember that there are both advantages and disadvantages associated with L1 use by teachers. On the one hand, the teachers' use of L1 might increase the use of L2 by students, by providing them with opportunities to translate from L1 to L2. On the other hand, the greater use of L1 by teachers might have potentially negative effects on the amount of L2 used by students. This is especially so if the use of L1 has gone beyond the threshold level discussed above.

Theme four concerns the codeswitching functions identified in the present study compared with those in the literature (Antón and DiCamilla 1998; Mitchell 1988; Duff and Polio 1994; Canagarajah 1995; Hancock 1997; Tarone and Swain 1995; Macaro 2001; Kaneko 1991; Rolin-Iantzi 2002; Tang 2002; Ho and Zhao 2002 Liu et al. 2004). As validated in the present study, the functional model can work as a departure point to explore the principles and guidelines on the optimality of teacher code choices. The advantage of identifying RL1 via L2 boundaries is absolutely clear and consistent provided the transcript is accurate. Unclear L2 boundaries are very rare. The other advantage is that it does give an indication of when threshold is about to be reached. The model of functional RL1s, derived from the data, "has held up well when analysing RL1s and has provided the trigger and the

coherence for the discourse analysis" (Macaro 1998a: 208). The message and medium distinction for RL1s has also held up well, although there are a number of instances in which it was found to overlap. This problem needs to be addressed by future research.

Nearly all the functions which are categorised in the model of functional use of codeswitching (Macaro1998a) are found in the present study, although to varying degrees. This lends empirical support to the capacity for this model to be applied in different programmes and cultural contexts. In other words, the data from this study confirm Macaro's model of the functional use of codeswitching as a robust research framework for future researchers.

One of the major findings related to the functions of teacher codeswitching is that, overall, there is dual focus of codeswitching both on language as well as on content. This is consistent with the literature. In the present study, the foci on medium and message are balanced. In other words, the present study tends to have an equal emphasis on both the formal aspect of teaching as well as the communication of messages in the L2 classroom. This is consistent with another study conducted in Mainland China with classrooms for university major students (Tang 2002). However, this finding does not accord with that of Macaro (1998a; 2001b) in that his study features more message-related codeswitching than medium-related codeswitching. For example, instructions and reprimands are the most frequent and longest time out in L1 in Macaro's study (1998a; 2001b). The grammar explanations are also identified in the present study, although, not as predominantly as in studies such as Mitchell (1988); Duff and Polio (1990/1994). This is probably not surprising as these

studies are conducted in totally different programme contexts with different levels of learners. There may also be differences in these two studies in terms of the extent to which the pedagogy is planned. Duff and Polio (1994) discuss at length the use of codeswitching to teach grammar. However, in the present study less use of codeswitching is found in this respect. In sum, the functions of codeswitching vary considerable from context to context.

In this study, Medium-oriented codeswitches are very brief in both teachers, and they appear to be based on clearly-defined reasons more than message-oriented codeswitching do. This supports Macaro's observation (Macaro1998a; 2001b) that teacher use of L1 does not necessarily engage students in L1 interaction. Furthermore, teacher use of L1 can be employed to "repair L2 discourse thereby enabling opportunities for PL2 to arise" (Macaro 1998a: 210).

The predominant use of medium-oriented codeswitching is made for the lexical aspect of teaching in these two teachers' classrooms. This accords with studies such as Kaneko 1991; Rolin-Iantzi 2002; Tang 2002; Liu et al. 2004, which observe that teachers alternate languages to provide help with less frequently occurring vocabulary. For example, teachers employ codeswitching to "assist in storage, processing and retrieval and to encourage oral output" (Macaro 2001b: 537-544). Codeswitching from L2 to L1, as evident in the present and other studies, is often employed to tackle those less frequent lexical items alone or together with other input modifications such as repetitions, paraphrase, and other discourse markers.

The issue of using L1 to repair vocabulary related communication breakdown is not without problems. One criticism relating to the use of translation to help acquire the target term is that if teachers switch to L1, students may be less likely to attend to TL forms (Wong-Fillmore 1985). This assertion is not empirically verified in the present study. The evidence from students' reaction data suggest that the provision of L1 equivalent for most less frequent lexical items can provide: 1) evidence to confirm students' hypothesis testing; 2) opportunities for deep processing by contextualisation; 3) information used in additional processing. In other words, teacher codeswitching functions as a cognitive tool for students to store, process and retrieve L2 content (Macaro 2001b). Another criticism leveled at the use of L1 is that codeswitching may contribute to the reduction of input in L2. However, as observed in this study and that by Macaro (1998a; 2001b), communicative content can be delivered quickly, thus the amount of L2 input from teachers may not be affected.

Furthermore, this study shows that codeswitching (together with other adjustments) modifies input and contributes to comprehension in conjunction with other speech modifications such as paraphrase, repetition and some discourse markers. However, experimental studies are needed to explore the effect of codeswitching on the learning outcome in the L2 classroom. This can be achieved by means of comparison to other speech modification devices. What the current study has been able to suggest is that codeswitching appears indispensable and contributes to students' strategy use and strategy development (see Macaro 2005).

Message-oriented codeswitching in this study serves multiple roles and functions such as pedagogical, social and managerial functions. In other words, teacher employ codeswitching primarily to "increase content, lubricate interaction and also to reduce anxiety" (Macaro 2001b: 537-544), a finding consistent with the literature (Mitchell 1988). In contrast to medium-oriented codeswitching, the potential pedagogical benefits of some message-oriented codeswitching, given its closeness to naturalistic codeswitching, seem less certain. For example, given that codeswitching with the function of Information-giving may be helpful in moving the discourse along and serving some social purposes (e.g. managing interpersonal relationship), they may risk running on too long and thus change the nature of classroom interaction as well as the balance of classroom language distribution. Furthermore, exposure time to L2 input may be reduced for students. Even worse, the lengthier message-oriented codeswitching may switch off students' processing of L2 input and make the return to L2 difficult (Macaro 2005).

Another message-oriented function of codeswitching worth dwelling upon is Instruction. In his discussion of Instruction as one function of codeswitching, Macaro (2001b) posits that this function tends to be a source of 'conflict'. In other words, the issue is related to whether giving instructions should be performed in L2 exclusively or not. Contrary to the secondary context in England (Macaro 1998a), in these two teachers' university EFL classrooms in Mainland China, most classroom instructions were actually delivered in L2 only, with some in L1. The reasons for this are probably, first, the interactional structures in these two classrooms are more controlled and

predictable. Thus, the instructions tend to be routinised. Second, the comprehension of these instructions may no longer pose problems to these relatively advanced learners. Finally, the less frequent use of tasks and activities in their lessons may reduce those lengthy and linguistically challenging instructions.

Furthermore, in this study, lesson observations show that teachers sometimes repeat in L1 after delivering the instructions in L2. This pattern for delivering instruction is more evident in Cindy's lessons than in John's as the latter delivers nearly all of his instructions in L2. Cindy, in her interview, ascribes her behaviours to her desire to ensure all students understand the instruction and to speed up the activity. This may be a sensible approach in that more competent students do not lose those important opportunities to get exposed to that precious input argued for by many theorists and researchers (Littlewood 1981; Ellis 1984; Chaudron 1985; Wong-Fillmore 1985; Krashen 1987; Nunan 1992). In the meantime, less competent learners get the message correctly and quickly, thus speeding up the classroom pace. Thus, the proliferation of input modifications and over-use of cognates in a tightly controlled structure in order to maintain L2 use may not be as effective as resorting to some quick bursts of codeswitching.

These observations about the functions of medium- and message-oriented codeswitching are further supported by the evidence from students' reaction data in the present study. Student respondents do have their own individual attitudes toward codeswitching functions. There is no monolithic love or hate

of all codeswitching. Moreover, their preferences for codeswitching vary considerably across codeswitching functions. For example, there is more preference for medium-oriented codeswitching than message-oriented codeswitching as each of them may offer immense differences in the quality of opportunities for learners' processing, which, indeed, trigger somewhat complicated reactions to them. This will be discussed in the following sections. However, this support for medium-oriented codeswitching should not discredit the prudent use of message-oriented codeswitching. While medium-oriented codeswitching has as its sole focus formal aspects of input, message-oriented codeswitching can have a large number of heterogeneous functions and effects on learners and learning (Mitchell 1988; Duff and Polio 1994; Canagarajah 1995; Macaro 2001; Kaneko 1991; Rolin-Iantzi 2002;) In addition, there is emerging evidence from this study that some use of message-oriented codeswitching, such as Information-giving, can significantly help tackle lesson content which is challenging both linguistically and cognitively. As evidence in this study shows, the careful selective use of message-oriented codeswitching for such reasons seems less controversial than those codeswitching at random.

In short, while researchers argue that the foreign language classroom is an emerging bilingual speech community, classroom codeswitching does not need to resemble naturalistic codeswitching in every aspect. In other words, the legitimisation of use of medium-oriented codeswitching seems less contentious and provides, according to the various evidence from this study, opportunities to activate learners' strategy deployment, providing learners with opportunities to make the most of the instructed classroom environment

and deeper cognitive processing. It may be assumed that decisions made to switch to L1 for message functions need to be cautious and take into account factors such as not using up valuable L2 time. Such an observation with respect to the functional use of codeswitching will be further discussed in the next section.

Theme five is concerned with teacher' beliefs and perceptions of CS, which complement the understanding of the pattern of teachers' codeswitching behaviour by means of classroom observation. Even though the codeswitching behaviours reported by these teachers have some dissimilarities from the empirical observations reviewed earlier, teachers' reflections on their codeswitching behaviours constitute an important basis on which their decision-making mechanisms related to language choices are premised.

With regard to their positions on the use of L1, these two teachers are examples of 'maximalists' (see 2.2 in Chapter Two). This is consistent with the literature (Mitchell, 1988; Kharma and Hajjaj 1989; Dickson 1996, Macaro 1997, Macaro 2001b) in that teachers' attitudes towards the use of L1 have been remarkably similar across age phases and educational settings. The majority of teachers view the use of L1 as recourse to L1 rather than codeswitching. There is virtual consensus among teachers of all levels that L2 should be the predominant language for the L2 classroom, and that failing to produce it will invite criticism and a sense of guilt (Mitchell, 1988; Macaro 2005). In addition, teachers tend to attribute their use of L1 to learners'

proficiency and age. This is consistent with other studies (Kharma and Hajjaj 1989; Dickson 1996; Arnett 2001).

8.2 To what extent is classroom codeswitching in the present study similar to a naturalistic environment?

If we were to ask to what extent classroom codeswitching in the present study resembles naturalistic codeswitching, the message-oriented codeswitching would seem less problematic, its focus being more on communicating messages than highlighting the formal aspect of input. Most functions of message-oriented codeswitching in the classroom, for example, to move the discourse along and to lubricate the conversation, are congruent with those in naturalistic codeswitching. In naturalistic codeswitching, depending on the topic of discussion, participants will choose among the available linguistic codes to perform various functions which are similar to some of the functions performed by message-oriented codeswitching in the classroom.

Medium-oriented codeswitching which, for example, is aimed at the formal aspect of language may, however, present some difficulty in resembling naturalistic codeswitching. (Turnbull 2001; 2006) In other words, they occur much less often in naturalistic settings. For some researchers (e.g. Turnbull 2001; 2006) this is a concern as this type of intra-sentential lexically-based codeswitching cannot contribute to future language competence. For other researchers (e.g. Macaro 2005), classroom codeswitching does not need to duplicate natural ones and should retain its own characteristics. Although it

may be disruptive to switch languages during a conversation due to the fact that speakers switch out of an inability to express themselves, it does provide an opportunity for language development in the classroom. For example, Macaro (ibid) argues that a teacher switch to L1 for the purpose of moving the interaction along (message-oriented codeswitching) resembles naturalistic codeswitching, while a teacher switch to L1 in order to enable the learners to acquire the phrase (medium-oriented) does not. Despite these potential dissimilarities between classroom codeswitching and naturalistic codeswitching, it is possible that medium-oriented codeswitching may still exist in naturalistic interaction as well. For example it may be that siblings in families may 'help' one-another with lexical items not only to communicate, but also to learn. However, supportive empirical evidence would seem to be lacking in this regard.

Apart from the above discussion of the distinctive motivations for codeswitching in these two contexts, i.e., naturalistic and classroom context, it is probably worth having a look at whether there are differences in the way codeswitchings resemble or differ from each other in terms of their length, frequency of their occurrence and the way codeswitchings are made, i.e. the switching rules. As Macaro (2001:68) postulates, despite the recognition of the naturalness of codeswitching, there appear to be some rules governing the use of codeswitching. For example, bilinguals never switch in the middle of a sentence with a closed class of words like prepositions and pronouns—words that you cannot add to the lexicon of a language without changing the language itself. In contrast, nouns, verbs, adjectives and all lexical elements

that are constantly being added to a language are suggested by research to be the elements which bilinguals codeswitch with both frequency and ease. Codeswitching into familiar L1 words is a compensation strategy often used when conversing with other bilinguals. In some cases, it can even be a form of enrichment strategy because some words express a concept better in one language than in another.

8.3 Codeswitching as a strategy to reduce the cognitive load

There are a small number of studies which attempt to explore whether L1 can be employed as a strategy to contribute to language processing (Kern 1994; Spada and Lightbown 1999; Hawras 1996). This study has also provided some initial empirical evidence into the use of codeswitching as a strategy to lighten the cognitive load. Macaro (2005), drawing on the cognitive theory of attention and memory, postulates that "a code-switch can reduce the selective attention dedicated to a single communication breakdown, freeing up working memory capacity to work on the meaning of larger chunks of input whilst at the same time offering the hearer the opportunity of quick storage of an L1-L2 equivalent they were previously not aware of" (Macaro 2005: 74-75).

Such use of codeswitching to lessen learners' processing burden is extensively reported in students' reaction data in the present study (See 7.1.1 and 7.2.2 for examples). When learners made the effort to process those short bursts of medium-oriented codeswitching targeting low-frequency lexical items, the selective attention they applied, according to the present study,

could be considerably reduced with the help of teachers' strategic use of L1 equivalents for those lexical items. Without codeswitching, a considerable amount of selective attention will be expended in guessing and inferencing from the context, which is sometimes a source of anxiety and negativity towards target language use reported from the data in this study. Of course, there is nothing wrong with inferencing as a strategy in its own right. The conclusion of the discussion is not to blame it, but to highlight that, without codeswitching, at least in this study, 'the constantly high-speed inferencing in the spoken medium' (Macaro 2005:75) would considerably increase the cognitive load, which is likely to lead to the shutting down of the processing of the subsequent input. Furthermore, without the use of codeswitching, the working memory capacity would be limited to the processing of smaller chunks of input. At the same time, without codeswitching, it might not be possible to connect the new information with existing learnt information in the learner's mental lexicon, and the simultaneous, quick storage of L1 and L2 equivalents would probably become less likely.

Another obvious drawback of absence of codeswitching is that when encountering less frequent lexical items, students are likely to continually refer to their dictionaries in the class, and thus run the risk of losing track of the teacher's input. As apparent from the lesson video, to remedy this, teachers sometimes have to slow down or resort to input modifications, which sometimes may prove time-consuming. Thus, the use of codeswitching may keep students engaged in mental activities that otherwise would be difficult in an exclusively L2 environment. This may help both teachers and learners to

continue to build a fairly complicated thinking exchange with the help of L1 in order to carry on the classroom discourse smoothly and thus, reduce the cognitive load, to provide a favourable environment for the acquisition of L2 to take place.

Furthermore, as demonstrated in this study, without codeswitching, students may be denied access to a very important resource, i.e. their schematic knowledge (Widdowson 1983, 1984). This knowledge, if suppressed, would make communication between teacher and students both cognitively challenging and time-consuming. In addition, failure to activate and use such knowledge is a considerable waste of a resource, as it is particularly effective in tackling the comprehension problems associated with challenging texts. This is reflected especially in John's lessons, evidence from which demonstrates that he is quite skilful at inserting short message-oriented codeswitching in his speech, helping students to engage in thinking that relates more closely to the message topics than the medium of language. However, it may be argued that this activation of schematic knowledge in L1 may be problematic, as students engage in thinking in L1 and not in L2. Nonetheless, L1 is always there as the language of thought inside the foreign language learners' minds, and the issue of whether one can really suppress L1 is still relatively unexplored (Cook 1999). The danger, again, is the possibility for L1 use to extend beyond a certain threshold level and thus the nature of classroom discourse can change the pedagogical framework or objective of the lesson. Future research may be needed to determine more precisely this threshold level for the benefit of pedagogical practice.

In summary, as selective attention must be strategically allocated to cater to the competing demand from various activities (Schmidt 2001), codeswitching may be able to reduce the cognitive load without the cost of losing general attentional focus on understanding the teacher's input. To tackle the limits of working memory processing capacity, "it is not an unwise conjecture that the noticing will be mediated by the L1" (Macaro 2001: 126).

8.4 Codeswitching and learner strategy development

This study also lends empirical support to the argument that the ban on the use of codeswitching will impede the development of students' strategy use. In particular, the absence of teacher codeswitching will deprive students of opportunities to develop their meta-cognitive and cognitive strategies to process the L2 input which is made comprehensible via the strategic use of teacher codeswitching. Just as teachers constantly make decisions to modify their input in order to make it comprehensible at the receiving end, learners have also to make decisions with regard to how they further process the input, i.e. what degree of attention should be accorded to the input.

According to Macaro (2005), there are a number of problems associated with the denial of teacher codeswitching that teachers and students may encounter. Specifically, the denial of teachers' codeswitching cannot offer teachers the opportunities to act as a bilingual dictionary, offer translation as a learning task, offer pre-listening activities which trigger appropriate combinations of

listening strategies, offer the kinds of task-based learning promoted by certain authors (Prabu 1987; Di Pietro 1987; Skehan 1998) and trigger a range of strategies in their learners when asking them to carry out a writing task. Therefore, it can be concluded that the downside of the denial of codeswitching will 'reduce learner strategy development in terms of range, combination and self-evaluation of strategy use' (Macaro 2005:75-77).

A direct comparison of which is more effective; inferencing or codeswitching, has not been the focus of the present study. However, there is emerging evidence in the study to suggest that students use both, and there have been repeated reports that codeswitching provides confirmatory evidence even if the lexical item is explained by other input modifications such as paraphrase first. In this case, if codeswitching is denied, learners may feel their processing is less complete, which may have implications for the long-term storage of the lexical items as well. Even though the evidence from the current study does not allow us to claim too much in this respect, it will be an interesting area for future studies to explore.

Chapter Summary

So far, we have been able to place the findings from the current study in the context of the literature and have examined a range of themes that find their voice in the current study. What we can glean from this study is that it has furnished evidence from multiple sources, though indirect, towards the goal

of contributing to an optimal use theory of codeswitching in broadly communicative L2 classrooms. The discussion has been able to offer some suggestions as to how further studies may continue to work toward this goal. In the next chapter, the conclusions will be drawn, limitations will be discussed, and directions for future research will be summarized.

Chapter Nine: Conclusion

Introduction

It has been made clear in Chapter One that the research purpose of this study was to understand teachers' codeswitching behaviour. The intention was to delineate the pattern of teacher codeswitching behaviours in the context of university EFL classroom in Mainland China and also to uncover the strategies learners deploy when processing codeswitching by their teachers. The focus of this final chapter looks back at what this research set out to achieve, and evaluates the extent to which it has been achieved. This chapter concludes the investigation by summarising generated research insights and the implications for wider context. Following from this are brief recommendations for further studies and a summary of the limitations of the study.

9.1 Summary of the findings

Before relating the finding of the present study to those in the literature it may be worth bearing in mind that the current study comprises a small number of two teachers with more lessons (16) involved than in other previous studies which may comprise more teachers and fewer lessons. In so doing, this study may provide a more in depth picture of how the target behaviour of teachers' language choices evolves over a period of time and provide a sequential dimension of the behaviour investigated.

The first research question sought to understand how L1 and L2 are distributed and also their related functional use. In terms of timed distribution of their use of L1 and L2 the two teachers vary little in their average use of L1 and L2; however, they vary enormously in terms of how often codeswitching (bounded by L2) appears in the discourse. Despite the lack of variance in the use of L1 and L2 between the two teachers in general their use of L1 and L2 vary considerably across lessons. Such a pattern of variance may be attributed to a number of variables. Among them, lesson content and programme levels may be the two important factors to account for such a disparity in their codeswitching behaviours.

In addition, what we also discover via correlational tests is that, in the corpus, use of L1 by teachers does not necessarily increase the use of L1 by students. What has emerged from analysing classroom data is, the use of elicitations realised by the short bursts of codeswitching can expand learners' opportunities to engage in L2.

Moreover, a range of functional use of codeswitching has been identified from both teachers. It appears that the two teachers do not differ considerably in the pattern of using medium-oriented codeswitching but in using message-oriented codeswitching. In addition, the medium-oriented codeswitching are definitely far shorter than message-oriented codeswitching in terms of counting the words in each codeswitching utterance while it is also probably shorter in terms of measuring the time it takes.

Another interesting finding is that sometimes what the teacher believes (in their interviews and TESLK data) is at odds with what they actually do (in the classroom observations). It has been discovered that Cindy's pattern of codeswitching is more consistent with her beliefs about the needs of students and John's pattern appears slightly more random.

The second research question relates to students' reactions to their teachers' codeswitching behaviours. Both positive and negative attitudes towards teacher codeswitching are identified though positive attitudes seem to be predominant. This pattern seems true in both teachers' groups and therefore individual differences may be a major factor in accounting for the variability in reactions.

In respect of students' strategic reactions towards teacher codeswitching, a good range of strategies has been identified in both student groups. The strategies reported include both meta-cognitive, cognitive strategies and socio-affective strategies. However the use of cognitive strategies is most frequently reported. No discernible pattern has been identified in terms of variance of strategy use in both students group. It appears that the strategies deployed in processing the input which contains teachers codeswitching related to the nature of codeswitching.

This innovative attempt at exploring strategic reactions toward teacher codeswitching offers evidence, though indirect, for the role of L1 in L2 acquisition from students' perspective. It has been found that codeswitching

provide evidence to confirm students' hypothesis testing, provide opportunities of deep processing by contextualisation and provide information used in additional processing. In short, codeswitching often functions as a strategy to reduce the cognitive load when processing L2 input.

9.2 Implications

This study has implications for several areas within applied linguistics and SLA classroom research, psycholinguistics and language teaching pedagogy.

First, at least the evidence from the present study suggest that teacher codeswitching in the classroom is not detrimental to the learning process. This implies that it is probably less rational to frown upon teacher code switching. Some unjustified policies on the use of L1/L2 shall be questioned. The consequence of a less rational and less empirically based prescriptive policy will exert negative influence on the construction of a healthy professional development environment for L2 teachers.

Second, teachers should be made aware of, and feel supported by, the guidelines on the hows and whys of codeswitching. The existence of codeswitching behaviour in thousands of classrooms around the world implies that the issue should not be deliberately neglected.

Third, some initial evidence for how teacher codeswitching can be employed effectively may partly contribute toward more comprehensive and coherent

set of guidelines for informing the teaching practice. Teacher codeswitching may need to be more attuned to the needs of the particular learners in a classroom at any one time, to allow the development of language learning to occur simultaneously for learners of different abilities. This can be assisted by the use of codeswitching. This study has also provided a framework for teachers to consider when evaluating their own language alternation patterns.

Fourth, the patterns and systematic variations discovered here provide corroborative evidence for the notion that teachers' codeswitching behaviour in FL classroom may be parallel to naturalistic codeswitching to a certain extent, and may also retain its own distinct characteristics.

Fifth, this study has provided the opportunity to examine learners' strategy development in relation to teachers' codeswitching. The findings of the current study may provide a mechanism for student strategy training. In other words, teachers can prepare their input not only in a more comprehensible way, but also in a way to be more conducive to the development of students' strategies.

Sxith, the current general goal of second language education, namely to educate learners to the level of a competent native speaker, might need to be reappraised to focus upon the development of a bilingual or multi-competent users and speakers instead.

Finally, this study conveys a useful message in terms of the methodology for future studies that to understand more fully about the amount of codeswitching by employing more than one analysis approach as in the present study seems sensible as the timed analysis alone may be less powerful than combining it with discourse analysis to measure certain features of the teachers' codeswitching other than the speed or rate of speech.

9.3 Limitations of the study

This research set out to investigate the pattern of teachers' codeswitching behaviour in EFL classrooms. This has been achieved by adopting a multiple case study design approach. In other words, multiple sources of data have been collected and employed in order to produce a comprehensive thick description which is impossible to achieve using only a single source of data. This collection of multiple sources of data ensures internal validity. Otherwise, the understanding of the pattern of codeswitching might be compromised without the presence of data on the functional use of codeswitching, teacher accounts of their language choices behaviours collected via face to face interviews and a follow-up survey. Furthermore, the application of stimulated recall methodology has provided feedback and insights into the pattern of teachers' codeswitching from students' perspective which enables us to examine closely what the consequences and effects are of teachers' codeswitching on learners and their learning. In combination, the application of all these research approaches have provided multiple layers of

evidence to obtain a more accurate portrayal of the codeswitching behaviours between these two teachers and their students.

However, as with all classroom studies, this study is not without problems. This study contains a number of limitations which should be highlighted so that future studies might avoid them.

First, even within the case study approach, the sampling of teachers and students should be made as randomly as possible so that the external validity of the findings can be greatly enhanced. This was difficult to achieve in the present study except by ensuring the teachers in this study met the essential criteria set out in 3.2.3.2. In light of this, it is possible that the student sample consisted of a group of highly motivated students, rather than representing a more random selection.

Second, collecting more background data, for example learners' proficiency, at the time of the study would be more helpful in explaining the potential variance of the pattern of students' reaction. The access to students' proficiency in L2 was not collected because at the time of the design the factor was not considered important and significant. Despite the potential difficulty of determining students' proficiency level accurately; the availability of such data might enable a more revealing analysis. Third, despite the follow- up survey related to teachers' knowledge of their students' vocabulary ability, the data for teachers' post-lesson evaluation of their codeswitching behaviour were not collected. Even though in depth

exploration into teachers' decision making mechanism for language choices have been provided in other studies, with this data the present study would be enriched.

Third, as made clear in 3.3.2.4 that John and Cindy both were aware of the focus of the research towards the end of the phase 1 study. This does raise the issue of the likelihood for their codeswitching behaviours to be altered in the phase 2 study. For example, these two teachers might be encouraged to codeswitch more or less as a consequence of knowing that codeswitching was the behaviour under investigation. This may affect the use of codeswitching by these two teachers, despite the fact that this effect might be mitigated to the minimal by the considerable lapse of time between the phase 1 and phase 2 study and also this effect seems not fully supported by comparison of the statistics on the amount of code switching between the phase 1 and phase 2 study (see Table 4.1 and Table 5.1) in which the mean use of codeswitching by Cindy remained hardly changed though John's use had markedly increased.

With regard to external validity of this study, the results and conclusions of the present case study are based upon a limited sample of teachers and students from two universities and, therefore, can only be applied to the participants who took part in this study. However, the findings about these two teachers and two student groups may be applicable to those teachers and students in some other similar schools which share similar features and characteristics. It could be hypothesised that the findings in the current study

can be applicable in a wider context. However, the data from the present study might not be able to confirm this.

9.4 Recommendations for further research

Future research may need to continue to examine the pattern of teachers' classroom codeswitching and how it relates to wider contexts and more specific pedagogic functions.

It may also be fruitful to delve deeper into teachers' decision-making processes related to their codeswitching behaviours. Future research may need to examine to what extent there is variation in what the teacher believes they do and what they actually do in the classroom in terms of their language alternations.

While the present study has explored how students react strategically to teachers' codeswitching, future studies may, based on students' comments from the present study, develop a survey instrument which can be applied to a larger sample of teacher and student participants.

Another important avenue of research would be to measure the effect of codeswitching. Future research into the role and optimality of teachers' codeswitching should aim at investigating whether codeswitching is more effective than other strategies in delivering the instruction. This would be done via experiments conducted with learners. In other words, future research

might focus on investigating whether there is evidence that a L1-L2 connection functions more effectively than a paraphrase, for the purpose of vocabulary acquisition.

Finally, future research may be needed to both at theoretical and empirical level determine exactly what the threshold level for the use of L1 is, either in terms of the quantity of codeswitching use and functional codeswitching use, in order to produce the best possible pedagogical practice as the maximal position seems less empirically based and lack of theoretical underpinnings thus making the practice difficult.

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Appendices

Appendix 3.1. A sample of COLT coding scheme

(a) The teacher asks the students what 'I'll be back at two' could mean in the context of different situations. They discuss how this could simply function as a response to an information question or as a threat or a promise and so on.

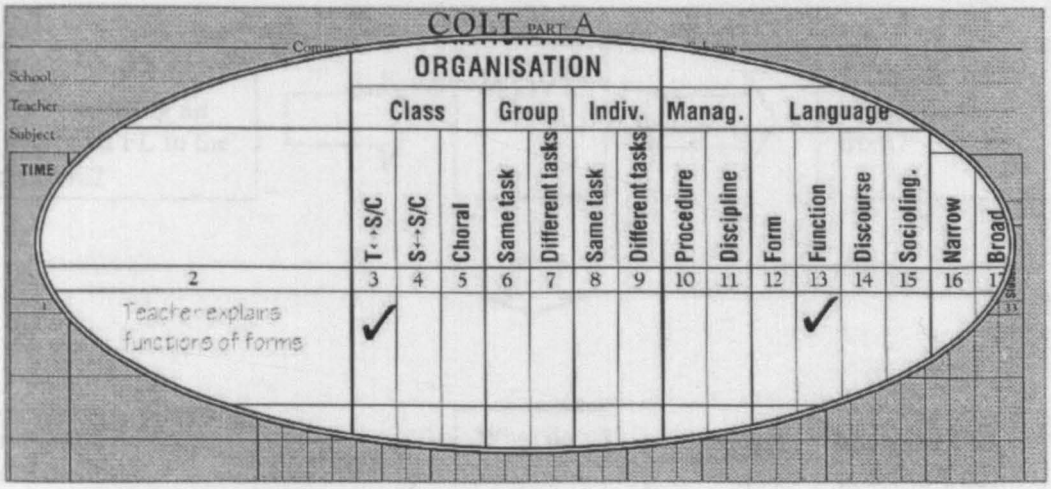


FIGURE 3.12a: Function (exclusive)

(b) An example of a primary focus on *Function* would be the following: The teacher explains to the students that there are different ways of expressing one's opinion (eg 'I think...', 'In my opinion...'). In this case, by giving students examples of the linguistic realisations of these functions the teacher is also focusing on *Form*. The coding of this is illustrated in Figure 3.12b.

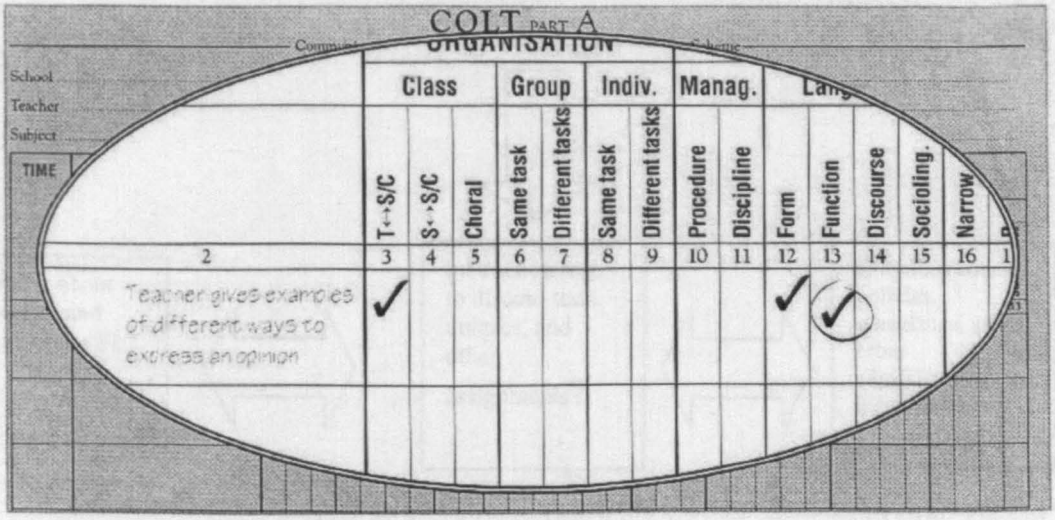
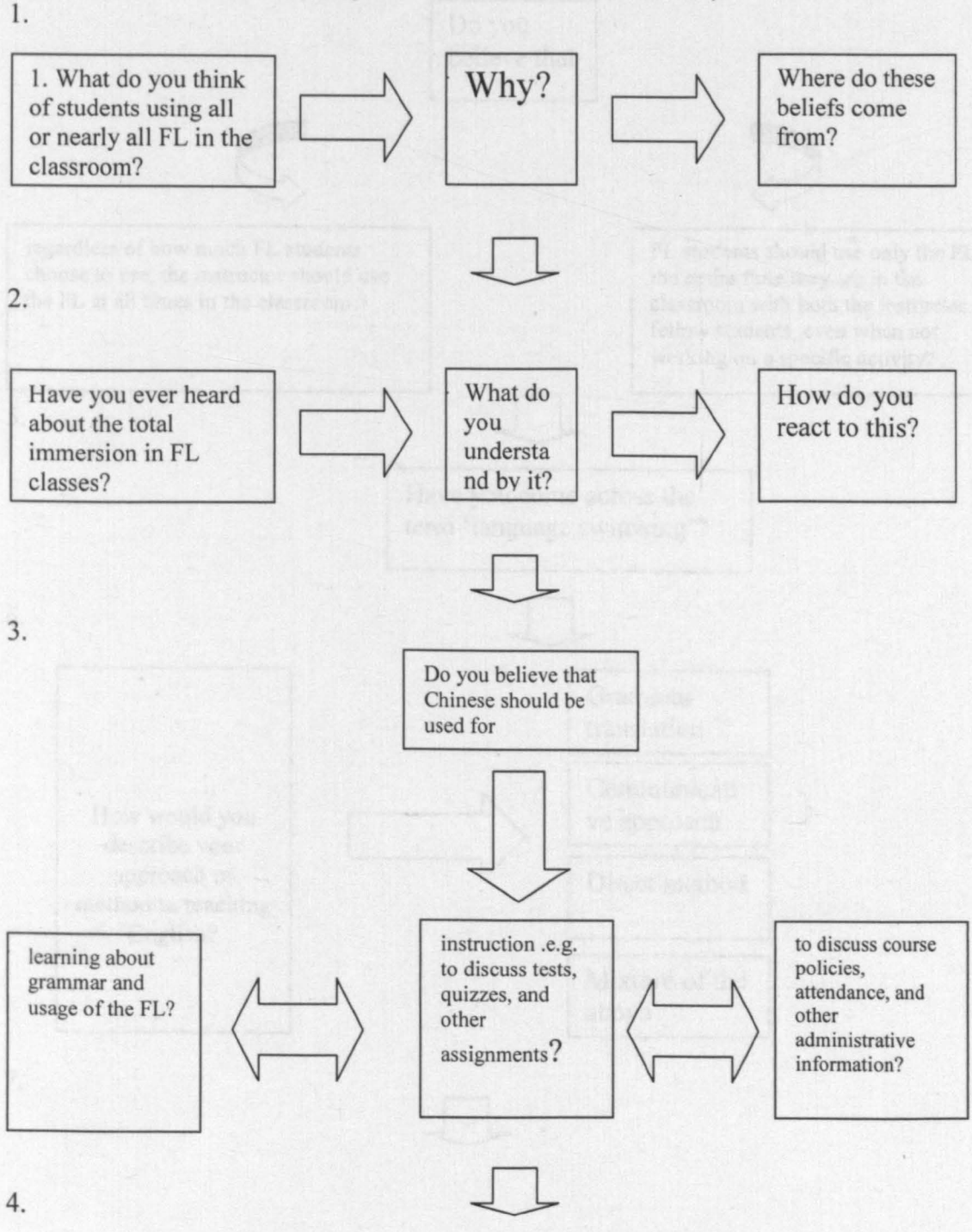
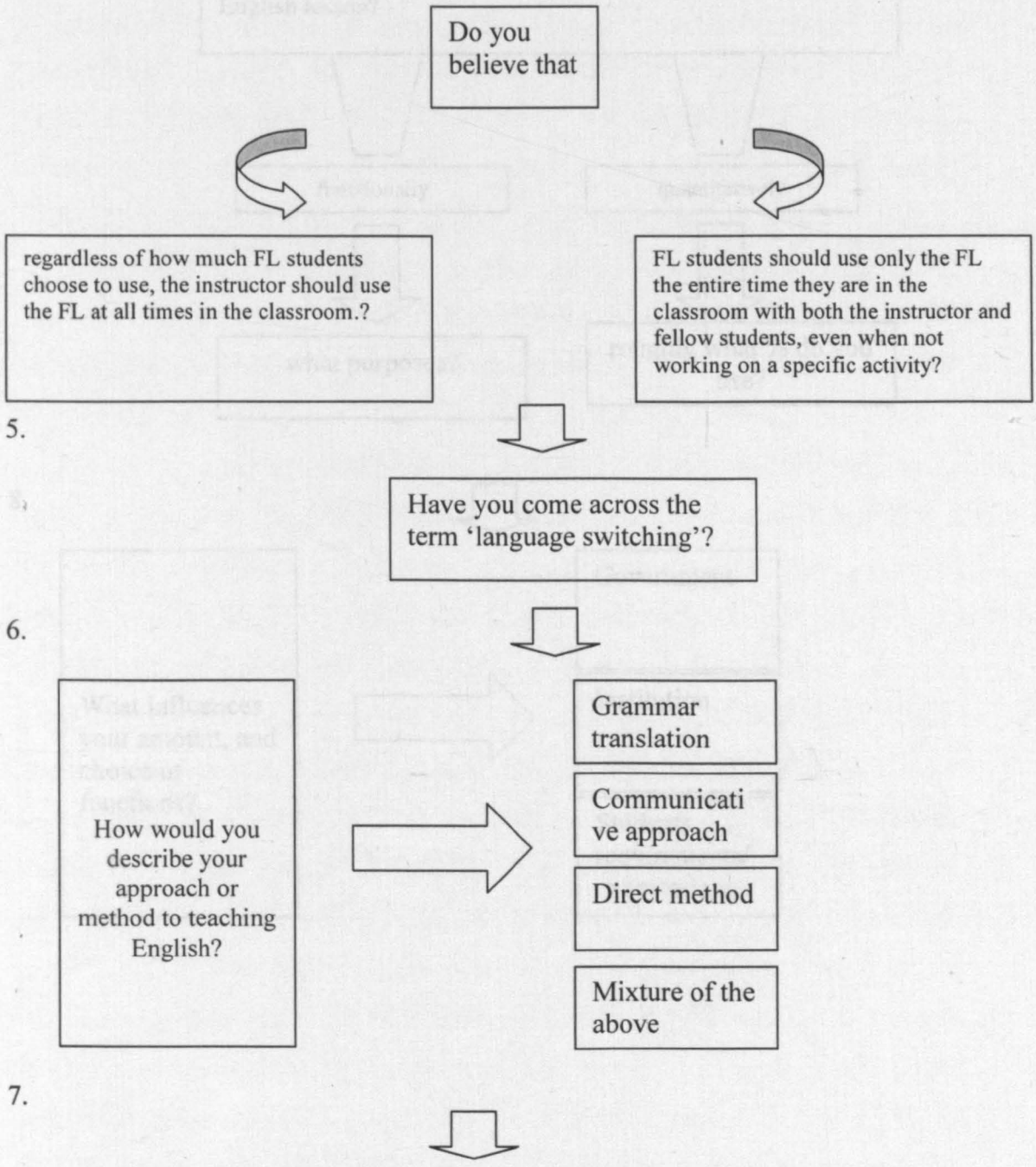
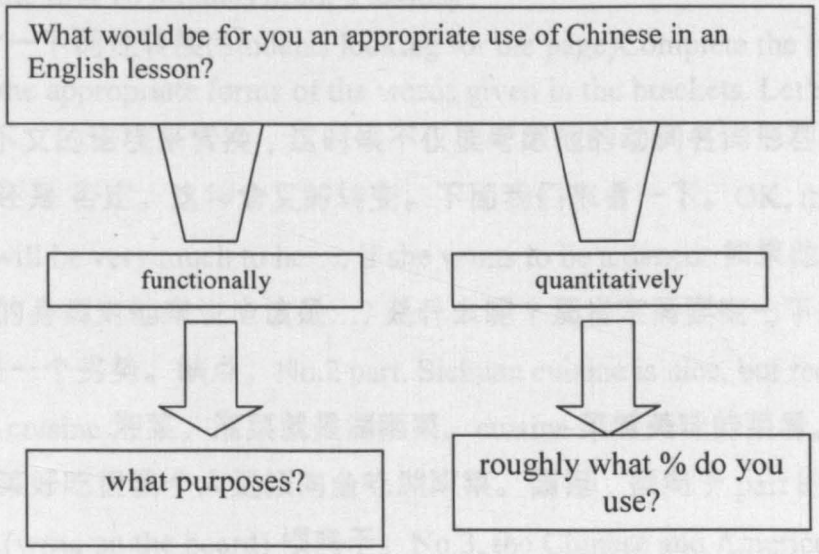


FIGURE 3.12b: Function (primary)

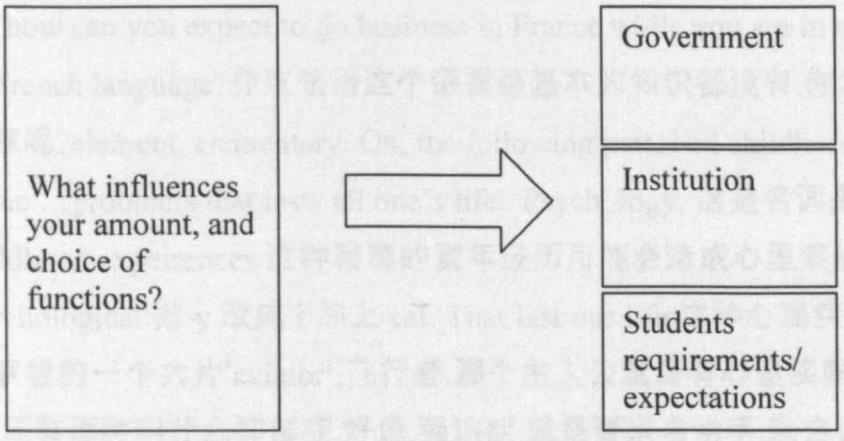
Appendix 3.2 Teacher Interview Questions
(Adapted from Levine, G.S 2003:359)




Do you believe that
regardless of how much FL students choose to use, the instructor should use the FL at all times in the classroom.?
FL students should use only the FL the entire time they are in the classroom with both the instructor and fellow students, even when not working on a specific activity?
5.
Have you come across the term 'language switching'?
6.
How would you describe your approach or method to teaching English?
Grammar translation
Communicati ve approach
Direct method
Mixture of the above
7.


What would be for you an appropriate use of Chinese in an English lesson?
functionally
quantitatively
what purposes?
roughly what % do you use?

8.


What influences your amount, and choice of functions?
Government
Institution
Students requirements/ expectations

Appendix 3.3 The transcript sample of one of Mark's lesson

(Transcript for the first 10 minutes Mark's lesson)

Mark：24 页看一下词性转换(Students looking for the page)Complete the following sentences with the appropriate forms of the words given in the brackets. Let's come to it.这要根据上下文的语境来转换，这时候不仅要考虑他的动词名词形容词还要考虑他是肯定还是 否定。这种含义的转变。下面我们来看一下。OK, the first one the height will be very much to her… if she wants to be a dancer.如果他想当舞蹈演员的化，的身高对他来说应该是…? 是什么呢？那肯定需要变一下是名词 disdanantage 是一个劣势。缺点。No.2 part. Sichuan cuisine is nice, but recently I'm…to Hunan cuisine.湘菜。湘菜就是湖南菜。cuisine 菜肴美味的菜肴。那么为什么我是四川菜好吃但我个人更倾向鱼吃湖南菜。偏袒，倾向于 part 的形容词是 be partial to.(write on the board) 倾向于。No.3, the Chinese and American officials met … their first 上周中美官员见面来讨论来促进环境保护保护领域里的合作，co-operation, 书上这个词是吧? The next one is element,元素也是基本的意思, how can you expect to do business in France while you are in most…knowledge of French language?你连法语这个语言最基本的知识都没有,你怎么能到法国去做生意呢?element, elementary. Ok, the following part, bad childhood expereice can casue …problems that lasts all one's life. Psychology, 这是名词是吧.那么这种 bad childhood expeirences 这种糟糕的童年经历可能会造成心里疾病,那么 psychological 把 y 改成 i 加上 cal. That last our life.这种心理疾病可能会持续一生.大家看的一个大片'aviator',飞行者.那个主人公就是有心里疾病.总想,他有一个洁癖,还有那种叫什么抑郁症,好像,强迫症,就是要亲自动手,亲自试飞飞机,结果出事了.你看他没事就洗手,特干净. OK,now the following part, solve 是动词, let's put our hands together to find the 冠词后面应该是名词,那么是 solution, solution,(Write 'solution' on the board)名词啊.responsible, the sisters took up the … of bringing up their brothers because their parents were killed in an accident.在父母之后,承担起抚养起兄弟姐妹的责任.那么这应该是一个名词是吧?名词是 responsibilities,责任.OK now the next one, create, this is the …application of the latest theory of learning and teaching. Creation 的形容词是 creative 创造性的,这是一个对于最新教学理论的创造性的应用.The last one, major in, 全班是一白人他获得了 70 张选票.那他很明显地获得了大多数人的支持..然后获得竞选的胜利.那么应该是一个 clear majority.这是一种词形的转化.动词变形容词,形容词变名词,或者是否定等等.Well, now we will come to the preposition and adverbs. Fill in the blanks.我们先

看一下介副词填空和短语词组的搭配来记忆的这种情况,下面我们来看一下,now the first one, it's better to consider the problem carefully and count on the sound suggestions.下面给大家一点时间 two minutes 来填一下.然后再将句子翻译一下. (then he asked student to do the exercises one by one)

Below is a version of the same transcription with English translation in capital letters for the Chinese Mark used.

Mark：LET'S LOOK AT THE CHANGES OF PARTS OF THE SPEECH ON PAGE 24 (Students looking for the page) Complete the following sentences with the appropriate forms of the words given in the brackets. Let's come to it. THIS CHANGE IS SUBJECT TO THE CONTEXT. YOU ARE NOT ONLY REQUIRED TO CONSIDER WHETHER THEY ARE VERBS, NOUNS, ADJECTIVES, BUT ALSO WHETHER THE SENTENCE IS AFFIRMATIVE OR NEGATIVE. NOW HERE ARE A FEW EXAMPLES.OK, the first one, the height will be very much to her… if she wants to be a dancer. IF SHE WANTS TO BE A DANCER, THE HEIGHT, TO HER, IS A…? IS A WHAT? IT' S DEFNITE THAT WE NEED TO CHANGE THIS NOUN. Disadvantage IS A DISADVANTAGE, A DRAWBACK.

No.2. part. Sichuan cuisine is nice, but recently I'm…to Hunan cuisine. XIANG FOOD. XIANG FOOD IS FOOD FROM HUNAN. Cuisine. STYLE OF COOKING, DELCIOUS DISHES. WELL, SICHUAN FOOD IS NICE BUT MY PREFERENCE IS HUNAN CUISINE. PARTIALITY, DISCRIMINATE, IN FAVOUR OF. THE ADJECTIVE OF Part IS be partial to.(write on the board) .BE PARTIAL TO.

Okay the following page, let's come to the next one. . the Chinese and American officials met last week to discuss how to promote… in the favour of environmental protection LAST WEEK THE SINO CHINESE OFFICIALS MET TO DISCUSS HOW TO PROMOTE THE COOPERATION IN THE FAVOUR OF ENVIRONMENTAL PROTECTION. COOPERATION COMES FROM THE TEXTBOOK, DOESN'T IT?

The next one is element. ELEMENT MEANS ALSO PRIMARY, how can you expect to do business in France while you're in most …knowledge of French language? WITHOUT EVEN THE BASIC KNOWLEDGE OF FRENCH, HOW CAN YOU DO BUSINESS IN FRANCE? Element, elementary..

Okay, the following part, bad childhood experience can cause …problem that lasts all one's life. Psychology IS A NOUN, ISN'T IT? WELL THIS KIND OF bad childhood experiences. THIS KIND OF BAD CHILDHOOD EXPERIENCE CAN CAUSE PSYCHOLOICAL PROBLEM,WELL, Psychological, CHANGE 'Y' INTO 'I' AND PLUS 'CAL'.That lasts for life. THIS KIND OF PSYCHOLOGICLA PROBLEM WOULD LAST FOR OUR LIFE.GUYS, HAVE YOU SEEN THE MOVIE 'aviator' AVIATOR.THAT HERO HAS GOT THE PROBLEM. HE ALWAYS THINKS,HE'S OBSESSED WITH CLEANLINESS. AND ALSO HE'S GOT SOME SORT OF REPRESSED AND ALSO SORT OF COMPULSIVE... HE WANTS TO PUT HIS HANDS ON EVERYTHING. HE WENT TO TEST THE PLANE AND IT

WAS AN ACCIDENT. HE KEEPS CLEAN ALL THE TIME AND HE WASHES HIS HANDS RELENTLESSLY…

OK, now the following part, solve IS A VERB. Let's put our hands together to fine the… WHAT FOLLOWS THE ARTICLE IS A NOUN. THEN IT SHOULD BE A NOUN.THAT'S solution. Solution (write on the board). IT'S A NOUN.

Responsible, the sisters took up the …of bringing up their brother because their parents were killed in an accident. THIS SHOULD BE A NOUN? IT IS RESPONSIBILITY.

OK, now the following part, creative, this is the creative… application of the latest theory of the learning and teaching. THE ADJECTIVE OF CREATION IS CREATIVE, INNOVATIVE. THIS IS THE CREATIVE APPLICATION OF THE LATEST THEORIES OF TEACHING AND LEARNING.

The last one, major, AMONG THE WHOLE CLASS OF 100 PEOPLE, HE GOT 70 VOTES. THIS OBVIOUSLY INDICATES THAT HE HAS WON THE SUPPORT FROM THE MAJORITY. SO THIS SHOULD BE A clear majority. THIS IS A CHANGE OF PARTS OF THE SPEECH.

Well, the next part we will come to the preposition and adverbs. Fill in the blanks. LET'S LOOK AT THE BLANK, FILLING OF PREPOSITIONS AND ADVERBS AND THE COLLOCATIONS. NOW LET'S LOOK AT, now the first one, it's better to consider the problem carefully and count on the sound suggestions. NOW YOU'LL BE GIVEN TOWO MINUTES TO DO THE EXERCISE AND THEN TRANSLATE THE SENTENCES…

Appendix 3.4 Guidelines for conducting stimulated recall sessions (Gass and Mackey 2000)

INSTRUCTIONS FOR STIMULATED RECALL

Instructions for research participants:

What we're going to do now is watch the video. We are interested in what you were thinking at the time you were talking about the pictures. We can hear what you were saying by looking at and listening to the video, but we don't know what you were thinking. So, what I'd like you to do is tell me what you were thinking, what was in your mind at that time while you were talking to her.

I'm going to put the remote control on the table here and you can pause the video any time that you want. So if you want to tell me something about what you were thinking, you can push pause. If I have a question about what you were thinking, then I will push pause and ask you to talk about that part of the video.

Instructions for researcher collecting recall data:

After reading the instructions to the participant, model stopping the video and asking a question. For example, choose a segment and stop the video. Ask your question. If they stop the video, listen to what they say. If you stop the video, ask something general like:

What were you thinking here/at this point/ right then?
Can you tell me what you were thinking at that point?
I see you 're laughing/looking confused/saying something there, what were you thinking then?

If the participant says "I don't remember," accept the comment and move on. "Fishing" for recall comments that were not immediately given by the participant will increase the likelihood that the recall comments will be based on what participants think now, some other memory/perception, or some flawed or

biased recollection. Try not to focus or direct participants' answers beyond "what were you thinking then." It may also be useful to direct participants' attention to the original native speaker utterance or their own production by saying something like:

Do you remeber thinking anything when she repeated that?
Can you remember what you were thinking when she sadi that/those words?
Can you tell me what you thought when she said that?

If the participant begins to talk over the tape, pause the tape and angle the remote control towards the participant so that she can release the pause when she is finished talking.

Additionally, researchers should not give concrete reactions to participants' responses. Backchanelling or non-responses are preferable. For example,

oh
mhm
I see
uh-huh
ok

It is important to avoid extended responses or three-part exchanges, because providing feedback or input to learners may alter the nature of their recall comments. In short, try to be a "warm body," not a conversational partner.

Appendix 3.5 A sample of worksheet for identifying code switching during the observation

Teacher: Cindy Date and time: 11/10/05 Tuesday Afternoon Place: 105 School of foreign languages

Message					Medium				
time	Reprimand	Instructions	Eliciting & repairing	Information giving	Eliciting	Translation L1>L2	Translation L2>L1	Teacher echo in L1	Correcting L1
				14.25	8.50		4.27		
				25.50			15.00		
							17.30		
							23:8		

Appendix 3.6 Overview of video recorded lessons for analysis in phase 2 study

Lesson Identifier (Cindy)	Time of week observed	Learner group	Lesson content	Lesson length (minute)	Teacher	Lesson Identifier (John)	Time of week observed	Learner group	Lesson content	Lesson length (minute)
C1	11/10/05 Tuesday Morning	Undergraduate first-year high ability A	Introductory lesson	44.30	John	J1	28/09/05 Wednesday	Postgraduate first-year mixed ability B	Reward according to ability, not age and experience	44.35
C2	14:32 11/10/05 Tuesday Afternoon	Undergraduate first-year high ability B	Introductory lesson	44.32		J2	12/10/05 Wednesday morning	Postgraduate first-year mixed ability B	Give us 15 minute a day	45.04
C3	18/10/05 Tuesday afternoon	Undergraduate first-year high ability B	World famous universities	43.00		J3	17/10/05 Monday	Postgraduate first-year mixed ability A	Individuals and masses	45.30
C4	25/10/05 Tuesday Morning	Undergraduate first-year high ability A	World famous universities Reading and translation	43.55		J4	19/10/05wednesday	Postgraduate first-year mixed ability B	Individuals and masses	45.16
C5	25/10/05 Tuesday Afternoon	Undergraduate first-year high ability B	Same as above	44.53		J5	24/10/05 Monday	Postgraduate first-year mixed ability A	Nowhere to hide	38.45
C6	01/11/05 Tuesday morning	Undergraduate first-year high ability A	Jobs and careers writing, reading and vocabulary	44.50		J6	26/10/05 Wednesday	Postgraduate first-year mixed ability B	Nowhere to hide	42.15
C7	08/11/05 Tuesday Morning	Undergraduate first-year high ability A	Reading and vocabulary building	42:40		J7	31/10/05 Monday	Postgraduate first-year mixed ability A	Growing up is hard to do	45:30
C8	08/11/05 Tuesday Afternoon	Undergraduate first-year high ability B	Reading, vocabulary and talking about interviews	42.28		J8	2/11/05 Wednesday	Postgraduate first-year mixed ability B	Growing up is hard to do	43:50

Appendix 3.7 TESLK data collection sheet

A checklist for Cindy

Do you think your first year students know the following English words?

	Words being codeswitched	Words which didn't appear in the lesson but thought to be of similar difficulty to the ones being codeswitched	Definitely know	Probably know	Don't know
1	Career	profession			
2	Career women	Professional women			
3	Extra-curricular	Extraordinary			
4	Mass media	journalism			
5	No more than	No less than			
6	Subtitle	entitle			
7	Book report	Duty report			
8	bonus	scholarship			
9	Well being	Human being			
10	Background	backcloth			
11	Joint venture	Exchange dinner			
12	Commercial purpose	Political purpose			
13	venture	denture			
14	mission	Objective			
15	motto	lotto			
16	subdue	reduced			
17	vigour	rigour			
18					
19	Figurative meaning	Metaphoric meaning			
20	Multi national company	Multi lateral agreement			
21	Call off	Send off			
22	tycoon	?			
23	dominator	dominant			
24	values	outlook			
25	adolescence	adult			
26	alumni	alumnus			
27	eligible	tangible			
28	scholarship	grant			
29	Pluralistic	heterogeneous			
30	Within one's reach	Beyond one's reach			
31	Humanity(ies)	literature			
32	via	viz			
33	recruiter	enroll			
34	Log on to	Log off			
35	Surf the internet	dive			
36	Browse some pages	scan			
37	charter	constitution			
38	timid	coward			
39	shy	nervous			
40	collateral	lateral			
41	Thanks to	Due to			
42	sour	failed			
43	Stockbroker	shareholder			
44					
45	ordeal	ideal			
46	Loud colour	Dark music			

A checklist for John

	Words being codeswitched	Words which didn't appear in the lesson but thought to be of similar difficulty to the ones being codeswitched	Definitely know	Probably know	Don't know
1	collocation	restitution			
2	deliberately	inadvertently			
3	echo	tail			
4	clash	mash			
5	dispose	dump			

6	ideal	idol
7	universal	incept
8	constitute	substitute
9	concept	cognition
10	assemble	resemble
11	panic	anxiety
12	rage	outrage
13	rationality	sensibility
14	simplification	oversimplification
15	Contract	agreement
16	chaos	catastrophe
17	Assembly line	Cash point
18	Laughing stock	victim
19	resemble	tremble
20	will	determination
21	access	excess
22	At the mercy of	At the cost of
23	fatal	deadly
24	Immune system	Respiratory system
25	A cave man	A YES man
26	Decision making process	Policy making procedures
27	Date back to	Fast Forward to
28	trace	track
29	Cliff climbing	Bungee jumping
30	pollutant	chemical
31	Adapted with	Equipped with
32	Mechanical failure	Electrical surge
33	notice	poster
34	Car rentals	Line rental
35	Role models	Role play
36	destructive	constructive
37	appreciate	gratitude
38	parody	exaggeration
39	trauma	insomnia
40	hurricane	Tsunami
41	priorities	minorities
42	trial	tribulation
43	thoughtful	cheerful
44	Considerate	considerable
45	Enthral	intrigue
46	Notice	forum
47	Digest;	congest
48	Negate	deny

Appendix 3.8 Codeswitching Coding System (Macaro 1998: 138-140)

relationships between classroom events and RL1s by the teacher because of the incomplete nature of the observable data.

As outlined above, there are 2 stages in the process of analysing the video data which we can consider as: (i) quantitative data on L2/L1 distribution (ii) qualitative data on possible causes of RL1.

5.3.2 The video quantitative data

Video-recordings were observed a first time using a 5 second observation schedule (see Appendix 5 for an extract) and an audio-recording of pulse/signals every 5 seconds. The objective here was to produce quantitative lesson profiles (see Appendix 1) that would provide an overview of L2/L1 interaction and initial layer of data internal to the study. In addition, (and concurrent) to this 5 second sampling, a control was carried out by using a stop-watch to calculate the total lesson time in minutes and seconds. The total number of five second intervals (total lesson time in samples) was then matched to the total lesson time. On only 2 occasions did the two times concur completely although there was never more than 0.5 of a minute difference. This discrepancy can be attributed to the following factors: lack of concentration on my part as I recorded the samples; the time it takes to operate stop watch, video play-back machine and the tape recorder with the pulses at the same time and at the beginning and end of the recording; the inaccuracy of the five second pulses; the fact that both audio and video tapes stretch slightly[2].

A mark was placed in the observation schedule according to whether the utterance <u>on the signal</u> or the first utterance <u>after the signal</u> was :

1. the teacher using L2 (TL2)
2. the teacher using L1 (TL1)
3. a pupil/pupils using L2 (PL2)
4. a pupil/pupils using L1 (PL1)
5. pupils involved in pair/group work L2 oral activities (PW)
6. pupils involved in reading or writing activities (R/W)

Thus "pupil talk in L2" (Appendix 1) does not include pair or group work. This total is given in "Opportunities for pupil talk in L2"

Although this categorisation covered fairly adequately general linguistic events or activities in lessons, there were some phenomena which needed further categorisation. The first of these was when a taped text was providing exposure to the L2 instead of the teacher. This was marked with a T on the schedule in the TL2 row and then calculated as a separate linguistic event. The second was when there was silence (usually for brief periods) which was obviously an embedded part of a discourse segment. An example of this would be when the teacher is conducting a question and answer sequence but breaks off to locate or adjust some visual material and does not fill in the silence with "peripheral chat". This was marked with an [S] on the schedule in the TL2 row. However, even this was problematic. As mentioned above, if the beep came on a silence the next utterance was used as an identifier. However, if the silence continued between signals, i.e. there were 5 seconds of silence, did this constitute a real break in the on-going discourse or was it: the teacher drawing breath; the teacher allowing time for pupils to respond; the teacher "waiting for silence" as a disciplinary intervention and then "hanging on" for 5 further seconds? Clearly it was impossible to make snap decisions when running though the tape. Thus for the benefit of the quantitative analysis I made an arbitrary decision based on length rather than "reason for the silence". I have therefore included as silence in the statistics only those [S] which occurred next to another [S], in other words at least a 10 second silence. This decision was backed up by the qualitative data in that 10 second silences never occurred in the data as "hanging silences" for the three reasons (amongst others) given above. In addition, single [S] were categorised as L1 embedded silences or L2 embedded silences according to the *previous* marked item as follows:

Example 1:	TL2 / / / / [S] / / / /	(S is part of TL2 total)
Example 2:	TL1: / / [S] / / /	(S is part of TL1 total)
Example 3:	TL1: / / / / / /[S] TL2/ / / /	(S is part of TL1 total)

There were other considerations. Pupils' names used by the teacher were left as part of TL2 even though they were English names. However, when the coding signal fell on a pupil's name in the middle of a TL1 utterance it was coded as TL1. If it fell on the pupil's name at the beginning of a TL1 utterance where the TL1 utterance began within the 5 second gap, it was coded as a TL1. If the coding signal fell on a pupil's name at the end of TL1 utterance (which was then followed by a TL2 utterance) it was coded as TL2. It can be argued that there is a rationale for this based on discourse theory in general and speech acts in particular but there is not enough space to go into it here. The following are examples of the coding for pupils' names:

<signal>
Example 1: TL1//[pupil's name]//TL1 (coded as TL1)

<signal>
Example 2: [pupil's name]//TL1 (coded as TL1)

<signal>
Example 3: [pupil's name] [5 secs. S]TL1// (coded as TL2)

<signal>
Example 4: TL1// [S][pupil's name] TL2//(coded as TL2)

When pupils responded in chorus in L2 (e.g. group repetition) this was calculated as part of general pupil talk (PL2). There is thus no distinction made between repetition and productive-creative pupil use of L2. There was also "activity overlay talk". This was when the teacher talked to the whole class during a reading or writing activity.

If the space I have allocated to the finer points of coding seems disproportionate to the emphasis I have placed on the quantitative data in the ethnographic framework as a whole, this is because I am offering some solutions to future researchers to some of the technical questions regarding sampling of this sort.

Lesson 5 Origin ~~538~~ 538 :44:53. Total: ~~538~~ 538 Silence: 5

TL2: ~~296~~ 310 Pause: ~~26~~ 21

TL1: ~~27~~ 130

SL2: ~~153~~ 74

5 10 15 20 25 30 35 40 45 50 55 60 5 10 ~~15 20 25~~ 30 35 40 45 50 55 60

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
TL2		/	/	/	/	/	/	/	/	/	/	/	/	.	/			/		/				/	16
TL1																									
SL2	/										/			/		/			/		/	/	/		8
SL1																									
PW																									
R/w2																									
	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	
TL2	/	/	/	/		/	/	/	/	/	/	/	.	/	/	/	/	/	/	jam	/	/	/	/	21
TL1																									02
SL2					/															/		jam			
SL1																									
PW																									
R/w2																									
	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	
TL2	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	24
TL1																									
SL2																									
SL1																									
PW																									
R/w2																									
	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	
TL2	/	/	/	/	/		/	/	/	/	/	/			/	/	/	/	/	/	/			/	18
TL1						/		/					/	/					/	/					5
SL2																									
SL1																									
PW																									
R/w2																									
	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	
TL2			/	/	/	/	/	/	/	/	/	/	/	/	.	/			/	/	/	/	/		18	97
TL1	/	/													/		/	/							5	5
SL2																					/				1	11
SL1																									
PW																									
R/w2																									

Appendix 3.9 Coding Sheet for Timed Analysis

1

Appendix 3.10 The transcription conventions

C: Cindy speaks

J: John speaks

R: Researcher speaks

MS: Male student speaks

FS: Female student speaks

Ss: Students speak

(.) : Pause of less than one second

(Additional notes): classroom atmosphere/ non-verbal communication

(inaudible): Inaudible/ unclear utterance
Tr: translation

Appendix 4.1 Interview transcript for Cindy

R=Researcher; C=Cindy

R: My first question is what do you think of students using all or nearly all target language?

C: Ah…

R: What do you think of students using all or nearly all target language? This question looks at learners, aspect in the classroom. What do you think of them using all or nearly all target language?

C: The target language here refers to , you mean is English, right?

R: Yes. Using English.

C: Erm, actually it's very hard for students to use English, I mean, pure English in the classroom.

R: Erm.

C: Because I'm teaching non-English major students, if I force them to speak English all the time, I mean, one hundred percent in English in the classroom, I think, they will feel very awkward. They won't feel very, you know, happy about themselves and they may lose their confidence, so I wouldn't force them to speak English. If they can't use English, they say sorry, it's OK, they can say in Chinese. I just need their idea. I never force them to speak English. For their (learners') benefit, I think it's better for them to try to speak English as much as possible. But I'm afraid that their level cannot reach that.

R: Why? Why? Why do you believe that learners should use English as much as possible in your case? Why?

C: Because outside the classroom they almost have no opportunities to speak English so they should try to make use of every opportunity to speak in the classroom, I think.

R: Where, where does your beliefs come from?

C: My belief comes from my own experience. I think that they haven't got enough time. They are engineering major, science major, very ,very busy with their own studies. So I' m quite sure that they have no time in speaking English after class.

R: Erm, that's about my first question. My second question is, have you heard about total immersion in second language? By total immersion I mean student use English only, without any use of their moth tongue. Have you ever heard about it? This teaching approach? This learning approach?

C: You mean?

R: Total immersion, have you heard about it before?

C: Never. You mean for English major or non-English major?

R: Erm…maybe generally speaking.

C: Generally speaking…

R: Just for, for the English learners.

C: Maybe take me for example, I study English in college as a major and I think its kind of immersion (laugh) teaching approach.

R: Why?

C: When I studied English, at that time, when native speaker teachers teach us spoken English, we haven't got any chance to speak Chinese. I think that's a kind of immersion. Is that right?

R: Good. Now the third question is related to your beliefs about how much Chinese should be used or should not be used or I mean if you believe that Chinese should be used, erm, then used in what aspects? What functions can Chinese play for English learning? And here we have the first question; do you believe that Chinese should be used for learning about grammar, and the usage of foreign language?

C: Yeah, of course. I think Chinese is very important in teaching students learning grammar, and because if I teach them, say, I teach you the subjunctive mood, if I don't say 虚拟语气[tr: subjunctive mood], probably most of them can't understand this very technical term. They cannot understand it.

R: I think you can teach subjunctive mood without letting student feel conscious of the name of technical terms.

C: The name of subjunctive mood, but if I explain it in English it's very very hard.

R: What about the…? Do you believe that Chinese should be used for instruction, or for example, discussion? Should Chinese be used to describe test, quizzes and other assignments?

C: And what kind of assignment do you think?

R: Yeah. I mean. Well, assignments are, discussions of tests, quizzes and some assignments.

C: Yeah.

R: For example, the writing assignments that you asked students.

C: Erm.

R: The oral assignments you asked to do?

C: Usually I …Yeah. Usually I speak English first and then I translate in Chinese.

R: Why?

C: To make sure that every student understand what I want them to do after class, for example, what assignments are about?...because you know our students differ much in their ability of listening levels. So some students might not be able to understand totally what an assignment is about. I do not want them to do the wrong tests so I will translate them into Chinese. Usually I speak twice.

R: So, so, it's students I mean, I mean, I means, sorry, I mean you want to ensure comprehension.

C: Yeah.

R: About the instructions.

C: Yeah.

R: That's why you want to use Chinese, in addition to English. To make sure that students can absolutely understand what you are asking them to do.

C: Yeah, right

R: The last one, do you believe that Chinese should be used for I mean discuss course policies, attendance and any other administrative information? Do you believe that Chinese should be used in that way?

C: you mean, lesson attendance and some disciplines in the classroom. Yes. Sure.

R: For example, if a student keeps coming late you stop him or her… …

C: I usually ask them why they are late.

R: In Chinese or English?

C: In English. But they might answer me in English so if they answer me in English I respond in Chinese so this is just like a stimulated response. If they speak Chinese they don't wan to speak.

R: But once I observed your lessons and I found some students at the back of the class make some noises. Have some disciplinary problems. Start using Chinese.

C: Yeah, right.

R: In a ort of like shouting (laugh)

C: Yeah. Right. But.

R: But do you believe that it does work?

C: Maybe.

R: Using students' mother tongue.

C: Yes. It, does work it works better than pure in English,. Because to show my angry, anger.

R: Well. You can show your anger in English as well.

C: I don't think that I can show my anger totally in English. Maybe mother tongue (laugh)

R: Does it work?

C: Because when I feel excited probably I will speak Chinese instead of English I think it is an instinct.

R: Excellent. Do you believe that regardless of how much foreign language students choose to use the instructors should use foreign language all the time in the classroom? Do you believe that, let me repeat, regardless of how much foreign language students choose to user instructions the teachers should use foreign language all the time in the classroom?

C: I don't think so. I think teachers should try to use foreign language but not totally. Because for the, I mean, what's opposite for the target language?

R: Mother tongue.

C: Sometimes I use mother tongue to, to, to, to stimulate students to the listening to the lecture when some students become bored or absent minded. Okay. it' Chinese, mother tongue. To cheer up, to arouse or make them more excited you know, and of course I don't' use Chinese the mother tongue from time to time but sometimes I should do a scatter of Chinese during the whole lesson, to be used as stimulus.

R: So you actually, so you actually believe that teacher can use some Chinese.

C: Yeah.

R: If it can be justified. And the teacher's justifiable use of Chinese seem not very elated to how much target language students choose to use. For example, students choose not to speak any target language but you believe that you as a teacher can use the target language all the time or you can add in some Chinese.

C: It depends on the situation.

R: What situation?

C: If they use target language all the time or student s are competent enough they should use target language all the time and I think I d better use the target language all the time. But if…I don't think this situation can happen in my class (laugh)

R: And another thing, let me ask you, do you believe that foreign language student should use foreign language the entire time they are in the classroom with the instructor and their students even when not working on a specific activity?

C: Can you give me an example?

R: Foreign language students should use foreign language all the time. They are in the classroom with both the instructor and their students even when not working on a specific activity. For example,. Without any exceptions, the activity might, might be easily trigger students with teacher interacting with their teacher and interacting with their peers they should stick to.

C: I don't think sticking to the use of the target language exclusively is exactly good. Sometimes, I need to use the mother tongue to give them (students) some ideas to open their minds. But speaking the target language only to them? Probably they cannot think in a proper way, they cannot think as openly as possible. They cannot achieve that goal. If we use the mother tongue, sometimes probably they can, I think, they can use, like, we say, sometimes apply some lateral thinking instead of vertical thinking; that is to say, think more open-mindedly. Because higher education for me is just like elevating one's mind, improving one's ways of thinking apart from just teaching them English.

R: Thank you for that. Another question, have you come cross the term language switching? Switching of the language? Switching of the language? Code switching? Have you come across that?

C: Where? You mean during the lesson?

R: I mean you read it you practice it and you believe in it. The notion of language switching.

C: I think I have heard about it. This little fuzzy concept in my mind. Probably in my graduate study. Codeswitching. But I'm not that clear about what it is. Ok, I got another question this is an interesting question. How would you describe your approach of teaching English? I have got the list of four choices, for grammar translation, do you have an idea of grammar translation?

C: No.

R: Have you heard about it?

C: No.

R: Have you read about grammar translation approach?

C: Never (laugh)

R: What about Communicative approach?

C: Maybe I have heard of it, but not exactly. I mean I cannot define it.

R: Yes. Direct method?

C: Direct method.

R: And the last one is the mixture of the above. I think my understanding of grammar translation is that, this is a very controversial issue. Some think it is outdated, out of fashion, but I don't know whether I can give you some of my ideas about grammar translation. It is an approach of teaching English. I mean teachers teach lots of grammar rules.

C: A little bit like high school teachers.

R: They don't normally teach spoken English. They teach lots of reading literature. They translate a lot and use a lot of Chinese.

C: Explain grammar a lot. OK. I can understand it.

R: Communicative approach is relatively more, more, I don't know (laugh) ah, relatively I mean using spoken English more target language, used by teachers and students and it seems to me that all of the interaction between teacher and students and between students and students. Pair work, group work, fill in information gap and communicative, I mean to communicate. Direct method, if I were not wrong, when we were learning English as a major student in the university I thought the teacher there were using direct method. They use as much English as possible, direct method. They believe that English should be taught by the medium of English.

C: What's the difference between direct method and communicative approach.

R: Direct method and communicative approach. I thin they overlap somewhat. I can't clearly draw a line.

C:Maybe communicative approach is more interactive, I mean it's more interactive between student and teachers and may be direct method is more orient to teachers.
R: Maybe,

C: I think I use a mixture of them (laugh)

R: Yeah. I'm grappling with that as well.

C: And the fourth one is a mixture, right?

R: Mixture, right. Nobody describes your programme a mixture.

R: I think it is a mixture. Are you really sure that you don't' know anything about grammar and translation. It seems that…

C: I, I, I haven't' heard about this term but I know what it is now.

R: Right.

C: Erm.

R: Have you heard about some other? Okay well, I think it still… question number seven is what percent would be for you an appropriate use of Chinese in an English lesson?

C: (Laugh)

R: Ah, functionally, we have, functionally, what purposes and then we have, quantitatively as we, roughly, what percentage do you use Chinese? First let us look at functionally, what would be on what purposes, why do you use Chinese in an English lesson? For what purpose?

C: Mm, the function is, ah, for explaining difficult language point.

R: Right.

C: For teaching difficult grammar.

R: Right.

C: For teaching difficult words, phrases and something like that.

R: Right.

C: Another function is to encourage students to develop their thinking, to enhance their interest because when the students listen to their mother tongue they become more excited. I 'm sure, yeah, mainly these two functions.

R: Right. Erm, what about roughly what percentage would be appropriate use of Chinese in an English lesson according to you?

C: Well, in my opinion, ah less than twenty percent.

R: Less than twenty percent?

C: Yeah.

R: Right. Ok. Erm, we have finally come to the last one, what influence your amount ands choice of, what influences your answers to the question I just asked?

C: Which question?

R: The one I just asked. A minute ago. What influence your ideas and belief about? Is it from governmental agencies? Institution? Or form student requirements, expectations?

C: No,no, not from the government. I think from myself.

R: Institution means from your school? Students requirements and expectations, what about them?

C: Not exactly from student expectations and requirements. I think, probably half from student requirements and expectations and half from myself. From myself actually.

R: Questions are over and have you got any extra comments to make?

C: No.

Appendix 4.2 Interview transcript for John

R=Researcher; J=John

R: What do you think of students using all or nearly all target language? This is how the question is worded. What do you think of students using all or nearly all target language?

J: You mean, on the part of students or on the part of me, the teacher?

R: On the part of you. Your ideas and perceptions.

J: I think the ideal teaching should be conducted 100% in English. I mean the ideal teaching. But the condition for this ideal teaching is that both teachers and students have absolutely no difficulty in understanding each other. This should be a goal that we are after, but if this condition was not available, codeswitching, or the use of Chinese (L1), seems necessary. This is obvious and evident. And I don't want to elaborate a lot on that.

R: Then no need for me to ask you the second question because the second question here is why. And you have explained why. The third question is where do these beliefs come from? Where did you arrive at the above beliefs? The above ideas?

J: This has to do with not only my perceptions and understanding of language learning but also my experience of years of teaching English as a foreign language. Language learning should be conducted through activities. Students acquire language by exposing them to the language. Students should also learn by using the language, the process, so ideally the teaching and learning should be conducted 100 percent in the target language. Bu the reality here is different. And it will inevitably involve the interference of mother tongue, those so-called positive transfer or negative transfer.

R: Yeah those technical terms.

J: I think I have answered your questions already, haven't I?

R: The second question is, have you ever heard about the immersion programme? That kind of approach? Have you heard about the total immersion in foreign language classes?

J: Ah, the thing is, well, immersion, as I just said, is ideal but regrettably, it would be less easy to do it in a classroom full of advanced level learners, I think. What do I mean by that? For example, for children learning words, immersion is practically possible, some flashcards and drawings, you say 'book', the child follows you and repeat 'book', and you don't need to say the complete sentence and you don't need to express your ideas. In this case, the immersion approach can be applied. But as for the real exchange of ideas in the class, this approach is inferior, a bit impossible to do. But of course, when learners move up one more level, immersion may be helpful again for real communication.

R: Wow, it's new, isn't it? It could be a new theory. Erm, the third one is about Chinese in the English classroom. Do you believe that Chinese should be used for in the following three aspects: learning about the grammar and the usage of the language?

J: I think this is not a question of should or should not; if you do not use it in the situation, students can't make sense of what is going on. Communication then breaks down. In this case, the use of Chinese should be permitted. This is not a theoretical or ethical question of should or should not. Pressed for the need, the question should be asked about should or should not. When the problem and barrier emerge, one should start dealing with them. Otherwise, your teaching or your communication are not complete, and the communication can go no further, so in this case Chinese should be used.

R: In addition to the grammar and the usage of the language, what about the discussion o the tests, the assignments and those instructions for how to go about the exams and homework, under these scenarios?

J: Under these scenarios I use Chinese. I consider less whether or not students can understand. In fact I require them to be absolutely clear what I want them to do because students are very concerned about the exams and I want them to be informed

clearly about the data and the format and the content of exams. So in order to make sure that students understand the important instructions like how to go about sitting for exams etc I use some Chinese.

R: Yeah. I also observed you when you were doing strategy training for example you teach students how to take the test by using some Chinese.

J: Yeah. So much for the first two sub questions. And one more sub question is, do you think Chinese should be used for discussing course policies, attendances and other administrative information?

J: Yes. Yes. This not only requires me to say exactly what I mean but also students can be told what they are supposed to be told. And the use of some Chinese can function as a reminder, emphasis and kind of warning. I indeed use Chinese to some extent.

R: But what's interesting is from my own observation that for a few times you talk to those late-comers: "Why are you late for the class?" This use of English, I think, might be more effective than Chinese?

J: You said it. I think this can be understood as a kind of reprimand or as a reward. Since you were late I would force you to use English for explanation. If they don't want to speak they would not be late again.

R: Yeah. Another similar question is about the quantity of the use of Chinese. Do you believe that regardless of how much English students use the instructor should use foreign language at all times in the classroom? Do you believe in that?

J: As I mentioned before, I don't quite agree that. If you invite a native speaker to come, if students couldn't understand, that may lead to the failure of fulfilling the expected goal of teaching.

R: As you pointed out previously that there are certain stages of foreign language learning. At certain stage, certain teaching practice may be favoured and preferred.

J: Yes. Exactly.

R: Do you believe that students should use foreign language the entire time when they are in the classroom even when they work on some specific activity?

J: This is an ideal state of teaching and learning. So far, it would be completely possible in china, I think. But actually I think it will do good if students use English more. If they couldn't find the right words to express them I even encourage them to do codeswitching. I thought this would be easier for students to do but in reality it is not easy I mean changing code. Sometimes for example, a person who stays overseas for quite some time the working language available there is English, but when he returns to talk with Chinese countrymen, he sometime couldn't find the right Chinese words to use. So inevitably he speaks an English word to replace. This is a result of natural codeswitching thanks to years of experience and its highly advanced. Sometimes when students are not competent enough in both languages it would more challenging for them to perform. It might be a lot easier for a teaching professional, but students are hardly able to do so. Use some Chinese when they fail to do codeswitching. It sounds easy but far from it.

R: Yeah. I couldn't agree with more. Codeswitching can be a kind of competence possessed by bilinguals in a multilingual environment. Some theories support that.

J: I don't have a theory but I just feel so.

R: Both languages should be highly efficient.

J: Yeah. Highly efficient. Yeah. Suddenly when he gets stuck with one word in one of this language the word from other language pop up and vive versa.

R: Have you come across the term 'language switching'?

J: Yeah. Language switching and codeswitching are the same, are they? Language is a code, isn't it?

R: The next question is what would be for you an appropriate use of Chinese in an English lesson|? Functionally for what purposes? What would be an reasonable amount of codeswitching if we add a bit of Chinese in the lesson?

J: For example, when I am emphasising, when I am being humorous. Actually the essence of my decision-making is that I want to ensure their comprehension. Comprehension is the key thing here. And also when I want students to enjoy some humour from me. Also when students feel difficult to understand, I would use some necessary Chinese. If I feel that my expression gets difficult, for example, some English vocabulary, of which an exact matching equivalent in Chinese is hard to find. So in this case, the use of English vocabulary may make things worse, for example, student may get more baffled. So some Chinese may help to clarify. So I will use it in this situation.

R: Good. Well, quantitatively, roughly what percentage do you think appropriate?

J: Actually I have no idea. Because I don't even have any concept. That largely depends and varies.

R: Well what influence your beliefs? For example, by the government, institution, student requirement and expectations.

J: This is entirely based on my own teaching experience and learning of foreign language.

R: Well, I should have included one more category here. That is, if the beliefs come from one's personal experience. I haven't really reflected on the issue but gradually picked up these ideas.

R: Yeah. It would be helpful sometime to reflect on your practice and the past. Well, the last question, very simple, is about teaching methodology. How would you describe your approach and method to teaching English? Here we have got a list of

options for you to choose from. Grammar translation, communicative approach, direct method, and the mixture of the above. Can you conclude on your teaching?

J: Personally, I prefer communicative approach.

R: Communicative approach.

J: Yes. Is it similar to the direct method?

R: Well, it should be more or less the same.

J: Yes. I thought so.

R: Well, direct method. My understanding may emphasise more on the use of target language. Communicative, mainly some pair work or group work.

J: Well, maybe my approach is not like that. But I personally like that.

R: Maybe yours is something between the communicative and the direct method.

J: But in fact, my beliefs are, if that's a mixture, that might be primarily a mixture of the communicative approach and direct method.

R: Thanks a lot.

Appendix 5 Correlation data for phase 2 study (Kendall's tau data)

1. The relationship between TL1 and SL1

Cindy	Tau=. 691; N=8; *p*=. 018*
John	Tau=-.546; N=8; *p*=.061
The whole corpus	Tau=0.180; N=16; *P=0.340*

2. The relationship between TL1 and SL2

Cindy	Tau=.214; N=8; *P=.458*
John	Tau=-.429;N=8; *p*=.138
The whole corpus	Tau=-0.042; N=16; *P=0.822*

Appendix 7 TESLK results

1.Vocabulary Knowledge Assessment Data from Cindy

Do you think your first year undergraduate students know the following English words or expressions before you explanation of them in your lessons? Please tick √ to choose one answers you think appropriate from the right three columns.

（Chinese translation of the above: 您认为您的一年级本科生在课前就知道这些单词和短语的意思吗？请您在右面的三个选项中√选一个你认为合适的答案）

	Words and expressions	1.Definitely know the words and expressions (Chinese translation: 一定知道这些单词和短语)	2.Probably know the words and expressions (Chinese translation:有可能知道这些单词和短语)	3.Don't know the words and expressions (Chinese translation: 不知道这些单词和短语)
	Words being code switched (N=40)	8; 20%	18; 45%	14; 31%
1	**career**	√		
2	entitle			√
3	**career women**	√		
4	extraordinary		√	
5	**extra-curricular**			√
6	duty report	√		
7	mass media		√	
8	journalism			√
9	**no more than**	√		
10	professional women		√	
11	scholarship		√	
12	**subtitle**			√
13	human being	√		
14	**book report**		√	
15	backcloth			√
16	**bonus**		√	
17	profession			√
18	**well being**			
19	no less than	√		
20	**background**		√	
21	denture			√
22	**joint venture**			√
23	political purpose		√	
24	**commercial purpose**			√
25	objective		√	
26	venture			√
27	reduced		√	
28	**mission**		√	
29	exchange dinner			√
30	**motto**			√
31	rigour			√
32	**subdue**			√
33	lotto			√
34	**vigour**		√	
35	heterogeneous			√
36	**figurative meaning**			√
37	adult	√		
38	grant	√		
39	outlook		√	
40	**call off**	√		
41	alumnus			√
42	**tycoon**			√
43	tangible			√
44	dominator		√	
45	send off	√		
46	**values**		√	
47	multi lateral			√

	agreement				
48	**adolescence**				√
49	dominant	√			
50	**alumni**				√
51	metaphoric meaning				√
52	**eligible**				√
53	**multi national company**			√	
54	**scholarship**			√	
55	beyond one's reach	√			
56	**pluralistic**				√
57	**within one's reach**	√			
58	literature			√	
59	dive			√	
60	**humanity(ies)**			√	
61	scan	√			
62	**via**			√	
63	constitution			√	
64	**recruiter**			√	
65	failed	√			
66	**log on to**			√	
67	ideal	√			
68	**surf the internet**	√			
69	dark music				√
70	**browse some pages**			√	
71	shareholder			√	
72	**charter**			√	
73	lateral				√
74	**timid**			√	
75	due to	√			
76	**shy**	√			
77	enroll			√	
78	**collateral**				√
79	log off			√	
80	**thanks to**			√	
81	nervous	√			
82	**sour**	√			
83	viz				√
84	**stockbroker**			√	
85	**ordeal**				√
86	coward			√	
87	**loud colour**			√	

2. Vocabulary Knowledge Assessment Data from John

Do you think your first year postgraduate students know the following English words or expressions before you explanation of them in your lessons? Please tick √ to choose one answers you think appropriate from the right three columns.

（Chinese translation of the above: 您认为您的一年级本科生在课前就知道这些单词和短语的意思吗？请您在右面的三个选项中√选一个你认为合适的答案）

	Words and expressions	1.Definitely know the words and expressions (Chinese translation: 一定知道这些单词和短语)	2.Probably know the words and expressions (Chinese translation: 有可能知道这些单词和短语)	3.Don't know the words and expressions (Chinese translation: 不知道这些单词和短语)
	Words code switched(N=43)	27 62.8%	16 37.2%	5 11.6%
1	**collocation**		√	
2	line rental			√
3	**deliberately**	√		
4	poster		√	
5	echo	√		
6	role play	√		
7	clash			√
8	gratitude		√	
9	**dispose**	√		
10	forum		√	
11	**ideal**	√		
12	insomnia			√
13	intrigue		√	
14	**universal**	√		
15	congest		√	
16	**constitute**	√		
17	considerable	√		
18	**echo**	√		
19	**assemble**	√		
20	victim	√		
21	Tsunami			√
22	deliberately	√		
23	**panic**	√		
24	catastrophe		√	
25	**rage**	√		
26	universal	√		
27	**rationality**	√		
28	**clash**			√
29	**simplification**	√		
30	constitute	√		
31	**contract**	√		
32	assemble	√		
32	**chaos**	√		
33	ideal	√		
34	**assembly line**	√		
35	dispose	√		
36	**laughing stock**		√	
37	constructive	√		
38	**resemble**	√		
39	cheerful	√		
40	will	√		
41	**tribulation**			√
42	**access**		√	
43	exaggeration		√	
44	**at the mercy of**		√	
45	sensibility		√	
46	**fatal**		√	
47	oversimplification			√
48	**Immune system**		√	
49	cash point			√
50	**a cave man**	√		
51	minorities	√		
52	**decision making process**	√		
53	excess		√	
54	**date back to**	√		
55	**at the cost of**	√		
56	**trace**	√		
57	deadly	√		

58	**cliff climbing**	√		
59	a YES man		√	
60	**pollutant**		√	
61	fast Forward to			√
62	**adapted with**		√	
63	policy making procedures	√		
64	**mechanical failure**	√		
65	track	√		
66	**notice**	√		
67	respiratory system		√	
68	**car rentals**		√	
69	**role models**		√	
70	Bungee jumping			√
71	**destructive**		√	
72	chemical	√		
73	**appreciate**	√		
74	Equipped with		√	
75	**parody**			√
76	Electrical surge			√
77	**trauma**			√
78	**hurricane**		√	
79	**priorities**		√	
80	restitution			√
81	**trial**		√	
82	**thoughtful**	√		
83	**considerate**	√		
84	**enthral**			√
85	notice	√		
86	**digest**		√	
87	inadvertently			√
88	tail	√		
89	mash			√
90	dump	√		
91	idol		√	
92	tremble		√	
93	incept			√
94	agreement	√		
95	substitute		√	
96	cognition			√
97	resemble		√	
98	anxiety	√		
99	outrage		√	
100	determination	√		